Longwood Program

RECOMMENDATIONS FOR A CIRCA 1870-1885 WORKER'S

VEGETABLE GARDEN AT THE HAGLEY MUSEUM

by

Karen Marie Probst

A non-thesis project submitted to the Faculty of the University of Delaware in partial fulfillment of the requirements for the degree of Master of Science in Horticultural Administration

December 1987

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Project 2

Chapter

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Chapter 1

INTRODUCTION

The Hagley Museum of Greenville, Delaware preserves and interprets the industrial history of the Brandywine Valley. The homes, gardens and lifestyles of the mill workers of the E.I. duPont de Nemours & Company hereafter referred to as the DuPont Company are a vital part of that history. The projects that follow focus on the vegetable gardens tended by the mill workers that lived adjacent to the yards where black powder was manufactured. It is a practical planning document to assist the staff of the Hagley Museum in recreating and maintaining the vegetable garden of a mill worker as it would have existed during the period 1870 to The garden described herein does not represent that 1885. of a particular individual, but is intended to be typical of that tended by an Irish millworker and his family.

The period from 1870 to 1885 includes the xenith of the DuPont Company's black powder industry, which is the focus of museum interpretation at Blacksmith Hill. This particular time period coincides with the career of an important

mill worker, John Gibbons, who was the foreman of the Hagley Yards from 1859 to 1885. During these years Mr. Gibbons and his family resided in a company owned house built in 1842 and identified in the company's pay ledger as "house no. 3, the third house from the old school house".¹ The historic structure still stands today on what is now known as Blacksmith Hill above the Hagley Yards. It is one of the few worker's homes still in existence on museum property. The house was restored and is now open to the public. The building is interpreted as the home of John Gibbons.

A profile of John Gibbons compiled by the staff at Hagley described him as an Irish immigrant, coming from a land where farming was an important lifestyle. We know that by age forty four, John Gibbons was literate, the head of a family of eight, loyal to the DuPont Company and making his home in company housing adjacent to the powder yards.² Such a description could be applied to any number of men making their living from the manufacture of black powder on the Brandywine during the late nineteenth century. The proposed vegetable garden is also intended to be typical of the period.

Working under the direction of Frank McKelvey, Curator of Mechanical Arts at the Hagley Museum, I have created this document to aid in the planning and maintenance of an

outdoor exhibit. The vegetable garden will not only enhance the visitor's experience by recreating a part of the landscape appropriate to the period, but it will also preserve valuable heirloom vegetable varieties, that without constant rejuvenation through growth, would be lost forever.

I have not located concrete evidence that would prove that John Gibbons tended a vegetable garden while he lived on Blacksmith Hill. We do know however that subsequent families that lived in the same house, and many other families that lived in similar communities on the banks of the Brandywine did tend family vegetable gardens.

Quite a few places where they had gardens. Below us here at the Blacksmith Shop, below Mr. Sharpley's,-- that was in gardens -- I don't know how many. But I believe the powdermen had them. In fact, I helped to dig them one time.³

In order to recreate the garden it was necessary to investigate the actual site which might bear traces of evidence of permanent garden structures. This investigation conducted by the museum yielded no evidence pertinent to the garden. Period photographs of the area, local newspapers, inventories and correspondence, yielded only small amounts of information. As a result the most valuable resource has been the oral accounts of people who lived in or visited these communities during the late nineteenth century.

Interviews performed before 1983 by employees and volunteers of the Hagley Museum yielded some pertinent information about the gardens. However, as gardening was not the primary focus of these earlier interviews, the information is understandably sketchy. Interviews conducted after 1982 by myself, Hagley employees and volunteers have concentrated specifically on gardening. The information they have revealed creates a much clearer overall picture of this aspect of the lives of the mill workers and their families.

The people interviewed were the sons and daughters of mill workers, who were children during the late nineteenth and early twentieth centuries. Fortunately, gardening is a skill that is commonly passed from one generation to the next. A major premise of this project is that information provided by the informants was relevant to the previous quarter century. As Eugene Bruno stated, "Everything that my parents had done I sort of know, and I follow suit."⁴ Other references which were relied upon heavily included mid-to-late nineteenth century horticultural texts and seed catalogs.

Chapter Two of this project is a listing of vegetables that were grown by the mill workers in family gardens. Each vegetable is treated separately. The interviews in which the vegetable is mentioned and any photographs of worker's

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gardens in which the vegetable was identified are listed immediately under the heading. All primary evidence of the growth of that particular vegetable is then detailed. The <u>Culture</u> section gives in-depth instructions on how and when to plant. In this part I have used the information supplied by the informants, but I have also drawn heavily on information provided in nineteenth century seed catalogs and gardening manuals when the recollections of the informants failed to clarify the entire picture.

A section on <u>Pests and Diseases</u> includes a list of those that can affect the particular vegetable in the northern Delaware area. Any information provided by informants on the presence of insects and diseases and measures used to control them is also included. In most instances no problems were recalled. My feeling is that the powdermen followed the advice W.W. Rawson gave in 1887 for controlling garden pests:

Every year's experience with the enemies that attack plants in the open field convinces me that with very few of them can we successfully cope. The remedy, if remedy it is, for rust, smut, or mildew parasites, must, in my opinion, be a preventative one;...⁵

...This view points us to the main remedy or preventative of all disease, -- and more particularly the chief preventative against every form of vegetable parasite, viz., clean and nourishing culture... It is good policy, alike as against the fungi and the insect pests, to put all the vigor we can into the growing plants.⁶

Chemical controls cost money and as the powdermen were of necessity economy-minded, they relied a great deal on "clean and nourishing culture". The soil was enriched in the spring with well-rotted manure from local livestock. In the fall garden debris were gathered together in a corner of the garden and burned. The technique of handpicking insects was a common control method used by the powdermen. Only against insects which damaged important vegetable crops such as potatoes, tomatoes and cabbage, did they employ chemical means.

Fencing should be erected to exclude mammalian pests, including humans. Three photographs in the Hagley archives document a style appropriate to reproduce to surround the garden.⁷ (See Figures 1,2,3) Chemical controls described in this project should be employed when legally and economically practical. The New Castle County Cooperative Extension Service Office at the University of Delaware can provide current pest and disease controls. Two books that I highly recommend for the identification of insect and disease pests are <u>The Color Handbook of Garden Insects</u> by Anna Carr and <u>Identifying Diseases of Vegetables</u> by A.A. MacNab, A.F. Sherf and J.K. Springer. For the most part, I suggest gardening organically, for the sake of both historical accuracy and human safety.

A section on <u>Harvest and Storage</u> of each vegetable follows, again with heavy reliance on the accounts of informants when available and advice given in nineteenth century seed catalogs and texts.

Recommended varieties follow, chosen on the basis of the descriptions of the vegetables given by informants and/or their availability in the local market. When such information was not found, the recommendations of gardening manuals and seed catalogs, as well as frequent listings of particular varieties in seed catalogs of the period, influenced my decision as to which varieties to recommend.

All recommended varieties have sources current as of 1984 with a few exceptions. In these cases, I felt that the variety was popular enough to warrant listing and continuing the search for a current source. In such cases I have designated substitute varieties to use while the search continues. All recommended varieties are accompanied by a detailed description. At the end of the season I recommend that the horticulturists at the Hagley Museum use these descriptions and the figures in Appendix A and compare them to the matured fruits to insure that varieties being grown are true to type. Many times a variety retains its original name through many changes and improvements, with the result

that the vegetable grown today bears little resemblance to that grown under the same name in the nineteenth century.

Whenever possible, I chose varieties that were introduced to the American market before the period 1870 to 1885. In some exceptional cases I chose varieties that were considered to be improvements over what was available at the time that they became popular very quickly according to nineteenth century seedsmen and horticulturists. I have documented such cases by quoting or paraphrasing nineteenth century seedsmen and horticulturists regarding the popularity of the variety. All recommended varieties have entries of the seed catalogs that they were carried in listing the author's last name and date of publication under the heading <u>Documentation</u>. The frequency of listing also serves as a measure of their popularity at the time.

In many cases I have given several recommendations for varieties. It is not my intention that all recommended varieties be included in the garden during a single season. In several instances the informants gave varying accounts of a particular vegetable, or the seed catalogs carried an extensive offering of popularly used varieties. I am recommending several varieties to allow the staff at Hagley the freedom of choice as to what to include in the garden, based

on the evidence that I have provided, as well as any additional information that they are privy to.

Under Commercial Sources and Private Sources can be found sources for each variety recommended. The two major references used are both published by the Seed Saver's Exchange, Route 3, Box 239, Decorah, IA 52101, and are listed in the Reference Section of this document. The Garden Seed Inventory lists commercial sources of vegetable seeds available from companies that were inventoried during the years 1982 through 1984. Addresses for each seed company can be found in Appendix B. A more current annual publication entitled the Vegetable Variety Inventory is again a product of the Seed Saver's Exchange. It is available upon request should the staff require a more updated listing of sources. It lists seed varieties carried by three companies or less. Private sources were gleaned from the Seed Saver's Exchange 1987 Winter Yearbook. The names and addresses of persons offering seed are listed in the text for convenience. Occasionally included under both Commercial and Private Sources are additional sources that were uncovered during my research.

Finally I recommend the use of <u>The Heirloom Gardener</u> by Carolyn Jabs as an update on the heirloom vegetable variety movement in America. It is written for the layperson and

contains an extensive chapter on seed saving techniques and a chart detailing the viability in years of many types of vegetable seeds. It also gives listings of museums, seed companies and public and private organizations that are currently preserving heirloom varieties of vegetables.

Footnotes

¹Jackie Hinsley, "John Gibbons, Hagley Yard Foreman", Unpublished Report, Eleutherian Mills Hagley Foundation, Greenville, DE, Revised 1983.

²Hinsley, "John Gibbons", Revised 1983.

³Interview with Philip Dougherty, Eleutherian Mills Hagley Foundation Oral History File, 12 January 1955, 6 February 1955.

⁴Interview with Eugene Bruno, Eleutherian Mills Hagley Foundation Oral History File, 12 March 1981.

⁵W.W. Rawson, <u>Success In Market Gardening</u>, Arlington, MA: W.W. Rawson, 1887, p. 208.

⁶Rawson, Success, p. 204.

⁷Photographs H50-17, 70.1.213, 70.1.331, Eleutherian Mills Hagley Foundation Pictorial Collections, Greenville, DE.

Chapter 2

RECOMMENDED VEGETABLES

ASPARAGUS Asparagus officinalis

Biddle 3/23/1984; Cammock 7/24/1984; Cheyney 12/19/1983, 1/23/1984; Meriggi 7/24/1984; Seitz 5/13/1984; Smith 2/15/1984; Yetter 7/25/1984; Photograph H50-17.

Asparagus is a hardy, salt tolerant vegetable which naturalizes freely. As it is a perennial and occupies space in the garden year-round, it is usually grown in larger gardens, most commonly in the border, so as not to intrude on the more intensive culture required by annual plants. Evidence of its growth in the vicinity of the Hagley yards during the late nineteenth century includes a photograph of the family of Jacques Seitz standing in a potato patch adjacent to their Free Park home.¹ (See Figure 1) Members of the family are standing between a picket fence and what appears to be a single row of asparagus bordering quite an extensive potato planting. Anne Smith, the granddaughter of Jacques Seitz mentions that her grandfather had a large garden.² Neither she nor her cousin, both of whom visited

frequently, recalled him growing asparagus in his vegetable garden, although the photograph confirms its presence.³ 4

Four informants said that their families did not include asparagus in their vegetable gardens.⁵ 6 7 8 Catherine Cheyney surmised that it was the lack of space that kept her family from growing the crop. She said that they had an asparagus plant volunteer in their flower bed. It was not weeded out because of its "pretty appearance". She said it was a "hardy" plant that thrived in the "rocky" soil of the area.⁹ Walter Biddle remembered seeing asparagus fronds growing along the railroad tracks and recalled that they were used for "decorations".¹⁰

Evidence suggests that the plant was known and grown nearby, but not by the common working man to any extent. It was looked upon as an unusual vegetable or one that the "rich people had".¹¹

Culture

I recommend that asparagus seed be collected from the recommended variety and a few plants be naturalized in a flower border near the house. This would replicate the effect of seed dispersal by birds. The plants should be used strictly for the ornamental quality of their delicate, fern-like foliage and be given little or no cultural attention.

Harvest & Storage

The harvest and storage of asparagus is not applicable as it will be used only as an ornamental.

Pests & Diseases

Asparagus beetle, rust, and crown and root rot can affect asparagus.¹² These problems should not be controlled other than by cutting the dried fronds in the fall and burning them to destroy the insect and disease propagules. According to informants asparagus was not commonly grown for the table by the powdermen, and would therefore not warrant the time and expense of chemical control measures.

Recommended Variety

Conover's Colossal' (See Figures 6,7)

"A large variety of rapid growth".¹³ `Conover's Colossal' was a popular variety in late nineteenth century seed catalogs. It was recommended in the Landreth's Rural Register and Almanac of 1883 as the variety to plant.¹⁴ Burpee's Farm Annual of 1883 referred to `Conover's Colossal' as "The standard variety.".¹⁵ The Landreth Seed Company was based in Philadelphia, advertised in the April 2, 1850 Delaware Gazette, and sent seed via the United States Postal Service.¹⁶ Therefore there is a good chance that this variety was grown by the powdermen in their home gardens.

The Seed Saver's Exchange Winter Yearbook 1987 notes that it is perennial, an early cropper and has thick stalks.¹⁷ Seed obtained from a fruiting plant of this variety would be most appropriate.

Documentation

 Dreer 1872
 Vick 1872,1875,1877,1880

 Landreth 1874,1876,1883,1884
 Wilson 1879

Commercial Sources

The Garden Seed Inventory lists:

Redwood City Seed Company Bountiful Gardens

Private Sources

The Seed Saver's Exchange 1987 Winter Yearbook lists:

and the state

Mr. John Wyncoll, 21 Harvard Street, Darwen, Lancashire, England BB3 1PE

FOOTNOTES

¹Photograph H50-17, Eleutherian Mills Hagley Foundation Pictorial Collections, Greenville, DE.

²Questionnaire from Anne Smith, Eleutherian Mills Hagley Foundation Oral History File, Greenville, DE, 15 February 1984.

³Interview with Dr. Margaret Seitz, Eleutherian Mills Hagley Foundation Oral History File, Greenville, DE, 13 May 1984.

⁴Questionnaire, Anne Smith, 15 February 1984.

⁵Interview with James Cammock, Eleutherian Mills Hagley Foundation Oral History File, Greenville, DE, 24 July 1984.

⁶Interviews with Catherine Cheyney, Eleutherian Mills Hagley Foundation Oral History File, Greenville, DE, 19 December 1983, 23 January 1984.

⁷Interview with C. Natalie Ruggero Meriggi, Eleutherian Mills Hagley Foundation Oral History File, Greenville, DE, 24 July 1984.

⁸Interview with Blanche MacAdoo Yetter, Eleutherian Mills Hagley Foundation Oral History File, Greenville, DE, 25 July 1984.

⁹Cheyney, Interview, 23 January 1984.

¹⁰Biddle, Interview, 23 March 1983.

¹¹Yetter, Interview, 25 July 1984.

¹²Frank E. Boys and Robert P. Mulrooney, <u>Guidelines for</u> <u>Insect and Disease Control in Home Vegetable Gardens</u>, University of Delaware, Newark, DE: Delaware Cooperative Extension Service, p. 3, No date.

¹³Vick's Floral Guide, Rochester, NY: Charles F. Muntz and Company, 1880, p. 73.

¹⁴Landreth's Rural Register and Almanac, Philadelphia, 1883, p. 20.

¹⁵Burpee's Farm Annual, Philadelphia, 1883, p. 5.

¹⁶Delaware Gazette, Wilmington, DE, 2 April 1850.

¹⁷Kent Whealy, Ed., <u>The Seed Saver's Exchange 1987</u> <u>Winter Yearbook</u>, Decorah, IA: Seed Saver Publications, 1987, p. 51.

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BEANS <u>Phaseolus vulgaris</u> (Kidney or Common Bean) <u>Phaseolus lunatus</u> (Lima and Seiva Beans)

Bruno 3/12/1981; Cammock 7/24/1984; Cheyney 1/29/1981, 1/23/1984, 2/15/1984, 3/26/1984; Hudson 8/1/1968; Kauss 2/17/1981; Lattomus and Walls 6/12 & 25/1969; Leto 5/25-/1983; Meriggi 6/10/1984, 7/24/1984; Seitz 5/13/1984; Smith 2/15/1984; Yetter 7\25\1984; Photographs 70.1.331, H1-9

A tender, twining annual vine, beans, both lima and shell¹ 2 3 4 ⁵ and string or green snap^6 7 8 9 10 12 formed an important part of the powderman's diet year-round.

Lima beans and snap beans were eaten fresh in season. Any extra were left to mature and dried for winter use as shelled beans.¹³ ¹⁴ ¹⁵ One informant recalled her mother using a ceramic bean pot for the slow cooking of dried shelled beans during the winter. The beans were reconstituted by soaking in water before they were cooked.¹⁶

Some informants recalled that the bush type or dwarf green snap beans were grown in the gardens.¹⁷ ¹⁸ ¹⁹ Others recalled both bush and pole type green beans in their family's garden.²⁰ ²¹ Another informant did not bother much with beans in the garden that he tended as a child. He grew

only the bush type or dwarf green snap beans and did not grow pole beans at all.²²

Culture

"Beans like a dry and light soil though they will do well in any garden soil if not set out too early in the spring. Dwarfs are the earliest and most hardy."²³

Shell, string and lima beans were grown on poles laid out in rows in the garden.²⁴ Photographs in the Hagley archives show beans growing on very tall stakes set in a straight line in the yard of a worker's dwelling.²⁵ ²⁶ (See Figures 3,4) The poles used for supporting plants in the garden were the limbs of trees or saplings cut from the nearby woods. These limbs were stripped of their branches. When placed in the garden, they protruded from the ground about six or seven feet, or at a height about equal to or a little greater than that of a man.²⁷ ²⁸

The pole beans were a mess... A whole row of poles that you had to put in the ground. Each plant, each vine, went up a pole. Then of course they were close enough that they would connect. The vines would come over to the other one. And sometimes you put string in between them so that it was easier to pick the beans. You never got too high a pole because the kids couldn't reach.. Oh, I don't know how high the bean pole. The bean pole would be tall. It would be five, I guess, feet easily.²⁹ This recollection of Miss Cheyney indicates that the children in her family were responsible for at least some portion of the job of picking the beans.³⁰

Buist notes that "It is beneficial to plant limas and pole beans in hills as this practice improves drainage and warms the soils for these plants intolerant of cool damp conditions."³¹ One informant recalled that two or three lima beans were planted in a hill formed at the base of each pole as one plant per pole was desired and not all of the seed was expected to germinate.³² A second informant also The poles were remembered only one bean vine per pole. placed close enough together that the vines would intertwine with one another. Sometimes they would put string in between so that it was easier to pick the beans.³³ According to one source most people didn't bother tying strings between the poles for the beans to ramble unless their garden was near the house and the gardener was a "fusty" person and took the time to complete this needless task.³⁴ Burr gives the following advice on planting pole lima beans:

The Lima is one of the latest, as well as one of the most tender, of all garden-beans, and seldom, if ever, entirely perfects its crop in the Northern States. Little will be gained by very early planting, as the seeds are not only liable to decay before vegetating, but the plants suffer greatly from cold, damp weather. In the Northern and Eastern States, the seeds should not be planted in the open ground before the beginning of May; nor should the planting be delayed beyond the tenth or middle of the month. In ordinary

seasons, the Lima Bean will blossom in eight or nine weeks, and pods may be plucked for use the last of August, or beginning of September. Only a small proportion of the pods attain a sufficient size for use; a large part of the crop being prematurely destroyed by frost...

As soon in spring as the weather is settled, and the soil is warm and in good working condition, set poles about six feet in length, three feet apart each way, and plant five or six beans in each hill, -- being careful to set each bean with its germ downwards, and covering an inch deep. After they have grown awhile, and before they begin to run, pull up the weakest, and leave but the three of the most vigorous plants to a hill. As these increase in height, they should, if necessary, be tied to the stakes, or poles, using bass-matting, or other soft, fibrous material, for the purpose. When they have ascended to the tops of the poles, the ends should be cut or pinched off, as also the ends of all the branches, whenever they rise above that height. This practice checks their liability to run to vines, and tends to make them blossom earlier, and bear sooner and more abundantly than they otherwise would do.35

Locate the poles along the north side of the garden to avoid shading other vegetables. Secure them by burying the ends in the ground to a depth of twelve inches.³⁶ This suggests that the poles used were at least seven or eight feet long. They should be placed in the row at three foot intervals before the seeds are planted.³⁷ I surmise that more than one vine was grown per pole but in the memories of the informants, they were seen as a single plant. Seedsman James Vick advised his customers to plant bush or dwarf beans according to the following directions:

The Dwarf varieties grow from twelve to eighteen inches in height, need no support, and are planted either in drills or hills. The drills should be not less than a foot apart, two inches deep, and the seed set in the drills from two to three inches apart... Rows are best for a garden.³⁸

Do not cultivate too deeply around these shallow rooted plants or work in them if the foliage is wet. The latter practice spreads water-borne diseases. Keep the plants watered during drought and their yield will extend to frost.³⁹

Harvest & Storage

Harvest green beans for fresh use when the pods fill out but while they are still tender. Hold the vine while separating the pod from the vine so as not to destroy these brittle plants. Pick limas as the pods fill out or leave on the vine until after the first light frost if dry shell beans are desired for winter use. Dry in a cool, airy place for winter storage.⁴⁰

Some powderworkers' families dried beans for winter storage outdoors in the sun or on trays in a sunny room with good air circulation.⁴¹ ⁴² One informant pointed out that her family's garden was small and all beans grown were eaten fresh. A supply of dried soup beans was purchased for winter use.⁴³ Another family stored their supply of dried beans in half bushel baskets.⁴⁴ Green snap beans were also canned.⁴⁵ 46 47 48

One informant recalled her father saving seed from lima beans to use for the following year's crop and surmised that it was either too hard to find or expensive to buy.⁴⁹

Pests & Diseases

Mexican Bean Beetle, Seed Rot, Downy Mildew, Bacterial Blights, Leafhoppers, Spider Mites, Corn Earworm, Anthracnose, Rust, and Mosaic Viruses are all potential hazards to the bean crop.⁵⁰ Present day gardener at the the E.I. duPont garden, Peter Lindtner, reported that four-legged pests fed on the bean vines.⁵¹ Fencing should alleviate this problem to some extent.

One informant recalled beetles that fed on bean vines.⁵² This beetle was probably the Mexican bean beetle which is today a common pest of beans.

No control measures were mentioned for these problems by the informants. For insect control handpick the adult, larvae and the egg masses on the undersides of the leaves. Destroy all infected bean vines as severe problems arise. Similarly destroy all garden debris at the end of the season. Avoid walking through the beans when the plants are wet as several of the diseases to which beans are prone are spread by water.

Rot is common problem of pole beans especially when the seed is planted too early in the season and the conditions are cold and wet. Planting in hills alleviates this problem somewhat, but Quinn warns that limas frequently have to be replanted, sometimes several times.⁵³

Recommended Variety -- Bush or Dwarf Snap Bean

Refugee (syn. Brown Speckled, Dwarf Refugee, Improved Refugee, Late Valentine, Late Prolific, Late Prolific Refugee, Round Pod Refugee, Thousand to One) (See Figure 10)

"A very old variety grown in the U.S. at least since 1822. Believed to have been brought to America by French Huguenots. Used as a snap bean.⁵⁴ Quinn describes Refugee as a leading variety of dwarf bean.⁵⁵

Plants sixteen to eighteen inches high, and readily distinguished from most varieties by its small, smooth deep green, and elongated leaves; flowers purple; pods five inches long, nearly cylindrical, pale green while young, greenish; white streaked with purple when sufficiently advanced for shelling, yellow when ripe, and usually yielding five beans.

The Refugee is not an early sort. The plants blossomed in seven weeks, produced pods in eight weeks, and ripened in eighty seven days, from the time of sowing. Plantings for the ripened product may be made till the middle of June, and for the green pods, to the middle of July.

The ripened seeds are light drab, with numerous spots and broad patches of bright purple, nearly straight, cylindrical at the middle, tapering to the ends (which are generally rounded), five-eighths of an inch long, and three tenths of an inch thick...

The variety is hardy, yields abundantly, and the young pods are thick, fleshy and tender in texture. As a string bean, or for pickling, it is considered one of the best of all varieties, and is recommended for general cultivation. The seeds are comparatively small, and are rarely used either in a green or ripened state."⁵⁶

Documentation

Buist 1853 Landreth 1874,1884 Vick 1874,1880 Dreer 1872 Parker & White 1852

Commercial Sources

The Garden Seed Inventory lists:

No Sources

Private Sources

The Seed Saver's Exchange 1987 Winter Yearbook lists:

Zea Sonnabend, P.O. Box 1326, Davis CA 95617 Dierk Neugbauer, Rt. 1, Box 17, Markham, Ontario, Canada L3P 3J2 Alex Caron, Rt. 3, King City, Ontario, Canada LOG 1K0 Jim Tjepkema, Box 23, Clarks Grove, MN 56016 Janet Thorn & Jim Gruber, Box 236, Lyndon, VT 05849

Recommended Variety -- Bush Snap Bean, Green or Dry Shell

White Bush Marrowfat (syn. White Marrow, Dwarf White Cranberry, White Egg, Great Western, Mountain, White Cranberry) (See Figure 11)

"Clean, white, almost round, fair as a string bean, and first class for use shelled, either green or dry."⁵⁷

Plants vigorous, much branched, and inclined to produce running shoots; flowers white; pods five inches long, nearly three fourths of an inch broad, pale green at first, then changing to clear yellow, afterwards becoming pure waxen-white, cream-yellow when ripe, and containing five seeds.

Planted at the commencement of favorable weather, the variety blossomed in seven weeks, yielded pods for the table in eight weeks, and ripened in a hundred and five days. When grown for the ripened product, the planting should not be delayed beyond the 20th of June. Planted at this season, or the last week in June, the crop will blossom the first week in August, and about the middle of the month, pods may be gathered for the table. By the second week in September, the pods will be of sufficient size for shelling; and, if the season be ordinarily favorable, the crop will ripen the last of the month. It must, however, be regarded as an early variety, and when practicable, be planted before the 10th of June.

The ripe seeds are clear white, ovoid or eggshaped, nine sixteenths of an inch long, and three eighths of an inch thick. In size, form, or color, they are scarcely distinguishable from those of the White Running Cranberry...

As a string bean, the White Marrow is of average quality; but for shelling in the green state it is surpassed by few, if any of the dwarf varieties, as the large seeds not only separate readily from the pod, but are remarkably white and well flavored. As a garden-bean, it deserves more general cultivation. When ripe it is farinaceous, of a delicate fleshy-white when properly cooked, and by many preferred to the Pea-Bean. ...and others plant in drills eighteen inches apart, dropping seeds singly, six or eight inches from each other in the drills.⁵⁸

Documentation

Dreer 1872

Vick 1872,1875,1880

Commercial Sources

The Garden Seed Inventory lists:

P.L. Rohrer & Bro. Botzum Seed Co. Mellinger's Inc. Stokes Seeds Ltd Landreths

Private Sources

The Seed Saver's Exchange 1987 Winter Yearbook lists: Andrew H. Baker, Old Sturbridge Village, Sturbridge, MA 01566 Ralph Stevenson, 2465 E. Jackson Dr., Tekonsha MI 49092 Mary E. Klug, Old World Wisconsin Historic Museum, S103 W37890 Hwy. 67, Eagle, WI 53119

Recommended Variety -- Pole Snap Bean, Green or Dry Shell Bean

White Dutch Caseknife (syn. Early White Dutch Caseknife, White Caseknife, Caseknife Runner, Caseknife, Dutch Caseknife) (See Figure 12)

Quinn lists this variety as one of the best garden varieties of pole beans. 59

One of the oldest varieties in America. Noted in the literature since 1820. In the <u>Country Gentleman</u> of 1856, it was listed as a leading pole bean variety. Used for green shell or dried beans. 60

Dutch-Case Knife is an excellent pole bean, producing a good crop, of fine flavor, and much earlier for the table than either the Lima or the Carolina. It can be used either with or without the pod; it is also well adapted for winter use.⁶¹

Burr describes it as follows:

This variety, common to almost every garden, is readily distinguished by its strong and tall habit of growth, and its broad, deep green, blistered leaves. The flowers are white; the pods are remarkably large, and often measures nine or ten inches in length, and nearly an inch in width; they are of a green color till near maturity, when they change to a yellowish-green, and, when fully
ripe to cream-white. A well eight or nine seeds.

A well-formed pod contains

Early plantings blossomed in seven or eight weeks, yielded pods for stringing in about ten weeks, green beans in twelve or thirteen weeks, and ripened in a hundred and five days. Later plantings, with the exclusive advantage of summer weather, yielded green pods in seven weeks, pods for shelling in eight or nine weeks, and ripened in ninety-six days. Plantings for the green beans may be made till nearly the middle of July, and for the young pods to the 25th of the month. The ripe seeds are clear white, kidney-shaped, irregularly flattened or compressed, often diagonally shortened at one or both of the ends, three fourths of an inch long, and three eighths of an inch deep... It is one of the most prolific of the running varieties. As a shelled bean, it is of excellent quality in its green state, and when ripe, farinaceous, and well flavored in whatever form prepared. The large pods, if plucked early, are succulent and tender, but coarser in texture than those of many other sorts, and not so well flavored. 62

A French seedsman describes it in this manner:

A very vigorous growing kind, nearly 10 ft. in height. Stem thick and green; leaves very large, deep green, crimped; flowers large, white, fading to nankeen yellow, and forming long clusters; pods straight, sometimes undulating on the sides, 10 inches to 1 ft. long, containing eight or nine seeds each, numerous, produced in succession for a long time, especially when the first have been gathered green; seeds white, glistening kidneyshaped, very like those of the Large White Runner, but more regular in shape and one-third less in size, seldom 3/5 inch in length... They ripen rather late. The young pods may be used as green Haricots. The seed or bean, when used fresh from the pod, is one of the best; it is also very good This is certainly one of the best when dried. varieties; the only objection to it is that it requires very long stakes when growing.63

Documentation

Burpee 1883 Landreth 1874 Dreer 1872 Parker & White 1852

Commercial Sources

The Garden Seed Inventory lists:

Johnny's Selected Seeds

Private Sources

The Seed Saver's Exchange 1987 Winter Yearbook lists: Dennis P. Schweitzer, 23 Hudson St., Berlin, CT 06037 T. E. Walsh, 2700 Tucker Station Road, Jeffersontown, KY 40299 Billie H. Wilson, 5738 N. Silvery Lane, Dearborn Heights, MI 48127 Virginia Baker, Rt. 1, Box 109, Wykoff, MN 55990 Bruce Stuart, 1520 Puddintown Rd., State College, PA 16801 Vernon K. Deal, Rt. 3, Box 248, Bruceton Mills, West Virginia 26525

Recommended Variety -- Pole Lima, Green or Dry Shelled Bean

Sieva Pole Lima (syn. Carolina Lima, Small Lima, Sieva, Sewee, Saba)

"The best quality is the Lima, but it is late; the Sieva, or Carolina, is much like it, and earlier."⁶⁴ "Seed about half the size, but earlier and hardier than the Large Lima."⁶⁵

One informant recalled her family growing a white bean that you shell like a lima which could have been a Sieva Pole Lima.⁶⁶ The Sieva has a smaller pod and beans than a regular lima. The Common Lima is a plant that takes a long growing season to mature but yet does not tolerate cool conditions, and if planted too early will rot. As a result it is an unreliable bearer depending upon the conditions of the season. The powderworkers might very likely have grown the Sieva which would not have quite the yield of the Common Lima, but would have been a more reliable cropper, as it matures earlier.

Burr describes it as follows:

The Sieva is a variety of the Lima, and attains a height of ten or twelve feet. The leaves and flowers resemble those of the Common Lima. The pods, however, are much smaller, and remarkable for their uniform size, generally measuring three inches in length, and about seven eighths of an inch in width; they are green and wrinkled while young, pale yellowish-brown when ripe, and contain three, and sometimes four, seeds.

Though several days earlier than the Lima, the Sieva Bean requires the whole season for its complete maturity; and even when planted early, and receiving the advantage of a warm suumer and a favorable autumn, it is seldom fully perfected in the Northern States; for, though much of the crop may ripen, a large portion, almost invariably, is prematurely destroyed by frost.

....The seeds are white or dull yellowish-white, broad-kidney shaped, much flattened, five eighths of an inch long, and nearly half an inch broad.

....The Sieva is one of the most productive of all varieties. The young pods however, are tough and hard, and are never eaten. The beans, in their green or ripe state, are similar to the Lima, and are nearly as delicate and richly flavored. It is from two to three weeks earlier than the last named, and would yield a certain abundance in seasons when the Lima would uniformly fail. As a shelled-bean, green or dry, it must be classified as one of the best, and is recommended for cultivation. 67

Documentation

Dreer 1872

Landreth 1874

Commercial Sources

The Garden Seed Inventory lists:

Ernest Hardison Seed Co.	Kilgore Seed Co.
Landreth Seed Co.	Bunch's
Liberty Seed Co.	Dothan Seed & Supply Co.
Meyer Seed Co.	Eckroat Seed Co.
Roswell Seed Co.	Everett Seed Co.
Royal Seeds, Inc.	Segrest Seed Co.
R.H. Shumway, Seedsman	Southern States Coop.
Geo. Tait & Sons, Inc.	J.P. Snapp & Sons
Willhite Seed Co.	Wetsel Seed Co., Inc.
Henry Field Seed & Nursery	Chas. C. Hart Seed Co.
Ferry-Morse Seed Co.	Southern Garden Co.

Private Sources

The Seed Saver's Exchange 1987 Winter Yearbook lists:

No Sources

<u>Recommended Variety</u> -- Pole Bean, Green Shell or Dry Lima

Large, White Lima (See Figures 8,9)

"Deservedly esteemed the best of all pole beans."⁶⁸ The Large, White Lima "...is the variety that is the most prized."⁶⁸ "The most buttery, delicious bean grown."⁷⁰ Quinn lists the Large, White Lima as one of the best garden

varieties of pole beans in 1871.⁷¹

Stem ten feet or more in height; leaves comparatively long and narrow, smooth and shining; flowers small, greenish-yellow, in spikes; the pods are four inches and a half long, an inch and a quarter broad, much flattened, green and wrinkled while young, yellowish when ripe, and contain three or four beans...

The ripe seeds are dull white or greenishwhite, with veins radiating from the eye; broadkidney-shaped, much flattened, seven eighths of an inch long, and two thirds of an inch in width...

The pods are tough and parchment-like in all stages of their growth, and are never eaten. The seeds, green or ripe, are universally esteemed for their peculiar flavor and excellence, and by most persons are considered the finest of all the garden varieties. If gathered when suitable for use in their green state, and dried in the pods in a cool and shaded situation, they may be preserved during the winter. When required for use, they are shelled, soaked a short time in clear water, and cooked as green beans; thus treated, they will be nearly as tender and well flavored as when freshly plucked from the plants.⁷²

Documentation

Burpee 1883 Landreth 1874 Vick 1872 Dreer 1872 Parker & White 1852

Commercial Sources

The Garden Seed Inventory lists:

No Sources

Private Sources

The Seed Saver's Exchange 1987 Winter Yearbook lists: No Sources It is worthwhile to continue the search for a source for this obviously popular variety.

FOOTNOTES

¹Biddle, Interview, 23 March 1983.

²Interview with Catherine Cheyney, Eleutherian Mills Hagley Foundation Oral History File, Greenville, DE, 15 February 1984.

³Interview with Jenny Leto, Eleutherian Mills Hagley Foundation Oral History File, Greenville, DE, 25 May 1983.

⁴Meriggi, Interview, 24 July 1984.

⁵Smith, Questionnaire, 15 February 1984.

⁶Cammock, Interview, 24 July 1984.

⁷Cheyney, Interview, 23 January 1984.

⁸Interview with Joseph Hudson, Eleutherian Mills Hagley Foundation Oral History File, Greenville, DE, 1 August 1968.

⁹Interview with Joseph and Mary Todd Kauss, Eleutherian Mills Hagley Foundation Oral History File, Greenville, DE, 17 February 1981.

¹⁰Interview with Faith Betty Lattomus and Madaline Betty Walls, Eleutherian Mills Hagley Foundation Oral History File, Greenville, DE, 12,25 June 1969.

¹¹Meriggi, Interviews, 10 June 1984, 24 July 1984.

¹²Seitz, Interview, 13 May 1984.

¹³Cheyney, Interview, 15 February 1984.

¹⁴Leto, Interview, 25 May 1983.

¹⁵Meriggi, Interview, 24 July 1984.

¹⁶Interview with Catherine Cheyney, Eleutherian Mills Hagley Foundation Oral History File, Greenville, DE, 29 January 1981.

¹⁷Cammock, Interview, 24 July 1984.

¹⁸Seitz, Interview, 13 May 1984.

¹⁹Smith, Questionnaire, 15 February 1984.

²⁰Cheyney, Interview, 23 January 1984.

²¹Meriggi, Interview, 24 July 1984.

²²Cammock, Interview, 24 July 1984.

²³Vick's 1880, p. 73.

²⁴Cheyney, Interview, 23 January 1984.

²⁵Photograph 70.1.331, Eleutherian Mills Hagley Foundation Pictorial Collections, Greenville, DE.

²⁶Photograph H1-9, Eleutherian Mills Hagley Foundation Pictorial Collections, Greenville, DE.

²⁷Meriggi, Interview, 24 July 1984.

²⁸Yetter, Interview, 25 July 1984.

²⁹Cheyney, Interview, 23 January 1984.

³⁰Cheyney, Interview, 23 January 1984.

³¹Robert Buist, <u>The Family Kitchen Gardener</u>, New York: C.M. Saxton, 1853, p. 27.

³²Yetter, Interview, 25 July 1984.

³³Cheyney, Interview, 23 January 1984.

³⁴Yetter, Interview, 25 July 1984.

³⁵Fearing Burr, Jr., <u>The Field and Garden Vegetables of</u> <u>America</u>, Boston: J.E. Tilton and Company, 1865, p. 483-84.

³⁶P.T. Quinn, <u>Money In The Garden</u>, New York: The Tribune Association, 1871, p. 56.

³⁷Burr, Vegetables of America, p. 484.

³⁸Vick's Floral Guide, Rochester, NY: Charles F. Muntz and Company, 1875, p. 82.

³⁹Roger Griffith, <u>Vegetable Garden Handbook</u>, Charlotte, NC: Garden Way Publishing, 1974, p. 18.

⁴⁰Griffith, <u>Vegetable Garden Handbook</u>, p. 18.

⁴¹Cheyney, Interview, 15 February 1984.

⁴²Leto, Interview, 25 May 1983.

⁴³Yetter, Interview, 25 July 1984.

⁴⁴Cheyney, Interview, 29 January 1981.

⁴⁵Cheyney, Interview, 29 January 1981.

⁴⁶Kauss, Interview, 17 February 1981.

⁴⁷Lattomus and Walls, Interview, 12,25 June 1969.

⁴⁸Meriggi, Interview, 24 July 1984.

⁴⁹Cheyney, Interview, 15 February 1984.

⁵OBoys, <u>Guidelines</u>, p. 4.

⁵¹Interview with Peter Lindtner, Eleutherian Mills Hagley Foundation Oral History File, Greenville, DE, 11 April 1984.

⁵²Seitz, Interview, 13 May 1984.

⁵³Quinn, Money, p. 56.

⁵⁴Robert F. Becker, "Beans", Geneva, NY: New York State Experiment Station, April 1979.

⁵⁵Quinn, Money, p. 263.

⁵⁶Burr, <u>Vegetables of America</u>, p. 456-57.

⁵⁷Vick's, 1880, p. 74.

⁵⁸Burr, <u>Vegetables of America</u>, p. 464-65.

⁵⁹Quinn, <u>Money</u>, p. 55.

⁶⁰Becker, "Beans", New York State Experimental Station, April 1979.

⁶¹Buist, Kitchen Gardener, p. 27.

⁶²Burr, <u>Vegetables of America</u>, p. 468.

⁶³MM. Vilmorin-Andrieux, <u>The Vegetable Garden</u>, London: John Murray, 1885, p. 41. ⁶⁴Parker and White's Descriptive Catalog of Agricultural Machines, Implements, Seeds, Trees and Farm Stock, Boston: 1852, p. 88. ⁶⁵Burpee's, 1883, p. 7. ⁶⁶Meriggi, Interview, 24 July 1984.

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⁶⁷Burr, <u>Vegetables of America</u>, p. 488-89.

⁶⁸Burpee's, 1883, p. 7.

⁶⁹Buist, <u>Kitchen Gardener</u>, p. 183.

⁷⁰Vick's, 1880, p. 74.

⁷¹Quinn, <u>Money</u>, p. 55.

⁷²Burr, <u>Vegetables of America</u>, p. 483.

instructed the gardener to sow the seed in drills a half an inch deep, at three inch intervals, in drills eighteen inches apart. When the plants reach two inches high, thin to six inches apart.¹⁵

Burr stated that beets for use in autumn should be planted about mid-May and those desired for winter storage planted from the beginning to the middle of June. He advised sowing the seed thickly to obtain seedlings every two or three inches. After they emerged, which in wet weather would have been in about a week, he instructed gardeners to thin out the weakest.¹⁶ Beet seeds are slow to germinate, and are sold as multiple seeded fruits.

The seeds are in little groups or clusters of calyxes...so that each rounded cluster what we call a seed, really contains from two to four true seeds. The consequence is that the plants come up thicker than necessary and must be thinned out.¹⁷

"The after-culture consists simply in keeping the plants free from weeds, and the earth in the spaces between the rows loose and open by frequent hoeings."¹⁸

One informant recalled that beets were grown in rows in her family's garden, but she did not specify the spacing between the rows.¹⁹

Harvest & Storage

Peter Henderson gave gardeners the following advice on the harvest of beets:

When the roots are three inches in diameter, they are fit for use. Of course they are used when much larger, but the younger they are, the more delicate and tender.²⁰

Burr gave the following advice on the harvest of beets:

Roots from the first sowings, will be ready for use early in July; from which time, until October, the table may be supplied directly from the garden. They should be drawn as fast as they attain a size fit for use; ;which will allow more time and space for the development of those remaining.

For winter use, the roots must be taken up before the occurrence of heavy frost, as severe cold not only greatly impairs their quality, but causes them to decay at the crown.

In harvesting avoid cutting or bruising the skin; and in removing the leaves, be careful not to cut or wound the crown. After being spread in the sun a few hours to dry, they should be packed in earth or sand, slightly moist, and stored out of the reach of frost for the winter.²¹

Buist recommended cutting the leaves from the top of the roots at a distance of two inches from the crown.²² James Vick advised the storage of beets in pits in the ground during the winter.²³ Many children of the powderworkers recalled the use of such a pit dug in the soft earth of the garden for keeping vegetables out of the reach of frost and in an edible condition over the winter.

We had all the vegetables we have now from the garden when we lived down there (Free Park). We had just about everything-- tomatoes, beets, turnips and we would also keep alot of the

vegetables for the winter. We would put the beets down in the ground and we had beautiful celery beds. We would dig a hole and keep the vegetables in there.²⁴

One informant in particular remembered her family storing beets along with celery, cabbage and carrots in pits in the garden close to the gate. The pits were two and a half to three feet deep and wide enough to accommodate all of the vegetables that they had to store. The deeper the pit, the warmer the temperature it maintained. After the pit was filled with vegetables it was covered with straw and tar paper to keep the rain out. An opening was left so that they could reach in to retrieve the vegetables.²⁵ Buist recommended that such pits be three feet in depth and the vegetables covered with two inches of straw and twelve inches of soil to protect the stored vegetables from frost.²⁶ By using this storage method the families could enjoy many vegetables in fresh condition all winter long. Catherine Cheyney's family placed a stake over the pit, to mark its location even under cover of snow.²⁷

Pest & Diseases

Flea Beetles, Leafhoppers, Garden Webworm, Damping Off, Cercospora Leaf Spot all affect beets.²⁸ However this crop is seldom bothered by troublesome insects or diseases severe enough to cause major destruction. The main concern is in making the seed bed well-drained, loose and rock free. The

BEET Beta vulgaris

Beacom 5/29/1967; Bruno 3/12/1981; Cammock 7/24/1984; Cheyney 4/3/1964, 1/23/1984, 3/26/1984; Hudson 8/1/1968; Meriggi 6/10/1984, 7/24/1984; Yetter 4/3/1984, 7/25/1984

Referred to as 'blood beets' by some,¹ and 'red beets' by others,² the beet was another root crop grown by the powderworkers.³ 4 5 6 7 One informant did not remember beets as a vegetable grown by his family.⁸ Another remarked that it was not a popular vegetable, but some people grew them.⁹ One family fed the green tops to the chickens.¹⁰

An easy to grow, half-hardy biennial, the beet is a light feeder which grows well except during the intense heat of midsummer.¹¹

Culture

The Beet is a cold tolerant vegetable that can be sown as soon as the ground can be worked in the spring.¹²

Sow from the first of April to the middle of June in deep, rich, sandy loam. Thin the young plants to the distance of six or eight inches, and fill up the vacant places with those taken out.¹³

Dreer's Garden Calendar of 1872 agreed with this advice.¹⁴ Buist went into a little more detail and

beet is a heavy feeder and will produce tough, forked, fibrous roots in infertile, rocky soils. The use of fresh manure for beets and other root crops is also a cause of forked roots.²⁹

Leaf miner sometimes affects beets in this area. The larvae of this insect tunnels between the upper and lower epidermis of the leaf leaving translucent tunnels that affect the plant's ability to manufacture food. Handpick and destroy the affected leaves.

Recommended Variety -- Early Variety

Egyptian Turnip-Rooted (See Figures 13-15)

Quinn describes the Dark Red Egyptian Turnip Beet as a new variety, "...that is highly spoken of by those who grew it last year. It is said to be ten or twelve days earlier that the Blood Turnip and, in quality, fully equal to that variety."³⁰

The earliest of all beets to mature, growing with wonderful rapidity. Bulbs resemble a Flat Dutch Turnip in shape, of medium size, and very dark, blood-red flesh, of good quality.³¹

James Vick describes this variety as not a very productive one.³² A French seedsman lent the following description:

Egyptian Dark-red Turnip-rooted Beet-- An exceedingly early variety, and certainly the best of the early kitchen-garden kinds. Roots rounded an

flattened, especially underneath, almost entirely overground, and resting on the surface (to which it is held down by a rather slender tap-root), very symmetrical in shape until it has grown larger than the fist, when it frequently becomes irregular or sinuated in form as it increases in Skin very smooth, of a violet or slaty red size. colour; flesh of a dark blood colour; leaves slight, brownish red, more or less mixed with green; leafstalks long and slender, and of a lively red colour. When sown in the open air under favorable conditions, the roots of this variety may be pulled for table use in June, when they are about as big as a small orange, their quality being then at its best. ... the roots of this kind also may be grown very close together.³³

Documentation

Landreth 1874,1876,1884

Commercial Sources

The Garden Seed Inventory lists:

No Sources

Private Sources

The Seed Saver's Exchange 1987 Winter Yearbook lists:

John Wyncoll, 21 Harwood St. Darwen, Lancashire, England BB3 1PE Limited quantity

Recommended Variety -- Late Variety

Early Blood Turnip-Rooted (syn. Early Blood, Early Turnip, Early Turnip-Rooted) (See Figures 16-19)

"The old stand-by and a great favorite. Deep blood color. Good early and late."³⁴ Farmer Seed and Nursery Co. W Wyatt-Quarles Seed Co. L Everett Seed, Inc.

Wetsel Seed Co. Landreth Seed Co.

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Private Sources

The Seed Saver's Exchange 1987 Winter Yearbook lists:

No Sources

FOOTNOTES

¹Interview with Catherine Cheyney, Eleutherian Mills Hagley Foundation Oral History File, Greenville, DE, 26 March 1984.

²Meriggi, Interview, 24 July 1984.

³Interview with Elizabeth Beacom, Eleutherian Mills Hagley Foundation Oral History File, Greenville, DE, 29 May 1967.

⁴Interview with Eugene Bruno, Eleutherian Mills Hagley Foundation Oral History File, Greenville, DE, 12 March 1981.

⁵Interviews with Catherine Cheyney, Eleutherian Mills Hagley Foundation Oral History File, Greenville, DE, 3 April 1964, 23 January 1984, 26 March 1984.

⁶Hudson, Interview, 1 August 1968.

⁷Interviews with C. Natalie Meriggi, Eleutherian Mills Hagley Foundation Oral History File, Greenville, DE, 20 June 1984, 24 July 1984.

⁸Cammock, Interview, 24 July 1984.

⁹Yetter, Interview, 25 July 1984.

¹⁰Cheyney, Interview, 26 March 1984.

¹¹The Organic Gardener's Complete Guide to Vegetables and Fruits, Emmaus, PA: Rodale Press, Inc., 1982, p. 170.

¹²Buist, <u>Kitchen Gardener</u>, p. 29-30.

¹³Parker and White, 1852, p. 88.

¹⁴Dreer's Garden Calendar, Philadelphia, 1872, p. 12.

¹⁵Buist, <u>Kitchen Gardener</u>, p. 30.

¹⁶Burr, <u>Vegetables of America</u>, p. 2-3.

¹⁷<u>Vick's Floral Guide</u>, Rochester, NY: Charles F. Muntz and Company, 1885, p. 84.

¹⁸Burr, <u>Vegetables of America</u>, p. 3.

¹⁹Meriggi, Interview, 24 July 1984.

²⁰Peter Henderson, <u>Gardening for Pleasure</u>, New York: Orange, Judd and Company, 1875, p. 183.

²¹Burr, <u>Vegetables of America</u>, p. 3.

²²Buist, <u>Kitchen Gardener</u>, p. 30.

²³Vick's, 1875, p. 84.

²⁴Cheyney, Interview, 3 April 1964.

²⁵Meriggi, Interviews, 10 June 1984, 20 June 1984.

²⁶Buist, <u>Kitchen Gardener</u>, p. 42.

²⁷Cheyney, Interview, 23 January 1984.

²⁸Boys, <u>Guidelines</u>, p. 4.

²⁹Burr, <u>Vegetables of America</u>, p. 2.

³⁰Quinn, <u>Money</u>, p. 59.

³¹Burpee's, 1883, p. 7.

³²Vick's, 1880, p. 75.

³³Vilmorin-Andrieux, <u>The Vegetable Garden</u>, p. 81.

³⁴Burpee's, 1883, p. 9.

³⁵Dreer's Garden Calendar, Philadelphia, 1891, p. 9.

3⁶Quinn, <u>Money</u>, p. 59.

³⁷Burr, <u>Vegetables of America</u>, p. 8-9.

"Not as early as the Egyptian, but of good quality, blood red, tender, and good for late keeping."³⁵ Quinn stated that the Early Blood Turnip-Rooted beet was the most popular early beet cultivated by gardeners in 1871.³⁶

The roots of this familiar variety are produced almost entirely within the earth, and measure, when of average size, from four inches to four and a half in depth, and about four inches in diameter. Form turbinate, flattened, smooth, and symmetrical. Neck small, tap-root very slender, and regularly tapering. Skin deep purplish red. Flesh deep blood-red, sometimes circled and rayed with paler red, remarkably sweet and tender. Leaves erect, not very numerous, and of a deep-red color, sometimes inclining to green; but the stem and nerves always of a deep brilliant The Early Blood Turnip Beet succeeds well red. from Canada to the Gulf of Mexico; and in almost every section of the United States is more esteemed, and more generally cultivated for early use, than any other variety. Among market-gardeners, it is the most popular of the summer beets. It makes a rapid growth, comes early to the table, and, when sown late, keeps well, and is nearly as valuable for use in winter as in summer and In common with most of the table sorts, autumn. the turnip-rooted beets are much sweeter and more tender if pulled before they are fully grown and consequently, to have a continued supply in their greatest perfection, sowings should be made from the beginning of April to the last of June, at intervals of two or three weeks.³⁷

Documentation

Bridgeman 1837 Landreth 1876,1880 Dreer 1872 Vick 1872,1875

Commercial Sources

The Garden Seed Inventory lists:

Archias Arco Seed Co. Chas. H. Lilly Co. Southern States Coop.

CABBAGE Brassica oleracea capitata

Bruno 6/11/1984; Cammock 7/24/1984; Cheyney 12/19/1983, 1/23/1984, 2/15/1984, 3/26/1984; Hudson 8/1/1968; Leto 5/25/1983; Meriggi 6\20\1984, 7/24/1984,; Smith 2/15/1984; Yetter 4/3/1984, 7/25/1984; Photograph 70.285.1A

A hardy, biennial plant, the cabbage was a popular vegetable with not only the powderworkers and their families, but also their livestock. One powderworker's wife prepared a special cooked mash for the chickens during the winter. It consisted of cabbage scraps, potato peelings and other vegetable discards, with the exception of turnips, which the chickens did not like. She mixed in cornmeal and cooked this mash on the stove in an enamel pot. During the summer the chickens ate just about any greens that were thrown to them.¹ Feeding vegetable scraps to the chickens was also a memory of C. Natalie Meriggi.² Blanche MacAdoo Yetter recalled that when she was a child, all of her family's garbage went either to the dogs, the chickens or was thrown out to go "back into the earth".³

Cabbage was an important vegetable in the diet of the powdermen's families and was a staple part of dinner for one

family who frequently feasted on ham, cabbage and potatoes because it was inexpensive.⁴ Ham, cabbage and potatoes was another frequent meal in the childhood home of James The cabbage that his family used was purchased Cammock. rather than grown in the garden.⁵ Miss Cheyney's family made sauerkraut with the cabbage from the garden in crocks that were stored in the basement.⁶ An Italian powderworker's daughter recalled that Irish families frequently ate cabbage with potatoes. In her Italian family cabbage was used to make Italian sauerkraut for Christmas or cooked in soups.⁷ It was also shredded for cole slaw to be served with Sunday roast beef.⁸ One informant recalled that someone in his family did not like the smell of cooking cabbage and so his mother masked the objectionable odor by putting sugar or orange peel on the lid of the coal stove.⁹

Most of the evidence gathered on cabbages indicates that they were grown as a fall crop. Mrs. Yetter recalled that late in the fall the children would go and sit on ripe cabbages that were "almost as big around as a dinner plate and more flat on the top...like as if it was a stool". She said that her family did not plant early cabbage.¹⁰ A photograph taken in October of 1890 shows in the foreground a large mature planting of cabbage that had been seared by the powdermill explosion in the Upper Yard, reinforcing the idea that cabbage was grown as a fall

harvested crop.¹¹ (See Figure 5) However, with the frequent use of cabbage in the main meal of the day, some early cabbage was probably grown to supply the table through the summer. The bulk of the crop was timed for fall harvest and winter storage.

Green cabbage was grown most commonly, although red cabbage was known in the area. Miss Cheyney recalls someone giving her family heads of red cabbage which she thought were beautiful.¹²

Culture

"I have seen, however, where the garden depended upon the exertions of the cook, or the dexterous management of the housewife, a good crop of early cabbage plants grown in the kitchen window."¹³

Early cabbage should be started indoors six to eight weeks before the ground can be worked.¹⁴ A clay flower pot on a sunny window sill could serve nicely for this purpose. There is no evidence to suggest that the powdermen started cabbage transplants early indoors. One powderman's daughter remembered going into Wilmington to purchase cabbage seedlings from farmers at the King Street Market. Planting these seedlings produced a finer crop than that produced by seeding directly into the garden.¹⁵

In a pot of good garden soil sow the seed a half inch inch deep. Thin out the weakest seedlings. As soon as the ground is workable, transplant the remainder (five to six inches high) after hardening them off in rows eighteen to twenty-four inches apart with the same space remaining between the plants.¹⁶

Early cabbage transplants can be set out as soon as the ground can be worked. Cloudy days are the best for this operation to reduce water loss. The seedlings should be planted up to the first leaf to protect the stem from frost damage.¹⁷ ¹⁸ Cultivate weekly to check the growth of weeds.

The later main crop can follow the harvest of earlier crops such as spinach, peas, or early beans.¹⁹ If transplants are used for the later main crop plantings heed the following advice.

When planting out in summer, as the weather is frequently very dry and hot, the ground should be fresh dug, the plants carefully lifted (having given them a copious watering the evening previous, and their roots dipped into a puddle or mush of cow dung, soot, or earth before planting; then dibble them in firmly, give them a good watering, and a certain growth will follow.²⁰

If sowing seed directly into the garden for a late crop, sow two or three seeds at three foot intervals and thin to the strongest plant.²¹ Keep the area free of weeds, but cultivate carefully around the roots to prevent damage. One informant said that the cabbage plants were arranged in rows in the garden.²² Another recalled the seed for cabbage being "sowed". She used this same terminology in describing the broadcast planting of turnips.²³ Cabbage may

also be seeded out in a small bed to obtain transplants for a later crop and in this case they would probably have been sowed or broadcast planted.

The autumn and winter sorts, sow in April or early in May, in a moderately shaded border, in shallow drills, three or four inches apart.

Transplant early in July, in rows thirty inches apart, and about two feet apart in the rows.²⁴

Harvest & Storage

Early cabbage should be harvested as detailed below.

When the heads feel firm, cut them as needed from their stalks with a sharp knife. Heads left to grow for too long will burst. The ripening process can be delayed somewhat by breaking some of the roots with a shovel, or by pulling on the head slightly to accomplish the same.²⁵

"Cabbage for winter storage should be pulled by the roots before they fully mature and before hard frosts, dried off and stored in a cool, moist area."²⁶ The heads may be stored upside down in pits in the garden and covered by twelve inches of soil.²⁷ Do not handle cabbages when frozen or they will bruise.²⁸

Evidence suggests that cabbages were stored in pits in the powderworker's gardens much as were beets, carrots, celery and turnips. Mrs. Meriggi described her father's pit as being two to three feet deep, lined with straw, located near the gate into the garden and covered with straw and tarpaper to keep the water away. Her father left a hole through which they could reach to retrieve the vegetables. She said that these stored vegetables lasted until after Christmas. The roots of the cabbages were removed from the heads before they were put into storage.²⁹

Pests & Diseases

Imported Cabbage Worm, Cabbage Looper, Harlequin Bug, Damping Off, Blackrot, Blackleg, Downy Mildew, Alternaria Leaf Spot, Cabbage Mosaic Virus, Wilt, Soft Rot, Club Root can affect cabbage in this area.³⁰

Unfortunately, the cabbage plant has a few very destructive enemies. Among the most destructive are the imported cabbage butterfly, club root, root maggots and flea beetles. Miss Cheyney recalled that her father would sometimes have trouble with his cabbages not forming a head.³¹ Peter Lindtner also reported troubles with four-legged pests chewing on cabbage plants.³² Fencing should solve some of this problem.

A great deal of concern over cabbage pests was expressed by some of the informants interviewed. This indicates the importance of this crop to the powdermen and their families as they recall specific pest problems on very few other crops. Even the seed catalogs of the day gave advice on ridding the cabbage of common pests along with their variety descriptions.

Mrs. Meriggi remembered inspecting the cabbages for insect pests, specifically a green worm. Her father's remedy was to tie a white powder, which she said was sulphur, into a cheesecloth pouch and to sprinkle a little of it on the plants. He also would handpick the insects from the plants and squash them underfoot.³³

Margaret Seitz also remembers worms on the cabbage. The remedy was to dust the plants after they headed.³⁴ From these recollections we know that control was used against what we know is the imported cabbage moth larvae. Handpicking should be used as the primary control. Use a recommended insecticide in dust form if populations of this insect become seriously destructive.

Rotation of vegetables in the brassica group or cabbage family with other groups, or liming the soil, will help control clubroot. Both of these controls can be employed by the museum staff, although there is no evidence that they were consciously undertaken by the powderworkers so should not be included in the interpretation of the garden.

Root maggots can be controlled by crop rotation as well as an application of recommended insecticide according to label instructions as a preventative measure at the time of transplanting. Burr recommended adding wood ashes to the

soil before planting to deter insects and this practice may help with the control of the root maggot.³⁵

James Cammock dusted those plants afflicted with insect pests in his garden with lime. However he remembered watching the weather, and if it was hot and dry, he would wash off the lime with water so that it would not burn the plant.³⁶

Dreer's Garden Calendar of 1872 gave the following advice for dealing with the flea beetle:

Late plants are subject to attack of the cabbage fly, destroying them as fast as they appear above ground. Various remedies are recommended for the preservation of the plants, such as sprinkling them with ashes, air-slaked lime, plaster or tobacco, which should be performed early in the morning.³⁷

Another horticulturist of the period, Issac Tillinghast, recommended a dusting of lime or plaster dust to rid the cabbage of the ravages of the flea beetle.³⁸

Recommended Variety -- Early Variety

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Early Jersey Wakefield (See Figures 20,21)

A variety suited for spring culture and summer harvest. Cabbage was such an integral part of the powderworker's diet that although all indications seem to point to a large fall harvested crop of cabbage, there is a good chance that some early cabbage was grown to provide food during the early summer months when stored cabbage would be difficult to keep dormant. Quinn recommended this variety as the best early cabbage.³⁹

Jersey Wakefield .-- This is an admirable variety, and fully sustains all we have heretofore said in its favor as a variety suited to the family garden -- though it must be admitted it presents many conditions: it is early, late, pointed, round, rough and smooth-leaved; yet there is so much to commend it that the family which grows but one early sort will do well to take the Jersey Wakefield. The heads begin to mature at Philadelphia the first of July, and may be cut in succession for several weeks. This prolongation of the season of ripening, though adding to its value as a family cabbage, may under certain conditions lessen its worth to the Market Gardener, who desires to clear the land promptly, preparatory to planting some other crop.40

A French seedsman, MM. Vilmorin-Andrieux described

the Jersey Wakefield cabbage in the following words:

This variety is well distinguished from the forms of Ox-heart Cabbages by the yellowish tint and very stiff texture of its leaves, and it has a longer stalk than any of the Ox-heart Cabbages properly so called. The outer leaves, which are of a pale glaucous-green colour, are rounded in shape, very faintly undulated at the edges, and remarkably firm and stiff; those which immediately surround the head are often hollowed like a spoon. The head itself, which is of a very pale-green colour, is of a short, bluntish, conical shape, and often tinged with red on the side exposed to the sun. This is an early and productive variety, and the head keeps firm for a considerable length of time-- an important advantage when it is grown as a field crop.⁴¹

Documentation

Landreth 1874,1876,1877,1884

Vicks 1872,1880

Commercial Sources

The Garden Seed Inventory lists:

"Resists splitting, intro. about 1840"42

Asgrow Seed Co.California Gardeners SeedGuerney's Seed & Nursery Co.Co.Indiana Seed Co.Lindenberg Seeds Ltd.Page Seed Co.R.H. Shumway SeedsmenTregunno Seeds Ltd.Crosman Seed Corp.Eckroat Seed Co.Gaze Seed Co. Ltd.Seed Service...etc.

Jersey Wakefield cabbage is very commonly offered commercially in today's market.

Private Sources

No Sources

Recommended Variety -- Late Variety

Large Flat Dutch (syn. Premium Flat Dutch) (See Figure 22)

Mrs. Yetter recalled fall-harvested cabbages that she as a child would sit on because they were "almost as big around as a dinner plate and more flat on the top...like as if it was a stool".⁴³ This type of cabbage could have been the variety Large Flat Dutch. Quinn also recommended this variety as one of the best late cabbages for the home garden.⁴⁴

Heads large, bluish-green, round, solid, broad and flat on the top, and often tinted with red or brown. The exterior leaves are few in number, roundish, broad and large, clasping,

blistered on the surface, bluish-green in the early part of the season, and tinged with purple towards the time of harvesting; stalk short. It is one of the largest of cabbages, rather late, good for autumn use, and one of the best for winter or late keeping, as it not only remains sound, but retains its freshness and flavor till late in the spring. The heads open white and crisp, and when cooked, are tender and well flavored. It requires good soil, and should be set in rows not less than three feet apart, and not nearer together than thirty inches in the rows.45

Documentation

Landreth 1874,1876 Vick 1875,1880 Vilmorin-Andrieux 1885

Commercial Sources (Large, Late Flat Dutch)

"Large, firm flat/oval heads, 7" deep by 12-14" dia., white interior, excel. keeper and shipper, makes good after dry spells, intro. by first European settlers.⁴⁶

The Garden Seed Inventory lists:

Arco Seed Co. Asgrow Seed Co. Bonanza Seeds Farmer Seed and Nursery Co. H.G. German Seeds Inc. Chas. C. Hart Seed Co. Meyer Seed Co. Olds Seed Co. Page Seed Co. Johnson Seed Co. J.B. Rice Jr., Inc. R.H. Shumway, Seedsman Geo. Tait and Sons, Inc. Vaughn's Seed Co. Willhite Seed Co. Mountain Valley Seeds and Nursery Good Seed Co. Seeds for All

J.P. Snapp & Sons Wetsel Seed Co., Inc. Saunders Seed Co., Inc. Geo. W. Hill and Co. Mellinger's Inc. The Ohio Seed Co. Southern Exposure Seed Exchange Henry Field Seed & Nursery Tillinghast Seed Co. Crockett Seeds Lakeland Nurseries Sales Livingston Seed Co. Royal Seeds, Inc. Everett Seed, Inc.

Private Sources

No Sources

Recommended Variety -- Savoy Type Drumhead Savoy (See Figures 23-25)

C. Natalie Meriggi remembers her family growing only savoy cabbage for its milder flavor and because it was less gasey. She said that it was the cabbage that her family was raised on.⁴⁷ Quinn recommended the Drumhead Savoy cabbage as one of two excellent late cabbage varieties for the home garden.⁴⁸

An excellent Winter and Spring family Cabbage, partaking partially of the size of the Drumhead and the curled leaves of the Savoy... It may be readily kept until late in Spring, and appears to improve by the process of ripening -becoming marrow-like and free from the rank flavor which sometimes attaches to the Cabbage.⁴⁹

A French seedsman describes the variety Large Drumhead Savoy as follows:

Stem 6 to 8 inches high, stout, bearing a broad, thick, compact head, which is flattened on the top, sometimes slightly tinged with a wine-leesred colour, and almost perfectly smooth, being only partially crimped at the edges of the leaves; outer leaves rather numerous, large, broad, stiff, well spread out, of a rather dark and slightly glaucous-green colour, and not so finely or abundantly crimped as those of most other Savoy Cabbages.⁵⁰

Documentation

Landreth 1874,1876,1877

Vick's 1872,1880

Commercial Sources

"Large, coarsely crumpled heads, excel. color, very sure heading, blanches well, very firm, crisp & tender, superior quality..."⁵¹

The Garden Seed Inventory lists:

Allen, Sterling and LothropChas. C. Hart Seed Co.Gaze Seed CompanyJ.B. Rice Jr., Inc.

Private Sources

The Seed Saver's Exchange 1987 Winter Yearbook lists: No Sources

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FOOTNOTES

¹Cheyney, Interviews, 19 December 1983, 15 February 1984, 26 March 1984.

²Meriggi, Interview, 20 June 1984.

³Interview with Blanche MacAdoo Yetter, Eleutherian Mills Hagley Foundation Oral History File, 3 April 1984.

⁴Yetter, Interview, 25 July 1984.

⁵Cammock, Interview, 24 July 1984.

⁶Cheyney, Interview, 15 February 1984.

⁷Meriggi, Interviews, 20 June 1984, 24 July 1984.

⁸Yetter, Interview, 25 July 1984.

⁹Bruno, Interview, 12 March 1981.

¹⁰Yetter, Interview, 25 July 1984.

¹¹Photograph 70.285.1A, Eleutherian Mills Hagley Foundation Oral History File, Greenville, DE.

¹²Cheyney, Interview, 15 February 1984.

¹³Buist, Kitchen Gardener, p. 38.

¹⁴Griffith, <u>Vegetable Garden Handbook</u>, p. 28.

¹⁵Cheyney, Interviews, 3 April 1964, 23 January 1983.

¹⁶Griffith, <u>Vegetable Garden Handbook</u>, p. 28.

¹⁷Samuel B. Green, <u>Vegetable Gardening</u>, St. Paul, MN: Webb Publishing Co., 1904, p. 146.

¹⁸Dreer's Garden Calendar, Philadelphia, 1891, p. 10.

¹⁹Green, <u>Vegetable Gardening</u>, p. 148.

²⁰Buist, <u>Kitchen Gardener</u>, p. 39.

²¹Vick's, 1872, p. 93.

²²Meriggi, Interview, 24 July 1984.

²³Yetter, Interview, 25 July 1984.

²⁴Dreer's, 1872, p. 13.

²⁵Green, <u>Vegetable Gardening</u>, p. 146.

²⁶C.L. Allen, <u>Cabbage</u>, <u>Cauliflower</u> and <u>Allied</u> <u>Vegeta-</u> <u>bles</u>, New York: Orange Judd Company, 1915, p. 47.

²⁷Allen, <u>Cabbage</u>, p. 51.

²⁸Allen, <u>Cabbage</u>, p. 49.

²⁹Meriggi, Interviews, 20 June 1984, 24 July 1984.

³⁰Boys, <u>Guidelines</u>, p. 5-6.

³¹Cheyney, Interview, 23 January 1984.

³²Lindtner, Interview, 11 April 1984.

³³Meriggi, Interview, 24 July 1984.

³⁴Seitz, Interview, 13 May 1984.

³⁵Burr, <u>Vegetables of America</u>, p. 252.

³⁶Cammock, Interview, 24 July 1984.

³⁷Dreer's, 1872, p. 13.

³⁸Issac F. Tillinghast, <u>A Manual of Vegetable Plants</u>, New York: S.W. Green, 1879, p. 38.

³⁹Quinn, <u>Money</u>, p. 264.

⁴⁰Landreth's, 1883, p. 43.

⁴¹Vilmorin-Andrieux, <u>The Vegetable Garden</u>, p. 112.

⁴²Kent Whealy, <u>The Garden Seed Inventory</u>, Decorah, IA: Seed Saver Publications, 1985, p. 107.

⁴³Yetter, Interview, 25 July 1984.

⁴⁴Quinn, Money, p. 264.

⁴⁵Burr, <u>Vegetables of America</u>, p 252.
⁴⁶Whealy, <u>Inventory</u>, p. 107.

⁴⁷Meriggi, Interview, 24 July 1984.

⁴⁸Quinn, <u>Money</u>, p. 264.

⁴⁹Landreth's Rural Register and Almanac, Philadelphia, 1884, p. 52.

⁵⁰Vilmorin-Andrieux, <u>The Vegetable Garden</u>, p. 127.

⁵¹Whealy, <u>Inventory</u>, p. 116.

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CARROT Daucus carota

Cammock 7/24/1984; Cheyney 1/23/1984, 2/15/1984, 3/26/1984; Meriggi 6/10/1984, 6/20/1984, 7/24/1984, Seitz 5/13/1984; Yetter 7/25/1984

A half-hardy biennial, carrots had mixed reviews by the informants. One informant remembered harvesting the long, thin roots as a child although she did not personally like the vegetable.¹ Mrs. Yetter did not like carrots much either as a child. Her grandmother used them in soups.² James Cammock did not grow carrots in his family's garden.³ Another informant recalled that it was an important vegetable in her family's diet and was used to a great extent.⁴

The carrot does seem to be a vegetable that was grown in the gardens near the Hagley Yards, but was not of great significance. It is interesting to note what a nineteenth century horticulturist had to say on the use of carrots.

Though not relished by all palates, carrots are extensively employed for culinary purposes, and are generally considered healthful and nutritious. They form an important ingredient in soups, stews, and French dishes of various descriptions; and by many are much esteemed, when simply boiled, and served with meats or fish.⁵

Culture

Like all root crops, carrots thrive in a deeply dug, light, fertile, stone-free soil. Manure used as fertilizer for root crops must be well aged or the nitrogen in it will cause the roots to form irregularly.⁶ This caveat is echoed by two nineteenth century seedsmen who suggested in their catalogs that carrots be planted in soils which were manured for another crop the previous season and require no fresh manure.⁷ 8

The seedlings of carrots will tolerate light frost and can be planted as soon as the ground is workable in the spring. Dreer's Garden Calendar of 1872 recommended sowing for an early crop in late March and sowing for a late crop in May. Drills should be one inch deep and one foot apart.⁹ According to one informant carrots were planted in rows in her family's garden.¹⁰ "...when the plants are well up, thin them to three or four inches. Hoe frequently, and keep clean from weeds."¹¹

The Carrot flourishes best in a good, light, well-enriched loam. Where there is a choice of situations, heavy and wet soils should be avoided; and, where extremes are alternatives, preference should be given to the light and dry. If possible, the ground should be stirred to the depth of twelve or fifteen inches, incorporating a liberal application of well-digested compost, and well pulverizing the soil in the operation. The surface should next be leveled, cleared as much as possible of stones and hard lumps of earth, and made mellow and friable; in which state, if the

ground contains sufficient moisture to color the surface when it is stirred, it will be ready for seed. This may be sown from the first of April to the 20th of May; but early sowings succeed best. The drills should be made an inch in depth; and for the smaller, garden varieties, about ten inches apart. The larger sorts are grown in drills about fourteen inches apart; and the plants in rows being thinned to five or six inches asunder.¹²

Harvest & Storage

Harvesting can be performed as needed until the tops begin to yellow or the danger of hard frost when the entire crop should be dug on a dry day. Cut the green tops to within one inch of the root. Store the crop in the cool frost-free cellar submerged in dry soil or sand.¹³ ¹⁴ They were also "...be pitted out of doors, covered with two inches of straw and a foot of earth, to keep them from frost, when they can be in use till the following April."¹⁵

One powderman's family stored their carrots packed in soil in shallow market-type baskets made of reeds or in trays in the cool, dark, earthen-floored cellar.¹⁶ Others stored them with the rest of the vegetables in pits in the garden.¹⁷ Dr. Margaret Seitz remembered carrots being stored in pits near the edge of the garden and covered with first straw and then soil.¹⁸

Pests & Diseases

Carrot Weevil, Leafhoppers, Black Swallowtail Butterfly, Leafspot, Crown Rot, Aster Yellows, Root Knot Nematode can affect the carrot crop.¹⁹ Enemies also include the carrot rust fly maggot, groundhog and rabbit.

A high nitrogen content in the soil resultant from the addition of fresh manure or other organic matter as well as hard clods of soil or rocks cause the formation of forked, irregularly shaped roots.²⁰ Careful preparation of the seed bed including the removal of any rocks with perhaps the incorporation of sand into the soil should prevent the formation of forked roots. Fencing surrounding the garden will keep out the largest rabbits and groundhogs.

The relative low importance placed on carrots by the informants suggest that this vegetable was not valuable enough to spend time or money on pest control other than fencing.

Recommended variety

Long Orange (See Figures 26-28)

Catherine Cheyney remembers pulling "long, thin roots" which matches the description of the Long Orange Carrot.²¹ Quinn lists the Long Orange or Bliss' Improved Long Orange as the best varieties for the home garden.²²

"Introduced into America in the 1600's."²³

"...suitable for a main crop...for a late crop sow in May."²⁴

"If only one kind is raised, the Long Orange is preferable."²⁵

"...grows to a great length, frequently two feet long."²⁶

Root long, thickest at or near the crown, and tapering regularly to a point. Size very variable, being much affected by soil, season, and cultivation; well grown specimens measure fifteen inches in length, and three inches in diameter at the crown. Skin smooth, of a reddish orange color. Flesh comparatively close-grained, succulent, and tender, of a light-reddish vermillion or orange color, the heart lighter, and large in proportion to the size of the root. Foliage not abundant, but healthy and vigorous, and collected into a comparatively small neck. The roots are usually produced entirely within the earth. If pulled while young and small, they are mild, fine-grained, and good for table use; but when full grown, the texture is coarser, and the flavor stronger and less agreeable. ... The seed is usually sown in drills, about fourteen inches apart, formed by turning two

furrows together; the ridges yielding the largest roots, and the drills the greatest quantity. 26

Documentation

Bridgeman 1837 Landreth 1874,1876,1884 Henderson 1875 Vick 1872

Commercial Sources

The Garden Seed Inventory lists:

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Arco Seed Co.Royal Seeds, Inc.Dorsing Seeds, Inc.Southern States Coop.Eckroat Seed Co.Weeks Seed Co.Chas. C. Hart Seed Co.Wyatt-Quarles Seed Co.

Private Sources

The Seed Saver's Exchange 1987 Winter Yearbook lists:

No Sources

FOOTNOTES

¹Cheyney, Interview, 26 March 1984. ²Yetter, Interview, 25 July 1984. ³Cammock, Interview, 24 July 1984. ⁴Meriggi, Interview, 24 July 1984. ⁵Burr, Vegetables of America, p. 21. ⁶Burr, <u>Vegetables of America</u>, p. 2. ⁷Parker and White, 1852, p. 90. ⁸Dreer's, 1872, p. 14. ⁹Dreer's, 1872, p. 14. ¹⁰Meriggi, Interview, 24 July 1984. ¹¹Parker and White, 1852, p. 90. ¹²Burr, Vegetab<u>les of America</u>, p. 20. ¹³Buist, <u>Kitchen Gardener</u>, p. 42. ¹⁴Burr, <u>Vegetables of America</u>, p. 20. ¹⁵Buist, Kitchen Gardener, p. 42. ¹⁶Cheyney, Interviews, 23 January 1984, 15 February 1984, 26 March 1984. ¹⁷Meriggi, Interview, 20 June 1984. ¹⁸Seitz, Interview, 13 May 1984. ¹⁹Boys, Guidelines, p. 6. ²⁰Orga<u>nic Gardeners Complete Guide</u>, 1982, p. 179. ²¹Cheyney, Interview, 26 March 1984.

²²Quinn, <u>Money</u>, p. 264.

²³Robert F. Becker, "Carrots", Geneva, NY: New York State Experiment Station, New York Cooperative Extension Service, March 1981, p. 3.

²⁴Dreer's, 1872, p. 14.

²⁵Parker and White, 1852, p. 90.

... ...

²⁶Burr, <u>Vegetables of America</u>, p. 24-25.

CELERY Apium graveolens

Beacom 5/29/1967; Bruno 3/12/1981; Cammock 7/24/1984; Cheyney 4/3/1964, 2/15/1984, 3/26/1984; Meriggi 6/20/1984, 7/24/1984; Seitz 5/13/1984; Yetter 7/25/1984

Celery is one of the more challenging of garden vegetables to grow because of the exacting conditions necessary for a successful crop. Although it is not grown in many home gardens today, Burr lists it as second only to lettuce as a salad plant in America in 1865.¹ A hardy biennial, celery requires a long growing season, is a heavy feeder and needs constant moisture.

The informants recalled celery as being of mixed importance in the garden although the ones that speak of celery had vivid and accurate memories of growing and storing the crop. Miss Cheyney recalled "beautiful celery beds" as part of her vision of the family garden in an early interview.² She also stated that her mother grew some celery for Thanksgiving.³ Many informants associate this vegetable with the Thanksgiving and Christmas holidays.⁴ 5 6

There are two reasons why celery might be associated with the holidays. The plants take an entire growing season to mature and even more time to blanch which, according to a nineteenth century horticulturist, was the preferred state in which they were consumed.⁷ Celery has a very high water content and does not remain in an edible state if exposed to freezing temperatures. Cabbage which can freeze in storage and, if thawed gradually, remains edible. If the crop of celery was consumed during the holidays, there was no need for concern that it would freeze during colder weather in late winter. None of the informants recalled growing large quantities of the vegetable. I surmise that enough was included in the garden to insure a supply for holiday meals.

C. Natalie Meriggi stated that to her family, celery was an important crop at times other than holidays. She said that it was eaten both fresh and cooked in soups.⁸ Bruno also recalled that his family's supply of celery lasted all winter long.⁹ Regardless of how it was used, celery did seem to be a highly esteemed vegetable in the minds of the informants.

Culture

Sow the last of March or early April in an open border, in rich, mellow ground, in shallow drills, watering freely in dry weather. By rolling or pressing in the seed the result will be more satisfactory than when covered. Cut the tops off once or twice before planting out, to make

them stocky. When the plants are five or six inches high, transplant, the dwarf varieties three feet, and the taller sorts four feet between the rows, plants six inches apart in the rows.

Cultivate well, and when large enough blanch by earthing up. The first operation is that of 'handling' after the soil has been drawn up with the hoe, it is drawn closer around each plant by the hand, to keep the leaves firm in an upright position and prevent spreading. When the plants have become 'set' in an upright position and the celery is wanted for early use, they should be 'banked'. This is done by throwing the soil up as close to the plants as possible with a plough and finishing it with a spade, bringing the earth up nearly to the tops of the plants. If it is intended to store away for winter use, the 'handling' process is all that is necessary, as the blanching will be done in the trenches.¹⁰

Celery can either be blanched or eaten green. Green celery is more nutritious and is becoming more popular today,¹¹ but blanched celery was the preferred type in the late nineteenth century.¹²

Miss Cheyney recalls having to get the crop of celery in early as it took a long time to mature.¹³ C. Natalie Meriggi remembered her family transplanting celery seedlings to a permanent place in the garden.¹⁴

...it may be sown in the open ground in April or May, but when so treated vegetates slowly, often remaining in the earth several weeks before it comes up...Sufficient plants for any family may be started in a large flower pot or two, placed in the sitting room, giving them plenty of light and moisture.¹⁵

The normal practice is to gradually earth up their stems each week as they grow, using the soil removed from

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in between the rows. This blanching procedure is tricky because if the soil is allowed to seep into the crown of the plant, growth is stunted and disease is encouraged.¹⁶ Miss Cheyney recalled the practice of hilling up the earth around the plants in order to blanch the stems.¹⁷

Nineteenth century horticulturists recommended transplanting twice and digging deep trenches enriched with eighteen inches of well rotted manure.¹⁸ Only one informant referred to trenches. My premise is that the process of digging and enriching the trenches would have consumed more time and energy than the powdermen had to give. Miss Cheyney said that her family made no special preparations of the bed for celery.¹⁹ The informants spoke of storing the celery for at least a short time during the winter, when the blanching process would be accomplished. In 1871 Quinn stated that the practice of trenching celery, which was popular twelve to fifteen years previously, was abandoned as too laborious and needless. He claimed that celery grew better when planted on the surface of well manured soil, just as most other crops were treated.²⁰ I recommend using this last bit of advice.

Harvest & Storage

Celery may be harvested when of sufficient size either by removing the outer stalks singly or by cutting the entire

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plant off at the roots. Harvest and use the crop or prepare it for winter storage before the first hard frost.²¹

Evidence from an interview indicates that one family accomplished the blanching and storage process by the following method:

I do remember my father having celery. And you could go there any, anytime of the year. And I mean anytime -- December, January, February, March and get fresh celery out of the garden. He would plant the celery in a sort of like trench. And I remember he used to send me after leaves up...the section up here by Bayard Avenue where there's so many trees. And they would put leaves in that trench around these celery stalks, and old newspapers if they had any. Then cover it with dirt. In the winter if you wanted celery, you had to dig one corner. And that thing was yellow as the top of this tablecloth. And tender! It was really, really good. Nice and cool, too. And this is what we used to eat in the winter.²²

Another informant did not recall the process in such detail but remembered a ditch filled with celery plants with the roots intact covered over with straw. The whole was buried under a mound of earth.²³

Even one informant whose family did not actually grow celery recalled that others grew it and stored it in pits under a mound of soil in order to have it for the Thanksgiving and Christmas holidays. Mrs. Yetter said that it had to be eaten before the weather got really cold or it would freeze.²⁴ Mr. Bruno was the only informant who remembered eating celery stored in a trench during the entire winter.²⁵ The celery pit or trench should be covered with soil to a depth of twelve inches to insure that the vegetable is protected from freezing temperatures.

Pests & Diseases

The major disease problem is blight. It is also important to maintain an even water supply for celery plants or the growth will be tough and stringy rather than crisp and succulent.

No mention was made by informants of any attempt at disease control. My recommendation is that none be practiced. However care should be taken in cultivation so that soils are generously enriched with well-rotted manure and the crop is never allowed to dry out during the season.

Recommended Variety

White Solid (See Figures 29,30)

Quinn recommended White Solid as one of the best celery varieties for the home garden.²⁶ A French horticulturist described it as: "A vigorous-growing kind, 16 to 20 inches high, with fleshy, solid, and tender stalks, which, in blanching, become of a yellowish-white color. Leaves erect.²⁷

This variety is of strong and rather tall growth; the leaf-stalks are generally solid, but when grown in rich, highly manured soil, they sometimes become slightly hollow; the leaves are large, smooth, and bright green; serratures large and obtuse. It blanches readily, is crisp, of excellent quality, and comes into use earlier than the Red sorts. It is generally cultivated in the Northern States, not only on account of its hardiness, but for its keeping qualities. As a market variety, it is one of the best.²⁸

Documentation

Bridgen	nan 1837		Buist	1853
Burpee	1880		Dreer	1872
Parker	and White	1852	Rogers	1839

Commercial Sources

The Garden Seed Inventory lists:

Abbott & Cobb, Inc.

Private Sources

The Seed Saver's Exchange 1987 Winter Yearbook lists:

John Wyncoll, 21 Harwood St., Darwen, Lancashire, England BB3 1PE

FOOTNOTES

¹Burr, Vegetables of America, p. 315. ²Cheyney, Interview, 3 April 1964. ³Cheyney, Interview, 19 December 1983. ⁴Bruno, Interview, 12 March 1981. ⁵Cheyney, Interview, 26 March 1984. ⁶Yetter, Interview, 25 July 1984. ⁷Burr, Vegetables of America, p. 313. ⁸Meriggi, Interview, 24 July 1984. ⁹Bruno, Interview, 12 March 1981. ¹⁰Dreer's, 1891, p. 14. ¹¹Organic Gardener's Complete Guide, 1982, p. 185. ¹²Burr, <u>Vegetables of America</u>, p. 313. ¹³Cheyney, Interview, 15 February 1984. ¹⁴Meriggi, Interview, 24 July 1984. ¹⁵Burr, Vegetables of America, p. 311-12. ¹⁶Green, <u>Vegetable Gardening</u>, p. 180. ¹⁷Cheyney, Interview, 15 February 1984. ¹⁸Burr, Vegetables of America, p. 311-12. ¹⁹Cheyney, Interview, 15 February 1984. ²⁰Quinn, Money, p. 112. ²¹Organic Gardener's Complete Guide, 1982, p. 186. ²²Bruno, Interview, 12 March 1981.

²³Seitz, Questionnaire, 15 February 1984, Interview, 13 May 1984. 80

²⁴Yetter, Interview, 25 July 1984.

²⁵Bruno, Interview, 12 March 1981.

²⁶Quinn, <u>Money</u>, p. 264.

²⁷Vilmorin-Andrieux, <u>The Vegetable Garden</u>, p. 187-88.

²⁸Burr, <u>Vegetables of America</u>, p. 319.

CORN Zea mays

Cammock 7/24/1984; Cheyney 12/19/1983, 1/23/1984; Gamble 4/24/1981; Kauss 2/17/1981; Lattomus & Walls 6/12 ,25/1969; Leto 5/25/1983; Meriggi 7/24/1984; Seitz 5/13/1984; Smith 2/15/1984; Yetter 7/25/1984

Corn was grown by the families of the powdermen living along the Brandywine according to five informants.¹ ² ³ ⁴ ⁵ James Cammock and Catherine Cheyney remembered that their families grew only a small amount of corn in the garden.⁶ ⁷ Blanche Yetter remarked that the gardens were too small to grow corn.⁸ Three other informants recalled that no corn had been grown in their family's garden.⁹ ¹⁰ ¹¹ On their farms, the duPonts grew corn which they sold to the powdermen.¹²

Catherine Cheyney, when asked if her family grew yellow or white corn, replied: "Oh white. We had the yellow corn for the horses. I can't enjoy yellow corn to this day. I always think 'chicken feed'."¹³ Both yellow and white corn were grown according to Anne Smith.¹⁴

The brevity with which the subject is treated and sometimes the omission of the mention of corn in the

horticultural advice manuals of the period, combined with the relative newness of true sweet corn to the market suggests that it may not have been an important vegetable in the gardens of the powdermen. The crop occupies a good deal of space for the return and might not have been viewed as a valuable garden crop. Becker states that sweet corn was not cultivated extensively until the middle of the nineteenth century.

From 1850 to 1880 a number of varieties were developed, and by the end of this period sweet corn was well established as an important item in the diet...Most all of the early varieties had white kernels, and it was not until Golden Bantam was introduced in 1902 that yellow varieties were generally considered fit for human consumption. The early varieties had ears that were five to seven inches long."¹⁵

James Vick had the following to say about the popularity of sweet corn in his 1875 Seed Catalogue:

"We need not consume time or space in speaking of the value of good Sweet Corn, nor of its culture. Every sensible person knows of the former, and every same one the latter -- at least so it seems to us."¹⁶

Culture

Corn may be planted in 'hills' by dropping three or four seeds in a hill four feet each way, or rows five feet apart by dropping seeds at a distance of eight or ten inches in the rows. In this latitude it is useless to plant corn before the middle of May. For succession crops it should be planted every two or three weeks until July first; after that date it will not mature here.¹⁷

Harvest & Storage

Pick the ears as the silks turn brown and dry and the ears feel solid when squeezed between the fingertips. One informant mentioned storing canned corn for the winter.¹⁸

Pests & Diseases

Aphids, Corn Earworm, Flea Beetles, Stalk Borer, Sap Beetles, Bacterial Wilt, Smut all affect corn.¹⁹ Practice clean culture by removing all plant debris at the end of the season and till the soil so that the overwintering insects are exposed to predators and the cold. Corn is a heavy feeder and requires good soil. Informants recalled having problems with the birds and squirrels getting into the corn just as it was ripening.²⁰ James Cammock recalled planting one seed for his family and one for the birds.²¹

He also described in detail a homemade scarecrow contraption that he used to frighten the crows away from his garden. Stakes were placed at each corner of the garden. A twenty five to thirty foot long piece of string was stretched between each pair of stakes down two sides of the garden. James then tied a can to the string about a foot away from each stake. These were soft drink cans that he had scavenged from the dump, into which he put a few pebbles. He also tied cloth strips about a foot long all along the length of the two strings. The combination of

the noise of the pebbles and the movement of the cloth strips when the wind blew served to scare away the birds.²²

Dr. Margaret Seitz remembered that a white powder was sprinkled on the tassels of the corn to keep the insects away.²³ This procedure may have prevented the corn earworm from destroying the kernels of the ear. Insecticidal dust can be used in the same manner. Follow the label directions.

Corn smut is a fungus disease that frequently attacks corn in the Brandywine Valley. Remove infected plant tissue and destroy. One suggested control is to rotate the corn crop the following year to another corner of the garden. As the spores survive from three to five years in the soil and the garden is a relatively small area, escaping the disease through rotation may be difficult to accomplish.²⁴

Recommended Variety

Stowell's Evergreen (See Figures 31-33)

"Stowell's Evergreen is a magnificent variety, Peeping in eating until frost almost."²⁵

"The leading varieties are...Stowell's Evergreen for main crops."²⁶

Late, very productive, ears of large size, fourteen to sixteen rowed, exceptionally tender and sugary, remaining for a long time in an

edible condition. This variety...is necessary to every garden.²⁷

Stowell's Evergreen is without doubt the best late variety on the list. The stocks will produce from three to five ears each. The ears are of a large size, the kernels deep, frequently irregular, and very tender and sweet when boiled. ...The Evergreen is so liable to mix with other varieties of corn, that it is difficult to keep it pure.²⁸

A cross between Menomony Soft Corn and Northern Sugar Corn and first grown by Nathan Stowell in Burlington, NJ about 1850. First listed by Thorburn & Co. in its 1856 seed catalog; 16-18 rows. Improved Stowell's Evergreen is still marketed today and is probably very similar to the original.²⁹

Burr describes it as follows:

"Stalk from six to seven feet in height, and of average diameter; ears of a conical form, six or seven inches long, and two inches and a quarter in diameter at the base; kernels long or deep, pure white when suitable for boiling; of a dull, yellowish-white, and much shrivelled when ripe; cob white, and, in consequence of the depth of the kernels, small in comparison to the diameter of the ear. The variety is intermediate in its season; and if planted at the same time with Dallings or equally early kinds, will keep the table supplied until October. It is hardy and productive, very tender and sugary, and, as implied by the name, remains a long period in a fresh condition and suitable for boiling.³⁰

Documentation

Landreth 1876

Vick's 1880

Commercial Sources

The Garden Seed Inventory lists:

Archias Bonanza Seeds Burrell Seed Growers Co. Fredonia Seed Co. Gurney's Seed & Nursery Co. Ernest Hardison Seed Co. Landreth Seed Co. Letherman's Inc. Le Marche Seeds International Royal Seeds, Inc. J.L. Hudson Seedsman Henry Field Seed & Nursery Chas. H. Lilly Co. J.P. Snapp & Sons Geo. W. Hill Co. Southern Exposure Seed Exchange

Arco Seed Co. Walter Baxter Seed Co. Ferry-Morse Seed Co. Good Seed Co. Chas. C. Hart Seed Co. Johnny's Selected Seeds Oral Ledden & Sons Pinetree Garden Seeds Redwood City Seed Co. Seeds Blum The Ohio Seed Co. Crookham Co. Nationwide Seed & Supply Saunders Seed Co., Inc. Johnson Seed Co.

Private Sources

The Seed Saver's Exchange 1987 Winter Yearbook lists:

No Sources

FOOTNOTES

¹Cammock, Interview, 24 July 1984.

²Cheyney, Interview, 23 January 1984.

³Kauss, Interview, 17 February 1981.

⁴Seitz, Interview, 13 May 1984.

⁵Smith, Questionnaire, 15 February 1984.

⁶Cammock, Interview, 24 July 1984.

⁷Cheyney, Interview, 19 December 1983.

⁸Yetter, Interview, 25 July 1984.

⁹Interview with James Gamble, Eleutherian Mills Hagley Foundation Oral History File, Greenville, DE, 24 April 1981.

10Leto, Interview, 25 May 1983.

¹¹Meriggi, Interview, 20 June 1984.

¹²Lattomus and Walls, 12, 25 June 1969.

¹³Cheyney, Interview, 19 December 1983.

¹⁴Smith, Questionnaire, 15 February 1984.

¹⁵Robert F. Becker, "Corn", Geneva, NY: New York State Experiment Station, New York Cooperative Extension Service, 15 February 1980, p. 1.

¹⁶Vick's, 1875, p. 90.

¹⁷Henderson, <u>Pleasure</u>, p. 196-97.

¹⁸Lattomus and Walls, Interview, 12, 25 June 1969.

¹⁹Boys, <u>Guidelines</u>, p. 7.

²⁰Cheyney, Interviews, 19 December 1983, 23 January 1984.

²¹Cammock, Interview, 24 July 1984.

²²Cammock, Interview 24 July 1984.

²³Seitz, Interview, 13 May 1984.

²⁴Boys, <u>Guidelines</u>, p. 7.

²⁵Vick's, 1875, p. 90.

²⁶Buist, <u>Kitchen Gardener</u>, p. 197.

²⁷Burpee's, 1883, p. 15.

²⁸Quinn, <u>Money</u>, p. 134.

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²⁹Robert F. Becker, "Heirloom Vegetable Varieties Available from Commercial Seed Companies, Geneva, NY: New York State Experiment Station, New York Cooperative Extension Service, revised March 1981, p. 3.

³⁰Burr, <u>Vegetables of America</u>, p. 590.

CUCUMBER Cucumis sativus

Cammock 7/24/1984; Cheyney 2/15/1984, 3/26/1984; Merrigi 7/24/1984; Yetter 7/25/1984

The cucumber is a tender annual that is sensitive to freezing temperatures. One powderman's family grew cucumbers, but did not devote a great deal of space to the crop, as they only planted one row. They ate the cucumbers only in their fresh form.¹ Three other children of powderworkers did not remember their families growing any cucumbers.² ³ ⁴

The evidence suggests that cucumbers were a very minor crop in the gardens of the powderworker's families. My recommendation is to grow one or two hills in alternate years.

Culture

Cucumbers succeed decidedly best in warm, rich, loamy ground. The essentials to their growth are heat and a fair proportion of moisture. They should not be planted or set in the open air until there is a prospect of continued warm and pleasant weather; as, when planted early, not only are the seeds liable to decay in the ground but the young plants are frequently cut off by frost.

The hills should be five or six feet apart in each direction. Make them fifteen and eighteen

inches in diameter, and a foot in depth. Fill them three fourths full of thoroughly digested compost, and then draw four or five inches of earth over the whole, raising the hill a little above the level of the ground. Plant fifteen or twenty seeds in each, cover half an inch deep, and press the earth smoothly over with the back of the hoe. When all danger from bugs and worms is past, thin out the plants, leaving but three or four of the strongest or healthiest to a hill.⁵

Cultivate these shallow rooted plants carefully to keep down the weed growth. Keep the plants well supplied with water as fruit production is hindered by long periods of drought. Direct the vines so they do not interfere with the growth of other crops.

Harvest

As fast as the cucumbers attain a suitable size, they should be plucked, whether required for use or not. The imperfectly formed, as well as the symmetrical, should all be removed. Fruit, however inferior, left to ripen on the vines, soon destroys their productiveness.⁶

Cut the fruits from the vines with a sharp knife to avoid disturbing the roots by trying to pull the fruits from the vine.

Pests & Diseases

Cucumber beetles, squash bug, squash vine borers, powdery mildew are common threats to cucumbers. From personal experience with growing cucumbers, the plant is prone to a number of ills which can easily cause crop twelve inches in length. The flesh is firm and brittle. It is only grown for home use or for pickles.¹¹

This is a large-sized variety, and somewhat later than the White-spined. The plant is a strong grower, and the foliage of a deep green color; the fruit is about seven inches in length, straight, and generally angular; skin dark green, changing to yellow as the fruit approaches maturity, -- when fully ripe, it is reddish-brown, and is often reticulated about the insertion of the stem; prickles black; flesh white, somewhat seedy, but crisp, tender, and well-flavored. The Long Green Prickly is hardy and productive; makes a good pickle, if plucked while young; and is well deserving of cultivation. It differs from the London Long Green and the Long Green Turkey in its form, which is much thicker in proportion to its length; and also in the character of its flesh, which is more pulpy and seedy.¹²

Documentation

Buist 1853 Vick 1872,1875 Henderson 1875

Commercial Sources

The Garden Seed Inventory lists:

No Sources

Old Sturbridge Village uses Wyatt-Quarles¹³

Private Sources

The Seed Saver's Exchange 1987 Winter Yearbook lists: No Sources

Try Improved Long Green if no luck in obtaining Long Green. The Seed Saver's Exchange 1987 Winter Yearbook lists for Improved Long Green: Barbara Lund, P.O.Box 16, Blue Creek, Ohio 45616 Mary Ann Klein, National Colonial Farm, 3400 Bryan Pt. Rd., Accokeek, MD 20607

failure. Cucumbers also do not store well unless canned. These two drawbacks might be the reason that a great deal of emphasis was not put on this crop in the home garden.

"There is frequently a little bug, which preys upon the tender leaves; if so, soot and wood ashes sprinkled over them, while wet with the dew, will retard the progress of the depredator."⁷

"In most places where the cucumber is grown out of doors it is more or less troubled with the `Striped Bug'; but if only a few dozen hills are cultivated, it is not a very troublesome matter to pick them off, which is about the only sure way to get rid of them."⁸

The advice of planting extra seeds and thinning out the crop to three plants per hill as soon as the plants begin to run was frequently given by experts of the period.- $9 \ 10$ The practice was performed to insure that some plants survived insect damage. Frequently the striped cucumber beetle feeds on the leaves and transmits a bacterial wilt disease to the plant. This disease will destroy all or part of the vine. There is no recommended control other than prevention at this time.

Recommended Variety

Long Green Prickly (syn. Long Prickly, Early Long Green Prickly, Long Green) (See Figures 34-37)

The Long Green Prickly is one of the longgrowing sorts. When full grown, it will average

FOOTNOTES

¹Cheyney, Interviews, 15 February 1984, 26 March 1984.

²Cammock, Interview, 24 July 1984.

³Meriggi, Interview, 24 July 1984.

⁴Yetter, Interview, 25 July 1984.

⁵Burr, <u>Vegetables of America</u>, p. 158-59.

⁶Burr, <u>Vegetables of America</u>, p. 159.

⁷Buist, Kitchen Gardener, p. 52.

⁸Henderson, <u>Pleasure</u>, p. 197.

⁹Quinn, <u>Money</u>, p. 139.

¹⁰Parker and White, 1852, p. 90.

¹¹Quinn, Money, p. 140.

¹²Burr, <u>Vegetables of America</u>, p. 165.

¹³"Supply Sources for Plant Materials", Old Sturbridge Village, Sturbridge, MA, 4-5 May 1974, p. 2.
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LETTUCE Lactuca sativa

Cammock 7/24/1984; Cheyney 12/19/1983, 1/23/1984, 2/15/1984 3/26/1984; Kauss 2/17/1981; Hudson 8/1/1968; Leto 5/25/1983; Lindtner 3/6/1984; Meriggi 6/10/1084, 7/24/1984; Seitz 5/13/1984; Smith 2/15/1984; Yetter (2) 7/25/1984

If the number of varieties listed in catalogs of the period is any indication of the popularity of a vegetable, then lettuce was very popular in the mid-to-late nineteenth century. A quick-growing, hardy annual, leaf lettuce is tolerant of light frost, but tends to become bitter when exposed to hot, dry conditions. To take advantage of this quick-growing character and intolerance of heat a number of crops of leaf lettuce was grown throughout the season by two families.¹² All of the informants listed above recalled lettuce as a crop grown by their families. Lettuce is tolerant of partial shade which can provide cooler growing conditions during the heat of midsummer. This technique may have been used by families which had shady gardens.³ Most of the informants said that their families grew the leaf lettuce as opposed to the head.³ 4 5 6 7 8 9 One informant mentioned that her family grew both green head lettuce and green leaf lettuce.¹⁰ Another said that the head lettuce took too long

to mature.¹¹ C. Natalie Meriggi noted her family grew the loose headed Boston lettuce.¹² Two informants mentioned the fact that lettuce was grown in the family garden, but did not elaborate further.¹³ ¹⁴ The Kauss' recalled Sunday's evening meal or supper being composed of lettuce, tomato, cold meat and perhaps a vegetable.¹⁵

Lettuce is a relatively easy vegetable to grow. It occupies little space and matures quickly. While neither a basic staple nor a storable crop, lettuce was included in many gardens near the powderyards.

Culture

Lettuce is tolerant of light frost and can be seeded at two inch intervals as soon as the ground is workable. Plant the seed one quarter of an inch deep in moist, well-manured soil worked fine in drills ten to fifteen inches apart. Thin the plants to the same distance apart in rows for best results.¹⁶ One powdermen limed the soil with the same lime that he used for whitewashing before planting each of several crops of lettuce per season.¹⁷ Thin looseleaf lettuce plants to four to six inches apart and keep well hand weeded throughout the term of the crop.¹⁸ Water during dry weather.¹⁹

One informant's family grew a little "patch" of green leaf lettuce among the flowers adjacent to the house. She

said that it didn't take much room and didn't last long, suggesting that it was not much bother, nor was it reseeded during the season.²⁰ Another informant recalled that the lettuce beds were planted on the side of the garden located closest to the house.²¹ For convenience, many times frequently used crops are located closest to the home. Several informants indicated that leaf lettuce was planted in a square, 'bed' or 'patch' rather than in a row or drill.²² ²³ ²⁴ Mrs. Meriggi recalled that her family's head lettuce was broadcast and then transplanted to a row when the seedlings began to crowd one another.²⁵ Harvest &

Storage

Pick the outer leaves at the base of the stalk or cut the entire plant just above the base of the leaves and the plant will resprout. Pull the plant up by the roots when it begins to bolt. Replant with another crop in a shaded spot for summer use.

Pests & Diseases

Grazing rabbits, groundhogs, deer, slugs, and rot from overcrowding may affect lettuce in this area.²⁵ For the most part lettuce is relatively disease-free. Hot weather causes the plants to bolt to seed and become bitter. Reseeding the crop can alleviate this problem, especially if the reseeded crop is located in partial shade during the heat of the summer.

Buist recommended a dusting of soot or air-slacked lime for slug control.²⁶ Fencing would help alleviate the four-legged animal pest problem.

Recommended Variety -- Leaf

Early Curled Simpson (synonym Curled Simpson)

"One of the best curled varieties now cultivated."27

"Very sweet, crinkley leaves form tight center clusters, pale yellowish green, long time fav. or its great taste, hardy and quick growing, slow bolting."²⁸

Documentation

Parker and White 1852 Landreth 1884 Burpee 1883

Commercial Sources

The Garden Seed Inventory lists:

Asgrow Seed Co. Archias' Arco Seed Co. Henry Field Seed and Nursery Landreth Seed Co. Oral Ledden and Sons Earl May Seed and Nursery Co. McFayden Seeds Northrup King Co. Roswell Seed Co. Royal Seeds, Inc. Crookham Co. Dorsing Seeds, Inc. Eckroat Seed Co. Chas. H. Lilly Co. Porter-Walton

Private Sources

The Seed Saver's Exchange 1987 Winter Yearbook lists: No Sources

Longwood Program

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FOOTNOTES

¹Cheyney, Interviews, 23 January 1984, 15 February 1984.

²Meriggi, Interview, 24 July 1984. ³Chevney, Interview, 26 March 1984. ⁴Cammock, Interview, 24 July 1984. ⁵Cheyney, Interview, 23 January 1984. ⁶Meriggi, Interview, 24 July 1984. ⁷Seitz, Interview, 13 May 1984. ⁸Smith, Questionnaire, 15 February 1984. ⁹Yetter, Interview, 25 July 1984. ¹⁰Smith, Questionnaire, 15 February 1984. ¹¹Cammock, Interview, 24 July 1984. ¹²Meriggi, Interview, 24 July 1984. ¹³Hudson, Interview, 1 August 1968. ¹⁴Leto, Interview, 25 May 1983. ¹⁵Kauss, Interview, 17 February 1981. ¹⁶Burr, Vegetables of America, p. 345. ¹⁷Cheyney, Interview, 15 February 1984.

¹⁸Duane Newcomb, <u>The Complete Vegetable Gardener's</u> <u>Sourcebook</u>, New York: Avon Books, 1980, p. 156.

¹⁹Parker and White, 1852, p. 92. ²⁰Yetter, Interview, 25 July 1984. ²¹Cheyney, Interview, 23 January 1984. ²²Cheyney, Interview, 23 January 1984. ²³Meriggi, Interview, 24 July 1984. 24Yetter, Interview, 25 July 1984. 25Meriggi, Interview, 24 July 1984. 26Lindtner, Interview, 11 April 1984. 27Buist, <u>Kitchen Gardener</u>, p. 6-7. 28Quinn, <u>Money</u>, p. 161. 29Whealy, <u>Inventory</u>, p. 227.

ONION Allium cepa

Beacom 5/29/1967; Bruno 3/12/1981; Cammock 7/24/1984; Cheyney 12/19/1983, 1/23/1984, 3/26/1984; Kauss 2/17/1981; Leto 5/25/1983; Meriggi 6/10/1984, 6/20/1984, 7/24/1984; Smith 2/15/1984; Yetter 7/25/1984

"The Onion is a half-hardy biennial plant."¹ Onions were fairly popular among the families of the powderworkers judging from the responses of the informants. All informants listed above recalled this vegetable as part of their family's garden. Catherine Cheyney remembered her family growing plenty of onions. She did not care for them however, and her mother spoiled her by cooking her food separately from that of the rest of the family.² Onions were eaten both as scallions^{3 4 5} and as mature bulbs. Miss Cheyney recalled the onions grown by her family as round, brown-skinned bulbs that peeled easily.⁶

Culture

The onion can be grown either from seed or sets which are small bulbs that were planted as seed and harvested and dried the previous year. For a main crop seeding is preferable for demonstration purposes. "Onions raised from

seed must be sown as early in the season as possible or else they will not be good for storage."⁷

The Onion requires a light, loamy, mellow soil; and, unlike most kinds of garden or field vegetables, succeeds well when cultivated on the same land for successive years. Previous to sowing, the ground should be thoroughly spaded over or deeply ploughed, and the surface made smooth and even. The seed should be sown as early in spring as the soil may be in good working condition. Sow in drills fourteen inches apart, and half an inch in depth. When the plants are three or four inches high, thin them to two inches asunder; and, in the process of culture, be careful not to stir the soil too deeply, or to collect it about the growing bulbs.⁸

Miss Cheyney referred to the "onion patch".⁹ The spacing suggested in the above quote seems to support this. Onion seed was planted by one powderworker's family.¹⁰ James Cammock recalled purchasing started onions from the farmers on King Street in Wilmington.¹¹ Blanche Yetter recalled the planting of onion sets on St. Patrick's Day, March 17th every year.¹²

When raising onions from sets, plant them as soon as the ground is workable in the spring. Plant them three to four inches apart in rows spaced at one inch intervals. From sets, scallions will be ready for harvest in June, ripened onions in July.¹³

The shallow root systems of the seedlings do not react favorably to disturbance so careful hand weeding close to the plant is necessary after the bulbs begin to form.¹⁴ A constant moisture supply will prevent the crop from gaining an unpleasantly strong flavor. The bulbs naturally develop partially above ground and so the tendency to hill the exposed bulbs should be resisted. Any seed stalks that appear should be snapped off by hand as they appear to insure that all of the strength of the plant goes into the formation of the bulb. Some people accomplish this and insure that the bulbs ripen by the end of the season by bending the tops of the onions over where the leaves enter the bulb. This procedure effectively breaks the seed stalk and stops the growth of the plant by signaling the bulb to begin to harden off to survive the winter.

In wet seasons, and often from late sowings, onions are apt to grow thick-necked; in such cases they should be gently bent down with the head of a wooden rake, which will check their rapid growth, and cause them to come sooner to maturity.¹⁵

Harvest & Storage

The onions will ripen in August, or early in September and their full maturity will be indicated by the perfect decay of the leaves, or tops. The bulbs may be drawn from the drills by the hand, or by the use of a common garden rake. After being exposed for a few days to the sun for drying, they will be ready for storing or the market.¹⁶

The bulbs were left to dry in the garden.¹⁷ Collect them when completely dry, cut off all but one inch of the top growth, and store in burlap sacks. "The essentials for preservation of the bulbs are a low temperature, freedom from frost, dryness, and thorough ventilation."¹⁸ One powdermill worker allowed the onions to dry in the garden after they had been pulled and then he stored his winter onion crop in the mesh bags that were used to hold corn on the cob for horse feed. The bags were then stored on the earthen floor of the basement.¹⁹ Miss Cheyney also recalled that her family also stored onions in a pit in the garden covered with soil. They kept until Thanksgiving or Christmas before they would be ruined by freezing temperatures.²⁰ Another child of a powderworker also stored onions in the basement.²¹ Thick necked onions do not store well and should be separated from the main crop and used as soon as possible. In general, the more pungent onions prove to be better for winter storage as they have a lesser water content.²²

American onions are quite different from those of Europe; they are generally smaller, with a finer neck, bulb much more freely, are stronger, less sweet, and much better keepers.²³

Pests & Diseases

Onions are seldom bothered by insect and diseases but are sometimes affected by root maggots. Thrips and rot of the neck and bulbs are also potential problems. Miss Cheyney did not remember her family ever having trouble with the onion crop.²⁴

Buist advocated the spreading of soot over the ground, either before or after the crop was planted for soil enrichment.²⁵ This practice may also serve to deter the onion maggot. Insuring that the bulbs harden off properly can avoid problems with rot in storage.

Recommended Variety

Danver's Yellow (See Figures 38-41)

In 1871 Quinn recommended the Yellow Danvers Onion as one of the best varieties for use in the home garden.²⁶

This comparatively recent variety was obtained by selection from the Common Yellow. It is somewhat above medium size, and inclined to globular in its form. Average bulbs measure from three inches in diameter, and two inches and three fourths in depth. The skin is yellowish-brown, but becomes darker by age, and greenish brown if long exposed to the sun; the flesh is similar to that of the Yellow, -- white, sugary, comparatively mild, and well flavored.²⁷

A French horticulturist of the period described the Danver's Yellow Onion as follows:

Bulb spherical or slightly flattened, of a coppery-yellow colour, a little more reddish tinted than that of the Brown Spanish or Portugal Onion, usually from 2 2/5 to 3 1/5 inches in diameter, and nearly the same in thickness; coats numerous and closely set; neck very fine, as is also the disc or plate from which the roots issue; leaves medium sized, and of a clear-green colour. This is an excellent early variety and keeps remarkably well. It is as well adapted for field culture as for the kitchen garden, but should always be sown in the spring. When sown in autumn, we have always found it to run to seed in the following spring without bulbing to any extent. It is an American variety, and when first introduced into France (about 1850) was quite spherical in shape, but now it grows almost always more or less flattened, not only in European gardens, but also in its native country.²⁸

Burpee 1883 Vick 1875

Landreth 1884

Commercial Sources

The Garden Seed Inventory lists under Yellow Globe Danvers:

Allen, Sterling and Lothrop Alberta Nurseries & Seeds Ltd. Archias' Buckerfields William Dam Seeds, Ltd De Giorgi Co, Inc. Dominion Seed House Early's Farm and Garden Center Farmer Seed and Nursery Co. Fredonia Seed Co. Island Seed Co., Inc. Johnny's Selected Seeds Landreth Seed Co. Lindenberg Seeds Limited Mellinger's Inc. McFayden Seeds Meyer Seed Co. Old Seed Co.

P.L. Rohrer & Bro., Sanctuary Seeds Seed Center Ltd. Geo. Tait & Sons, Inc. H.K. Webster Co. Good Seed Co. Arco Seed Co. Botzum Seed Co. Chas. H. Lilly Co. Wetsel Seed Co. Saunders Seed Co. Tregunno Seeds Ltd. Geo. Tait & Sons, Ltd. Chas. C. Hart Seed Co. Letherman's Inc. The Ohio Seed Co. Tillinghast Seed Co.

Private Sources

The Seed Saver's Exchange 1987 Winter Yearbook lists:

No Sources

FOOTNOTES

¹Burr, Vegetables of America, p. 120.

²Cheyney, Interview, 26 March 1984.

³Cammock, Interview, 24 July 1984.

⁴Kauss, Interview, 17 February 1981.

⁵Meriggi, Interviews, 10 June 1984, 20 June 1984.

⁶Cheyney, Interview, 26 March 1984.

⁷Henderson, <u>Pleasure</u>, p. 208.

⁸Burr, Vegetables of America, p. 121.

⁹Cheyney, Interviews, 19 December 1983, 23 January 1984.

¹⁰Cheyney, Interview, 23 January 1984.

¹¹Cammock, Interview, 24 July 1984.

¹²Yetter, Interview, 25 July 1984.

¹³Henderson, Pleasure, p. 208.

¹⁴Thomas Bridgeman, <u>The American Gardener's Assistant</u>, Philadelphia: Porter and Coates, 1866, p. 103.

¹⁵Henderson, <u>Pleasure</u>, p. 208.

¹⁶Burr, Vegetables of America, p. 121.

¹⁷Cheyney, Interview, 26 March 1984.

¹⁸Burr, Vegetables of America, p. 121.

¹⁹Cheyney, Interview, 26 March 1984.

²⁰Cheyney, Interview, 15 February 1984.

²¹Kauss, Interview, 17 February 1981.

²²Griffith, <u>Vegetable Garden Handbook</u>, p. 78.

²³Vick's, 1875, p. 94.

²⁴Cheyney, Interview, 23 January 1984.

²⁵Buist, <u>Kitchen Gardener</u>, p. 87.

²⁶Quinn, <u>Money</u>, p. 265.

²⁷Burr, <u>Vegetables of America</u>, p. 123.

28Vilmorin-Andrieux, The Vegetable Garden, p. 364-65.

PARSLEY Petroselinum crispum

Bruno 3/12/1981; Cheyney 1/29/1981, 12/19/1983, 1/23/1984, 2/15/1984, 3/26/1984; Leto 5/25/1983; Meriggi 6/10/1984, 6/20/1984, 7/24/1984; Rowe 8/12/1964; Seitz 5/13/1984; Smith 2/15/1984

Parsley is a slow-growing, half-hardy biennial herb and a very important crop in the vegetable gardens of the powdermen.¹ ² This herb was planted in the garden among the vegetables³ or on the south side of the house and protected by a cold frame.⁴ It was mentioned frequently and with emphasis by the informants. They also described in detail the efforts that were taken to protect it during the winter.⁵ 6 7 8

Burr discussed how through careful cultivation and repeated transplanting the best curled parsley could be maintained, thereby suggesting that curled parsley was the preferred type. He also stated that parsley was used as a garnish and in soups.⁹

The curled variety only should be cultivated. It is more beautiful as a garnish than the plain and requires very little more attention to keep it pure... Should any of the plain leaves appear, root it out.¹⁰

One informant of Italian heritage said that her mother grew a relatively large patch of both Italian flat-leaved and curled-leaf parsley. Her mother made a relish consisting of parsley, green peppers and anchovies chopped fine into which she would dip vinegar-soaked bread.¹¹ Mr. Bruno recalled that his family grew only the flat-leaf type.¹² Catherine Cheyney spoke of the beauty of the parsley in the vegetable garden which suggests that it was the curled-leaf type that her family grew.¹³ In a later interview she recalled that her family grew the "low, curled" or more "decorative" type of parsley.¹⁴ Many people today use the Italian flat-leaf parsley for its superior flavor and the curled-leaf type as a garnish because of its visual appeal.

On the basis of the evidence, it would be appropriate to include either the curled-leaf or the flat-leaf Italian parsley or both planted in a 'patch' within the garden. For easy access locate the planting on the border closest to the house and near the pit used for root crop storage. Parsley needs some protection to survive over the winter.

Culture

Parsley seed germinates slowly. Normally the germination process takes from four to five weeks.¹⁵ Seedsman David Landreth recommended sowing the seed very early in the spring as soon as the soil was workable. His technique to

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hasten the germination process is to either soak the seed in warm water for several hours prior to sowing, or to mix the seed with damp soil and sow it as soon as the seeds show signs of life. He suggested covering the seed scarcely at all for best growth.¹⁶ Two other seedsmen of the period recommended an early April sowing preceded by a soaking of the seed in warm water.¹⁷ ¹⁸ Another seedsman recommended sowing the seed in one half inch drills in soil enriched with rotted manure. When the seedlings reached three to four inches in height, he instructed the gardener to thin them to six inches apart and keep well weeded.¹⁹ Twelve plants are sufficient for a family.²⁰ I have found no evidence to indicate that the powdermen soaked their parsley seed prior to planting as was commonly advised.

Four informants mentioned that the parsley their families grew was grown in a 'patch' rather than in drills or rows.²¹ ²² ²³ ²⁴ This method of broadcasting the plants over a small contained area in the garden makes sense if the plants are to be mulched for winter protection.

Harvest & Storage

Buist recommended that one third of the plants be cut down at a time to have young tender shoots constantly.²⁵ Miss Cheyney reinforced this idea by recalling that her family kept their parsley plants trimmed to prevent the leaves from becoming too tough.²⁶ This indicates that parsley was consumed rather than used purely as a garnish.

Parsley was protected for early winter use by several One family placed three boards upright and families. lengthwise and fastened the ends together to form a trianale. They placed this wooden triangle around the parsley They then filled the interior space with fallen patch. leaves. Oak leaves were not used however, because of their large size.²⁷ Another informant mentioned that a patch of something was covered for winter use.²⁸ ²⁹ Margaret Seitz told of the parsley patch being planted in a cold frame next to peppermint on the south side of the house. The frame was covered with sash during inclement weather.³⁰

To have fresh, green parsley, at all seasons, should be the aim and ambition of every gardener. ...keep it only from severe frost, and it will grow the whole winter. For this object, select a warm spot of ground, as directed above; cut them all over in September, surround the bed early in November with boards... procure some branches of spruce, pine or cedar, and cover the bed during December, January, and February. It will grow tolerably well under such protection.³¹

In the spring pull the plants and discard them, for, as with any biennial during its second season, the plant uses most of its energy producing seed at the expense of the leaves.

Parsley was also dried in the sun and saved for winter use.³² The practice was recommended by Buist. He directed gardeners to rub the dried leaves fine between the hands and store the flakes in a bottle for winter use.³³

Pests & Diseases

Carrot Weevil and Carrot Rust Fly may be troublesome. Destroy or dispose of the plant debris and rotate the location of the crop from year to year to control the carrot weevil.³⁴ Fencing will deter rabbits and ground hogs from destroying the foliage.

Recommended Variety

Emerald or Dwarf Extra Curled (syn. Dwarf Curled, Curled Parsley, Sutton's Dwarf Curled, Usher's Dwarf Curled) (See Figures 43,44)

"The Dwarf Curled is the best kind for the garden."³⁵ Miss Cheyney recalled her family growing a "low, curled" form of parsley.³⁶

A fine, dwarfish, curled variety, long cultivated in England. In some gardens, it is grown in such perfection as to resemble a tuft of finely curled, green moss.

It is hardy, and slow in running to seed, but liable to degenerate, as it constantly tends to increase in size and to become less curled. 37

"Leaves tender, beautifully crimped, handsome bright green color, very ornamental."³⁸

A French seedsman described the variety Double Dwarf-Curled as follows:

A sub-variety of Curled Parsley, remarkable for the fineness of the cutting and the great number of the divisions of the leaves. The segments touch one another, and give the leaf the appearance of a piece of very dense Moss. In this form the leaf-stalks are exceedingly short, so that the leaves almost lie upon the ground, forming a very low, thick tuft. This is the best Parsley of all to use as "greenery" for decorative purposes, and for garnishing dishes. It is also quite as aromatic as the other kinds.³⁹

Documentation

Burpee 1883

Dreer 1872

Commercial Sources

The Garden Seed Inventory lists:

W. Atlee Burpee Co.Nichols Garden NurseryGarden Magic Seed Co.Germania Seed Co.Mountain Valley Seed & NurseryGermania Seed Co.

Private Sources

The Seed Saver's Exchange 1987 Winter Yearbook lists:

No Sources

Recommended Variety

Plain or Single (syn. Common, Italian) (See Figure 45)

Two informants spoke of their family growing the flat-leaf type of parsley in their home garden.⁴⁰ 41

The leaves of this sort are plain, or not curled; and the plant produces them in greater quantity than the curled sorts. It is also somewhat hardier.

For many years, it was the principal variety grown in the gardens of this country; but has now given place to the curled sorts, which if not of better flavor, are generally preferred, on account of their superior excellence for garnishing.⁴²

"Dark green, with plain leaves; very hardy."43

Documentation

Burpee 1883

Landreth 1876,1884

Commercial Sources

The Garden Seed Inventory lists:

"Vigorous 12" erect plants, large plain flat-not-curled glossy dark-green leaves, long stems, more flavor than the curled types, the preferred parsley in Europe."⁴⁴

Herb Gathering, Inc. Arco Seed Co. Dr. Yoo Farm Ferry-Morse Seed Co. Siegers Seed Co. Good Seed Co. Garden City Seeds H.G. German Seeds, Inc. Fred C. Gloeckner & Co. Chas. C. Hart Seed Co. Johnny's Selected Seeds Landreth Seed Co. Oral Ledden & Sons Long Island Seed and Plant Livingston Seed Co. Midwest Seed Growers Meyer Seed Co. Nichol's Garden Nursery Northrup King Co. Olds Seed Co. Geo. W. Park Seed Co. W.H. Perron Co. Ltd.

Southern Exposure Seed Exchange Terretorial Seed Co. Thompson & Morgan Seed Co. Otis Twilley Seed Co. Vaughn's Seed Co. J.L. Hudson Seedsman Abbott & Cobb A.L. Castle, Inc. Bonavista Botzum Seed Co. Bunch's Crosman Seed Corp. Dorsing Seeds Inc. High Altitude Gardens Holmes Seed Co. Living Tree Centre Lockhart Seeds, Inc. Shepherd's Garden Seeds Standard Seed Co. Swedesboro Seed Co.

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Rawlinson Garden Seed Otto Richter & Sons Ltd. J.B. Rice Jr., Inc. Martin Rispens & Sons Rocky Mountain Seed Co. Seeds Blum Wetsel Seed Co., Inc. Saunders Seed Co., Inc. Kilgore Seed Co., Inc. Le Jardin du Gourmet Ohio Seed Co., Inc. Petroseed Co.

Private Sources

The Seed Saver's Exchange 1987 Winter Yearbook lists under Italian Flat-Leaf:

Lee Stafford 1547 W. Flower Circle N., Phoenix, AZ 85015 Michelle Carratu, 505 Timmons St., Nashville, TN 37211

FOOTNOTES

¹Leto, Interview, 25 May 1983.

²Smith, Questionnaire, 15 February 1984. ³Cheyney, Interview, 23 January 1984. ⁴Seitz, Interview, 13 May 1984. ⁵Chevney, Interview, 26 March 1984. ⁶Leto, Interview, 25 May 1983. ⁷Seitz, Interview, 13 May 1984. ⁸Smith, Questionnaire, 15 February 1984. ⁹Burr, Vegetables of America, p. 416-17. ¹⁰Buist, <u>Kitchen Gardener</u>, p. 89-90. ¹¹Meriggi, Interview, 24 July 1984. ¹²Bruno, Interview, 12 March 1981. ¹³Cheyney, Interview, 23 January 1984. ¹⁴Cheyney, Interview, 26 March 1984. ¹⁵Burr, <u>Vegetables of America</u>, p. 415-16. ¹⁶Landreth's Rural Register and Almanac, Philadelphia, 1884, p. 69. ¹⁷Dreer's, 1872, p. 21. ¹⁸Vick's, 1872, p. 116. ¹⁹Buist, Kitchen Gardener, p. 89. ²⁰Griffith, Vegetable Garden Handbook, p. 80. ²¹Cheyney, Interview, 19 December 1983. ²²Leto, Interview, 25 May 1983. ²³Meriggi, Interview, 24 July 1984.

²⁴Interview with Aloysius Rowe, Eleutherian Mills Hagley Foundation Oral History File, Greenville, DE, 12 August 1968.

²⁵Buist, Kitchen Gardener, p. 89.

²⁶Cheyney, Interview, 26 March 1984. ²⁷Cheyney, Interview, 15 February 1984. ²⁸Cheyney, Interview, 19 December 1983. ²⁹Leto, Interview, 25 May 1983. ³⁰Seitz, Interview, 13 May 1984. ³¹Buist, <u>Kitchen Gardener</u>, p. 90. ³²Leto, Interview, 25 May 1984. ³³Buist, Kitchen Gardener p. 89. ³⁴Boys, <u>Guidelines</u>, p. 6. ³⁵Quinn, <u>Money</u>, p. 190. ³⁶Cheyney, Interview, 26 March 1984. ³⁷Burr, Vegetables of America, p. 417. ³⁸Johnson and Stokes Garden and Farm Manual, Philadelphia, 1902, p. 56. ³⁹Vilmorin-Andrieux, <u>The Vegetable Garden</u>, p. 380-81. ⁴⁰Bruno, Interview, 12 March 1981. ⁴¹Meriggi, Interview, 20 June 1984. ⁴²Burr, <u>Vegetables of America</u>, p. 417-18. ⁴³Johnson and Stokes, 1902, p. 56. ⁴⁴Whealy, Inventory, p. 280.

PEA Pisum sativum var. sativum

Cammock 7/24/1984; Cheyney 1/23/1984, 2/15/1984, 3/26/1984; Kauss 2/17/1981; Meriggi 6/20/1984, 7/24/1984; Seitz 2/15-/1984; Smith 2/15/1984; Yetter 7/25/1984

The garden pea is a hardy, cool weather vining vegetable that climbs by tendrils and varies in height from dwarf to tall. Shelled peas, eaten in both fresh and dry form, were grown by the powdermen.¹ ² ³ ⁴ The newer dwarf or bush types were also grown.⁵ Two informants recalled the tall, vining types of peas being grown in home vegetable gardens.⁶ ⁷ The vining types were very commonly listed in the seed catalogs of the period and were the common type before the dwarfs were introduced. Fresh peas do not seem to be important as a crop to the powderman's family. Two informants reported varying success with their family's attempts at cultivating peas.⁸ ⁹

Peas were remembered as a sweet, delicious vegetable but they were not very productive recalled one informant. "Some people put a few peas in, but they weren't a very good crop as only one helping was had from a planting." This many times is true because the onset of hot weather causes the cessation of pod production before the vines reach

maturity. One informant remembered not even bothering at all to grow peas in his family's garden.¹¹

Culture

Advice on pea culture given by seedsmen during the mid-nineteenth century goes as follows:

The pea thrives best on light, loamy soil, the very early and dwarf sorts demand rich ground. Sow in drills, which may be drawn single, or two nearly together. When the plants are up a few inches, hoe and draw the earth to the stems, and when they begin to vine, rod the tall varieties.¹²

Sow as soon in spring as the frost is out, and the ground can be put in order; and afterwards at intervals of about ten days until midsummer.

Peas require good ground, enriched with well-rotted manure. They are usually sown in double drills, that is two drills six inches apart; by doing which, one row of sticks will serve for two rows of peas, the space between the double drills may be two and a half feet. Sow the early sorts rather thick, and they will withstand dry weather and yield better than those sown thin.¹³

A fair average depth for covering the seed is two and a half or three inches though some practice planting four or five inches deep, which is said to be a preventative against the premature decay of the vines near the roots. "...all of the sorts not over two feet in height may be successfully grown without sticking..."¹⁴

James Vick recommended planting at a depth of four inches.¹⁵ Burr also recommended ridging up the soil close to the stems when the plants reach five inches in height. He explained that this is for the support of the plants. Ridge on both sides if peas are to be staked, and only on the outside if they are of a dwarf variety.¹⁶ "This practice performed when the plants are two inches high and once again as they grow also steadies the vines in the wind."¹⁷ A modern day horticulturist has another reason for hilling up the seedlings as they grow. He says that this practice keeps the roots cooler for peas do not perform well in the heat.¹⁸

Still another authority of the day recommended that the seed be sown thickly at one to two inches apart and one inch deep in a double drill six to twelve inches apart.¹⁹

The key to a successful pea crop is planting early enough to mature these cool weather plants before the heat of the summer and yet sufficiently late enough to prevent the seed from rotting under the cold, wet conditions of spring.

"The large, fine, wrinkled varieties (Champion of England) are not as hardy as the small sorts, and if planted very early, should have a dry soil, or they are liable to rot. It is best to sow the earliest Peas just as soon as possible."²⁰

Many authorities of the period recommended using pea brush or twiggy branches for staking the pea crop. None of the informants recalled such support measures. Any support given to vegetables was in the form of straight, twigless branches or poles.²¹ Miss Cheyney recalled that her family always planted the dwarf or bush type of peas.²² Mrs. Yetter said that they allowed their pea vines to "flop on the ground" unless they put a little branch under them.²³ This indicates that the peas they grew were most likely of the bush variety. However Buist comments that the general method of planting early peas was to sow them in:

"... drills two inches deep, and the seeds about one inch apart in the drills and two and a ha!f feet from drill to drill. If stakes are scarce, two rows of Peas can be sown six inches apart, and then two rows the same way, four feet between each pair of rows.²⁴

Miss Cheyney's family sowed two rows in March.²⁵ Mrs. Yetter's family sowed the peas on March 17th. They purchased seed rather than saved it from the previous season's crop.²⁵

The short season for pea production in the Brandywine Valley may be a reason for the disappointing results recalled by some of the informants.

Harvest & Storage

Pick peas daily as pods fill. Leaving pods to yellow on the vine or tearing pods from the vines in a rough manner may cause vines to cease production.²⁶

The crop should be gathered as it becomes fit for use. If even a few of the pods begin to ripen, young pods will not only cease to form, but those partly advanced will cease to enlarge.²⁷ This may be yet another reason that the informants remembered that their families had varying success with the pea crop. One recalled that her family saved the pea seed from year to year, surmising that it was either difficult to come by or expensive.²⁸ Mrs. Meriggi's family dried and saved their peas also.²⁹

One informant recalled peas being canned for winter use.³⁰ Another remembered using dried peas during the winter.³¹

After the plants stop producing, clear the area of the vines and replant with a later crop such as turnips or cabbage. Miss Cheyney recalled that the ground where the peas were grown was always planted with another crop after all the pods were harvested.³²

Pests & Diseases

Peas are relatively pest-free. Some of their troubles include seed rot, the development of powdery mildew on plants in the heat of the summer and the cessation of production if the pods are not harvested regularly. Aphids can cause some damage but not enough to warrant control measures. Rabbits and groundhogs should be kept out of the garden with a fence. Recommended Variety -- Early, Dwarf, Wrinkled-seed Type

Little Gem (See Figure 46)

"McLean's Little Gem -- Truly a gem. Unsurpassed, productive, wrinkled, and of delicious flavor. Matures in fifty four days; grows twelve to fourteen inches high; no sticks required."³³

"The leading dwarfs are Tom Thumb, early but round, and Little Gem, productive and of the best quality.³⁴

Becker notes that 'Little Gem' was developed in 1862

and it was the first good dwarf wrinkled seed pea.³⁵ Quinn lists McLean's Little Gem as a superior quality early pea.³⁶

Plants of remarkably low growth; seldom much exceeding nine inches in height, short and branching; pods single, rarely in pairs, two inches and a half in length, half an inch broad, containing five or six peas, which are cream yellow, and measure about a fourth of an inch in diameter.

In the color of its foliage, its height and general habit, the variety is very distinct, and readily distinguishable from all other kinds. It is early, of good quality, and, the height of the plant considered, yields abundantly. It may be cultivated in rows ten inches apart."³⁷

French seedsman MM. Vilmorin-Andrieux described the

variety as follows:

A very dwarf kind, 12 to 16 inches high, vigorous growing, and usually very branching. The pods are rather small, but broad, straight, and well filled. The peas, when ripe, are pale coloured, bluish, and wrinkled.³⁸

Documentation

Landreth 1876

Vick's 1872,1880

Commercial Sources

The Garden Seed Inventory lists:

J.P. Snapp & Sons T & T Seeds, Inc.

Private Sources

The Seed Saver's Exchange 1987 Winter Yearbook lists: Glenn Drowns, RR 1, Box 37, Calamus, Iowa 52729

Recommended Variety-- Tall, Wrinkled Seed General Crop

Champion of England (See Figure 47)

Becker states that this variety was brought to the United States from England in 1849 and by 1900 was very popular.³⁹ Judging from the literature it seemed to have gained popularity even earlier.

This, so far, is, by general consent, acknowledged as the best of the late varieties. It is tall growing, four feet in height, requiring to be staked up; pod and peas of the largest size. 40

Quinn noted that it is an "old and well-known Pea, is without doubt the best late variety grown." He also stated that the vines grew three feet high and required staking.⁴¹

(Fairbeard's Champion of England) Plants of strong and luxuriant habit of growth, with a stem from five to six feet in height, which is often undivided but also frequently branching. The laterals are produced within about eighteen inches of the ground, and sometimes assume a vigorous growth, and attain as great a height as the main stem. They produce pods at the first joint above the lateral, and are continued at every succeeding joint to the greatest extremity of the plant. The pods are generally single, but frequently in pairs, about three inches and a half long, slightly curved, and terminate abruptly at the point; the surface is quite smooth, and the color light green till maturity, when they become paler and shrivelled. They contain six or seven quite large peas, which are closely packed together and compressed-The ripe seed is wrinkled, and of pale olive-areen.

Sown the 1st of May, the plants were in flower June 25th, and the pods were gathered for use the 12th of July.

This variety was originated in England, by Mr. William Fairbeard, in 1843, and, with the Early Surprise, came out of the same pod, -- the produce of the plant found in a crop of the Dwarf White Knight's Marrows, to which class it properly belongs. It is, no doubt, one of the most valuable acquisitions which have been obtained for many years, being remarkably tender and sugary, and, in all respects, of first-rate excellence. The rapid progress of its popularity, and its universal cultivation, are, however, the best indications of its superiority. The variety was introduced into this country soon after it was originated..."⁴²

French seedsman Vilmorin-Andrieux described Champion of

England as follows:

A climbing Pea, of medium height, seldom exceeding from 4 to 5 ft. Leaves pale glaucous green; stem rather stout, whitish, unbranched up to about the twelth joint, and seldom producing pods bleow the fifteenth or sixteenth joint. The intermediate joints send out two, three, or four branches, which sometimes become nearly as large as the main stem. Flowers rather small than large, often solitary, but generally in pairs, and sometimes, but very exceptionally, three together; pods medium sized, 2 or 3 inches long, the lower ones sometimes containing only three or four peas, while some of the upper ones have as many as nine. The peas are small, very much wrinkled, and of a pale bluish-green colour. ... The main stem carries six or seven tiers of pods, and the branches from two to five tiers.⁴³

A variety possessing merit of high order. Superior to the common Marrowfat, which it resembles in strength of vine; and general habit; wrinkled and very sugary; requires sticking; ripens for table in seventy days from germination."⁴⁴

Documentation

Burpee 1883	Hende	rson	1875
Landreth 1876	Vick	1872,	1880

Commercial Sources

The Garden Seed Inventory lists:

No Sources

Old Sturbridge Village lists Abbott & Cobb as their source.-

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Private Sources

The Seed Saver's Exchange 1987 Yearbook Lists:

- T.E. Walsh, 2700 Tucker Station Rd., Jeffersontown, Kentucky 42721
- Jim Tjepkema, Box 23, Clarks Grove, Minnesota 56016
- Tom Woods, Oliver Kelley Farm, 15788 Kelley Farm Road, Elk River, Minnesota 55330
- Old Bethpage Village, Round Swamp Road, Bethpage, Long Island, NY 11804 (516) 420-5280 grew this variety in a display garden in 1983.
FOOTNOTES

¹Cheyney, Interview 26 March 1984.

²Kauss, Interview, 17 February 1981.

³Questionnaire response by Dr. Margaret Seitz, Eleutherian Mills Hagley Foundation Oral History File, Greenville, DE, 15 February 1984.

⁴Smith, Questionnaire, 15 February 1984.

⁵Cheyney, Interview, 23 January 1984.

⁶Cheyney 26 March 1984.

⁷Meriggi, Interview, 24 July 1984.

⁸Cheyney, Interviews, 23 January 1984, 15 February 1984, 26 March 1984.

⁹Yetter, Interview, 25 July 1984.

¹⁰Yetter, 25 July 1984.

¹¹Cammock, Interview, 24 July 1984.

¹²Landreth's Rural Register and Almanac, Philadelphia, 1884, p. 69.

¹³Parker and White, 1852, p. 94.

¹⁴Burr, <u>Vegetables of America</u>, p. 506.

¹⁵<u>Vick's</u>, 1872, p. 107.

¹⁶Burr, <u>Vegetables of America</u>, p. 506-07.

¹⁷Buist, <u>Kitchen Gardener</u>, p. 95.

¹⁸Organic Gardener's Complete Guide, 1982, p. 247.

¹⁹Buist, <u>Kitchen Gardener</u>, p. 96.

²⁰Vick's, 1880, p. 84.

²¹Cheyney, Interview, 15 February 1984.

²²Cheyney, Interview, 23 January 1984.

²³Yetter, Interview, 25 July 1984.

²⁴Buist, <u>Kitchen Gardener</u>, p. 96.

²⁵Cheyney, Interviews, 23 January 1984, 15 February 1984.

²⁶Organic Gardener's Complete Guide, 1982, p. 247.

²⁷Burr, <u>Vegetables of America</u>, p. 507.

²⁸Cheyney, Interview, 15 February 1984.

²⁹Meriggi, Interview, 24 July 1984.

³⁰Yetter, Interview, 25 July 1984.

³¹Meriggi, Interview, 24 July 1984.

³²Cheyney, Interview, 15 February 1984.

³³Burpee's, 1883, p. 33.

³⁴Henderson, Pleasure, p. 210.

³⁵Robert F. Becker, "Peas", Geneva, NY: New York State Experiment Station, p. 3.

³⁶Quinn, <u>Money</u>, p. 197.

³⁷Burr, Vegetables of America, p. 536-37.

³⁸Vilmorin-Andrieux, <u>The Vegetable Garden</u>, p. 433.

³⁹Becker, "Peas", p. 4.

⁴⁰Peter Henderson, <u>Gardening For Profit</u>, New York: Orange Judd Company, 1874, p. 223.

⁴¹Quinn, <u>Money</u>, p. 198.
⁴²Burr, <u>Vegetables of America</u>, p. 524-25.
⁴³Vilmorin-Andrieux, <u>The Vegetable Garden</u>, p. 415.
⁴⁴Landreth's, 1884, p. 70.

⁴⁵"Supply Sources for Plants", 1974, p. 2.

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PEPPER Capsicum annuum

Bruno 3/12/1981, 6/11/1984; Cammock 7/24/1984; Cheyney 1/29/1981, 12/19/1983, 1/23/1984; Fitzharris 5/5/1980, 6/6/1980; Meriggi 6/10/1984, 6/20/1984, 7/24/1984; Seitz 2/15/1984, 5/13/1984; Yetter 7/25/1984

Sweet and hot, red and green peppers, were cultivated by the powdermen.¹ ² According to two informants Italian families grew the red, hot pepper.³ ⁴ One family dried and crushed the fruits and put the flakes into shakers for use at meals.⁵ An Irish family looked upon hot peppers as a novelty crop. Their Italian neighbors...

"...had beautiful peppers. And I saw this red thing you know, and I thought it was like the peppers we always had, so I took the thing and put it in my mouth. Boy, I was really burning, yelling. I thought I was about to die."⁶

Sweet, bell peppers were grown and either picked and eaten green⁷ or left on the plant until they took on red color and a sweeter flavor.⁸ ⁹ ¹⁰ James Cammock recalled that he combined the sweet, red peppers, either raw or fried, with bread, butter and salt to make sandwiches.¹¹ They were also used in combination with parsley and anchovies by another Italian family to make a relish.¹² Peppers were grown and eaten in season by the powdermen's families, but as one informant relayed, sweet peppers were not used in cooking like they are today.¹³

Culture

Peppers do best in well-drained soil that is not too fertile. In fertile soil lush foliage is produced at the expense of fruit. The pepper is a long season plant and can be started early in flower pots on a sunny windowsill. Buist recommended that the seed be sown one half of an inch deep in a pot on a warm, sunny window in March or April. At three or four inches in height they would be ready to transplant in May or June in a permanent spot in the garden, one foot apart in the row and eighteen inches apart from row to row. He recommended that they be watered freely at the time of transplanting.¹⁴

Burr advised that a reasonable crop could be seeded directly into the garden.¹⁵

... the following simple method may be adopted for a small garden, and will afford an abundant supply of peppers for family use: When all danger of frost is past, and the soil is warm and settled, sow the seeds in the open ground, in drills three fourths of an inch deep, and fourteen inches apart; and, while young, thin out the plants to ten inches apart in the rows. Cultivate in the usual manner, and the crop will be fit for use early in September.¹⁶ Transplants may have been purchased, grown in a container on a sunny windowsill or started in a bed in a part of the garden that warmed early in the season. James Vick advised his customers to transplant seedlings to their permanent place in the garden when they reached three to four inches in height.¹⁷ One informant recalled having the task of watering the pepper transplants by dipping a ladle into a bucket of water.¹⁸

Harvest & Storage

Cut the pods from the plant with a sharp knife to avoid damaging this brittle plant. Harvest all pods prior to frost as peppers are very sensitive to freezing temperatures. No mention of storing peppers for winter use was made by any of the informants, although one person remembered that her aunt pickled peppers.¹⁹

Pests and Diseases

European Corn Borer, Damping Off, Blossom End Rot, Bacterial Leaf Spot, Anthracnose Fruit Rot, Mosaic Virus are all potential problems for peppers.²⁰ In general peppers are relatively pest free although they do run into cultural difficulties. At times they will appear to be standing still in their growth, but this is a normal pattern.²¹ Blossom drop can occur if the temperature dips below 65 degrees Fahrenheit.²² Peppers do not fruit well in soils with a high nitrogen level. It is my experience that they fruit more heavily in poorer soils.

Recommended Variety-- Sweet, Green Pepper

I am recommending only a sweet, green pepper variety, as the worker's garden at the Gibbons House is being interpreted as that of an Irish family. The Irish, according to the informants, would be less likely to grow the hot varieties of peppers.

Large, Sweet Bell (syn. Large Bell, Bull-nose, Large, Sweet Bullnose, Bell) (See Figures 48-510

Plant two feet and upwards in height, stocky and branching, the stem and branches often stained or clouded with purple; leaves large, on long stems, smaller, smoother, and less sharply pointed, than those of the Squash-pepper; flowers white, sometimes measuring nearly an inch and a half in diameter.

The pods, which are remarkably large, and often measure nearly four inches deep and three inches in diameter, are pendant, broadest at the stem, slightly tapering, and generally terminate in four obtuse, cone-like points. At maturity, the fruit changes to brilliant, glossy, coral red.

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The Bell-pepper is early, sweet and pleasant to the taste, and much less acrid or pungent than most of the other sorts. In many places, it is preferred to the Squash-pepper for pickling, not only because of its mildness, but for its thick, fleshy, and tender rind.

In open culture, sow in May, in drills sixteen inches apart, and thin the plants to twelve inches in the drills.²³

Large, Bell Pepper -- A plant of rather thickset growth, with largish leaves of a clear-green colour; branches short and stiff; flowers large, and often irregular in form; seed-vessels blunt and truncate, or, as it were, squared at the ends, and with four deep furrows and four corresponding prominent ridges along the sides; flesh rather thick; seeds comparatively few. This Pepper is entirely free from the acrid or burning pungency which characterizes some other kinds, its seed-vessels and their contents being of the mildest flavour. The variety of it which is most commonly grown produces seed-vessels about 2 inches in length and the same in diameter. This is a form that may be eaten as a vegetable, and a very pleasant addition it is, as the Italians cook it.²⁴

Documentation

Burpee 1880,1883 Parker and White 1852 Dreer 1872 Vick's 1872,1875,1880

Commercial Sources

The Garden Seed Inventory lists under "Bull Nose":

Abundant Life Seed Foundation De Giorgi Co., Inc. Good Seed Co. Chas. C. Hart Seed Co. Ernest Hardison Seed Co. Landreth Seed Co. Henry F. Michell Co. Redwood City Seed Co. McLaughlin's Seeds

Royal Seeds, Inc. Swedesboro Seed Co. The Ohio Seed Co. Eckroat Seed Co. Germania Seed Co. Wetsel Seed Co., Inc. Herbst Bros. Seedsmen, Inc.

Private Sources

The Seed Saver's Exchange 1987 Winter Yearbook lists:

No Sources

and the second

FOOTNOTES

¹Chevney, Interview, 19 December 1983. ²Seitz, Interview, 13 May 1984. ³Bruno, Interview, 12 March 1981. ⁴Cheyney, Interview, 23 January 1984. ⁵Bruno, Interview, 12 March 1981. ⁶Cheyney, Interview, 19 December 1983. ⁷Cheyney, Interview, 23 January 1984. ⁸Cammock, Interview, 24 July 1984. ⁹Cheyney, Interview, 19 December 1983. ¹⁰Meriqqi, Interview, 24 July 1984. ¹¹Cammock, Interview, 24 July 1984. ¹²Meriggi, Interview, 24 July 1984. ¹³Cammock, Interview, 24 July 1984. ¹⁴Buist, Kitchen Gardener, p. 97. ¹⁵Burr, Vegetables of America, p. 607. ¹⁶Burr, <u>Vegetables of America</u>, p. 607. ¹⁷Vick's, 1872, p. 108. ¹⁸Meriggi, Interview, 24 July 1984. ¹⁹Meriggi, Interview, 24 July 1984. ²⁰Boys, <u>Guidelines</u>, p. 11. ²¹Griffith, Vegetable Garden Handbook, p. 88. ²²Organic Gardener's Complete Guide, 1982, p. 252. ²³Burr, <u>Vegetables of America</u>, p. 607-08. ²⁴Vilmorin-Andrieux, <u>The Vegetable Garden</u>, p. 152-53.

POTATO Solanum tuberosum

Beacom 5/29/1967; Blackwell 7/6/1970; Cammock 7/24/1984; Cheyney 4/3/1964, 12/19/1983, 1/23/1984, 2/15/1984, 3/26-/1984; Dever 1981; Dunlop 4/30/1984; Fitzharris 1969; Flanigan May/June 1960; Hudson 8/1/1968; Kauss 2/17/1981; Lattomus & Walls 6/12-25/1969; Leto 5/25/1983; Meriggi 6/10/1984, 6/20/1984, 7/24/1984; Seitz 5/13/1984 Toomey; 2/8/1984; Yetter 7/25/1984; Photograph H50-17

White potatoes were a staple food of the powder mill workers at the Hagley yards. This crop occupied anywhere from a token planting of one row to insure a crop of new potatoes for the 4th of July holiday,¹ to two to three rows² to over one third to one half of the area occupied by the family garden.^{3 4} An undated photograph depicts the family of Jacques Seitz standing next to their Free Park home in back of an extensive planting of potatoes.⁵ (See Figure 1) Even by devoting so much area to a single crop supplies seldom lasted through the entire winter^{6 7 8} and additional quantities were purchased^{9 10} from the duPont farms on the Upper Banks.^{11 12 13} Orders were taken during the summer and three grades of potatoes offered -- small, medium and baking size. Mrs. Yetter's family ordered six to eight bushels of potatoes for winter use each year. She said that the gardens at Squirrel Run were much too small to produce enough potatoes to last a family the entire year.¹⁴ Several informants mentioned that their main midday meal or dinner always included meat, a vegetable and a potato.¹⁵ 16 17 James Cammock said that on numerous occasions potatoes were combined with ham and cabbage for a meal.¹⁸

The first crop of new potatoes was looked for with anticipation each 4th of July holiday.¹⁹ ²⁰ ²¹ New potatoes were a special treat early in the season, and a source of pride for their growers,²² but the bulk of the crop was left to mature for winter storage and use.²³

The powder yard workers and their families were not the only ones who eagerly awaited the potato crop. The chickens relished the peelings. One powder worker's daughter recalled how her mother kept a pot on the stove and would heat a special mash of potato peelings, discarded cabbage leaves and other vegetable scraps in a black cast iron pot with an enamel interior for the chickens during the winter.²⁴ The children helped out not only by feeding the chickens and peeling the potatoes,²⁵ ²⁶ but also at harvest time. The men did the digging while the children followed behind with bushel baskets and picked up the exposed tubers.²⁷

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Informants did not recall sweet potatoes being grown to any great extent although they were known. Two recalled their parents growing the sweet potato, but without luck.²⁸ ²⁹ The tubers were very small.³⁰ Sweet potatoes are a very long, warm season crop and and it is difficult to get them planted early enough to mature to a good size because of their intolerance to cold.

Culture

Potatoes are heavy feeders and do best on a light, fertile, well-drained soil.³¹

Potatoes are most commonly propagated vegetatively by slicing the tubers into substantial sections, about the size of a hen's egg, each containing at least one strong eye or bud³² and preferably two.³³ This procedure took place in the basement where the potatoes were stored³⁴ or in the kitchen. The propagules were then carried to the garden in baskets.³⁵ Allow the cut surfaces to dry thoroughly before the divisions are planted to prevent rotting.³⁶ Quinn recommended that the sets be dried for two weeks prior to planting and dusted with wood ashes.³⁷

Sets for planting should be cut at least one week before planting, and spread out thin on a floor to dry. Potatoes of medium size make from four to six sets... and if large, eight sets can be made. 38

Mrs. Yetter recalled that the potatoes were planted as early as possible in order to have new potatoes by the fourth of July, but that they were not to be planted until sometime after the seventeenth of March because of the cold.³⁹

Plant in rows two and a half to three feet apart, each potato section ten inches apart with the eye facing upward. $40 \ 41$ Cover with four inches of soil.⁴² One informant reduced the process to digging a hole and dropping in the potato.⁴³ As the divisions sprout and appear above the ground:

...gather the earth gradually about the hills or along the drills, adding a little at each successive hoeing for the support of the growing plants, and to encourage the development of the sideroots; for it is at the extremities of these that the tubers are formed. 44

Three informants agreed with this advice of planting the potatoes in a row level with the rest of the garden and drawing the soil up around the stem of the growing plants later during the cultivation process.⁴⁵ 46 47

Harvest & Storage

New potatoes are of sufficient size to dig (about one inch in diameter) when the plants have finished blooming.⁴⁸ According to one informant, potatoes were dug as needed through the growing season, leaving the bulk of the crop for winter storage. To harvest the main crop allow the tops to die down and dig with a fork⁴⁹ before the first frost. Wipe off the soil and allow the tubers to dry^{50} before storing them in a cool, dry, dark cellar.⁵¹ ⁵² Catherine Cheyney said that her mother wanted the potatoes stored in a dark place.⁵³ One informant recalled picking up the exposed tubers as her father dug them and placing them in baskets to be carried home.⁵⁴

Exposing the tubers to light causes a chemical change in potatoes, rendering them inedible.

When Potatoes are left exposed to the sunlight, they soon turn green, a bitter principle is evolved, and when cooked, they have a nauseating and unpleasant taste...This kind of exposure hastens decay, no matter where the Potatoes are kept. Even when purchased for family use, in small quantities, say a barrell or a bushel at at time, they should be kept in a dark corner of the cellar.⁵⁵

Many of the powder workers used their earthen-floored basements for potato storage.⁵⁶ 57 58 59 There the tubers were kept in a lidded wooden bin or in baskets.⁶⁰ ⁶1 When the house lacked a basement, the attic⁶² ⁶³ the kitchen cupboard,⁶⁴ an unheated backroom,⁶⁵ ⁶⁶ or a cemented hole adjacent to the house was used for storage.⁶⁷ Unlike in the case of storing root crops or cabbages, no mention was made of storing potatoes in a pit in the garden. Miss Cheyney said that potatoes did not store well over the entire winter.⁶⁸ Many of the powderworkers used the potatoes remaining from winter storage as propagules for spring planting.⁶⁹ 70 Some families preferred to use those tubers which had formed shoots in storage,⁷¹ ⁷² although leading horticulturists of the day advised against this practice. They recommended using pieces with dormant eyes, which were stronger growers.⁷³ ⁷⁴

Towards the end of January and February, they should have a regular turning, to prevent their sprouting. If any have begun to grow, pick off the growths. They will require this operation repeated every few weeks while they are in the cellar. If this is not carefully attended to, and the Potato is allowed to grow to any extent, they will lose much of their farinaceous quality. It is also very essential to turn over frequently those intended for seed, to prevent a premature growth. The greater the vegetative power of the set, the finer and stronger they will grow.⁷⁵

If potatoes from a previous crop are to be used for seed potatoes, select firm, small to medium sized potatoes after the harvest and set them aside for that purpose. This eliminates the problem of using the culls of one crop to start an inferior new crop.⁷⁶ By far the best method is to [.] buy certified, disease free stock when available,⁷⁷ to insure an ample crop for demonstration purposes. Unfortunately, certified, disease-free stock probably will not be available in the varieties suggested for use.

Pests & Diseases

Aphids, Blister Beetles, Colorado Potato Beetle, White Grubs⁷⁸ Wireworms⁷⁹ can affect potatoes. Potatoes were an important crop to the powderworker and memories of insect control are vivid. One informant remembered using Paris Green on the vines.⁸⁰ This pesticide contains arsenic and is not available for use today. Another recalled the use of sulfur dusted lightly and infrequently on the plants from a cheesecloth bag to keep insects away.⁸¹

In 1871 Quinn reported that the Colorado Potato Beetle was a problem in the western United States but not reached the eastern portion of the country.⁸² The insect obviously had reached the east coast by the turn of the century as its memory is most vivid in the minds of many informants. A number of local newspaper articles during the 1870's describing the control of this insect confirm that it was a problem on the east coast even as Quinn wrote. "Sure Death to Potato Bugs" in the July 8, 1875 Delaware Gazette recommended a mix of three pounds of Paris Green and three bushels of wood ashes or road dust to treat one acre of potatoes.⁸³ Another article intended for home gardens recommended handpicking the insects and noted that the Lady Beetle attack the eggs of the Colorado Potato Beetle. Α third article noted that "Every available means for securing the destruction of noxious insects should be made use of."

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It recommended using toads for insect control as well as planting buckwheat among the potatoes or planting the potato crop in an area where buckwheat was grown the previous year.⁸⁴

One informant recalled sprinkling a little white powder on the vines by hand to rid the vines of the insects. He said that the rain washed it off eventually.⁸⁵ This substance might have been lime as it was considered safe enough to apply by hand. A second informant remembered spraying potato bug ridden vines with a fine dust that would settle on the plants. This operation was accomplished with a cylinder sprayer with a pump handle. Potatoes were the only crop treated with this dust.⁸⁶ Potato bugs were also picked off of the plants by hand and dropped to their deaths in a jar filled with kerosene. This task was performed in the morning when the insects were most sluggish.87 Thomas Dunlop recalled that it was the job of the children after school to pick potato bugs off of the vines and drop them into a can of coal oil.88

Avoid rotating potatoes onto land where peppers or tomatoes have previously been grown for they are all in the family Solanaceae and are affected by similar diseases and pests. Avoid liming the area where potatoes are to be planted as this practice encourages scab.⁸⁹

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Recommended Variety -- Early Variety

Early Rose (syn. Prince Edward Island) (See Figures 52-54)

"Early Rose, Prince Edward Island -- A leading variety for earliness, quality and productiveness."⁹⁰

The Delaware Gazette of March 15, 1870 offered seed potatoes of the Early Rose sold by G. Chandler and Son of Wilmington, Delaware.⁹¹

"The general favorite for early crops is still the Early Rose; and for general crop, Peach Blows."⁹²

This excellent variety was introduced about five years ago, and has become a universal favorite. It is one of the very best yet introduced for earliness, quality and productiveness.⁹³

Early Rose, a seedling introduced by Mr. Breese of Vermont. With three years trial it has attained a national reputation. It is well worthy of it, for it is the best early variety that we have at present, either for family use or for market. The Rose is a large-sized Potato, smooth skin, few eyes, flesh white, and steams or boils mealy.⁹⁴

A French seedman described it in more detail:

Tubers oblong, rather flattened, often more pointed at the top than at the bottom; eyes not very deeply sunk, but having a rather prominent ridge or wrinkle below them; skin smooth, and of a pink colour slightly tinged with salmon colour; flesh white; shoot pink, an germinating remarkably soon. Stems medium sized, erect, from 2 to 2 1/2 ft. high, rather thick at the base, but speedily becoming more slender, sometimes branching, and slightly tinged with coppery red, especially near the joints. Leaves flat and smooth, composed almost solely of large oval-acuminate leaflets, of uniform size, slightly glistening, and of a light-green colour. Flowers white, large, in not very numerous clusters, and usually falling off abortive. A very productive and early kind, the crop ripening in the month of August. Flesh light in texture, and extremely variable in quality, according to the kind of soil in which the tubers are planted. These do not keep well, as they have too great a tendency to sprout.⁹⁵

Documentation

Landreth 1874,1884

Burpee 1883 Vick's 1880

Commercial Sources

The Garden Seed Inventory lists:

No Sources

Private Sources

The Seed Saver's Exchange 1987 Winter Yearbook lists:

Charles E. Voigt, Rt. 1, Box 197, Bonfield, Illinois 60913 Will Bonsall, SCATTERSEED PROJECT, Box 1167, Farmington, ME 04938

Sherm Neal, 5117 G. Knolls Lane, Ann Arbor, MI 48103 Barbara A. Lund, P.O. Box 16, Blue Creek, Ohio 45616 Henry Morton, Old Fashioned Apple Trees, RT 1, Box 203,

Gatlinburg, Tennesee 37738

Alex Caron, Rt. 3, King City, Ontario, Canada LOG 1KO Richard Beaulne, 1796 DeSienne Chomedey, Laval Quebec, Canada H1G 4Y7

FOOTNOTES

¹Yetter, Interview, 25 July 1984.

²Cheyney, Interview, 15 February 1984.

³Cammock, Interview, 24 July 1984.

⁴Kauss, Interview, 17 February 1981.

⁵Photograph, H50-17.

⁶Cammock, Interview, 24 July 1984.

⁷Cheyney, 15 February 1984, 26 March 1984.

⁸Meriggi, Interview, 20 June 1984.

⁹Beacom, Interview, 29 May 1967.

¹⁰Hudson, Interview, 1 August 1968.

¹¹Interview with William Flanigan, Eleutherian Mills Hagley Foundation Oral History Files, Greenville, DE, May-June 1960.

¹²Lattomus and Walls, Interview, 12, 25 June 1969.

¹³Yetter, Interview, 25 July 1984.

¹⁴Yetter, Interview, 25 July 1984.

¹⁵Cheyney, Interview, 23 January 1984.

¹⁶Interview with Ella Fitzharris, Eleutherian Mills Hagley Foundation Oral History File, Greenville, DE, 1980.

¹⁷Kauss, Interview, 17 February 1981.

¹⁸Cammock, Interview, 24 July 1984.

¹⁹Beacom, Interview, 29 May 1967.

²⁰Cheyney, Interview, 15 February 1984.

²¹Yetter, Interview, 25 July 1984.

²²Yetter, Interview, 25 July 1984.

²³Cheyney, Interview, 15 February 1984.

²⁴Cheyney, Interview, 15 February 1984.

²⁵Interview with Ella Fitzharris, Eleutherian Mills Hagley Foundation Oral History File, Greenville, DE, 1969.

²⁶Leto, Interview, 25 May 1983.

²⁷Interview with Mrs. Emily Blackwell, Eleutherian Mills Hagley Foundation Oral History File, Greenville, DE, 6 July 1970.

²⁸Cheyney, Interview, 15 February 1984.

²⁹Meriggi, Interview, 24 July 1984.

³⁰Meriggi, Interview, 24 July 1984.

³¹Burr, <u>Vegetables of America</u>, p. 45.

³²Cheyney, Interview, 15 February 1984.

³³Cammock, Interview, 24 July 1984.

³⁴Beacom, Interview, 29 May 1967.

³⁵Yetter, Interview, 25 July 1984.

³⁶Griffith, <u>Vegetable Garden Handbook</u>, p. 90.

³⁷Quinn, <u>Money</u>, p. 202.

³⁸Buist, <u>Kitchen Gardener</u>, p. 101.

³⁹Yetter, Interview, 25 July 1984.

⁴⁰Henderson, <u>Pleasure</u>, p. 211.

⁴¹Cammock, Interview, 24 July 1984.

⁴²Burr, <u>Vegetables of America</u>, p. 47.

⁴³Yetter, Interview, 25 July 1984.

⁴⁴Burr, <u>Vegetables of America</u>, p. 47-48.

⁴⁵Cheyney, Interview, 23 January 1984.

⁴⁶Meriggi, Interview, 24 July 1984.

⁴⁷Yetter, Interview, 25 July 1984.

⁴⁸Bernard Moore, <u>Vegetable Gardening with Bernard</u> <u>Moore</u>, Vancouver, B.C.: Intermedia Press Ltd., 1980, p. 68. ⁴⁹Cammock, Interview, 24 July 1984. ⁵⁰Meriggi, Interview, 24 July 1984. ⁵¹Buist, Kitch<u>en Gardener</u>, p. 104. ⁵²Quinn, Money, p. 206. ⁵³Cheyney, Interview, 23 January 1984. ⁵⁴Blackwell, Interview, 6 July 1970. ⁵⁵Quinn, Money, p. 206. ⁵⁶Beacom, Interview, 29 May 1967. ⁵⁷Cheyney, Interview, 3 April 1964. ⁵⁸Hudson, Interview, 1 August 1968. ⁵⁹Kauss, Interview, 17 February 1981. ⁶⁰Cheyney, Interviews, 3 April 1964, 19 December 1983, 23 January 1984, 26 March 1984. ⁶¹Seitz, Questionnaire, 15 February 1984. ⁶²Leto, Interview, 25 May 1983. ⁶³Fitzharris, Interview, 1969. ⁶⁴Cammock, Interview, 24 July 1984. ⁶⁵Meriggi, Interview, 24 July 1984. ⁶⁶Yetter, Interview, 25 July 1984. ⁶⁷Blackwell, Interview, 6 July 1970. ⁶⁸Cheyney, Interview, 15 February 1984. ⁶⁹Beacom, Interview, 29 May 1969. ⁷⁰Yetter, Interview, 25 July 1984.

⁷¹Cheyney, Interview, 26 March 1984.

⁷²Yetter, Interview, 25 July 1984.

⁷³Buist, <u>Kitchen Gardener</u>, p. 105.

⁷⁴Green, <u>Vegetable Gardening</u>, p. 257.

⁷⁵Buist, Kitchen Gardener, p. 105.

⁷⁶Moore, Vegetable Gardening, p. 68.

⁷⁷Griffith, <u>Vegetable Garden Handbook</u>, p. 90.

⁷⁸Boys, <u>Guidelines</u>, p. 11.

⁷⁹Quinn, <u>Money</u>, p.213.

⁸⁰Blackwell, Interview, 6 July 1970.

⁸¹Meriggi, Interview, 24 July 1984.

⁸²Quinn, Money, p. 213-14.

⁸³Delaware Gazette, "Sure Death to Potato Bugs", Wilmington, DE, 8 July 1875, p. 1.

84Delaware Gazette, "The Potato Bug", Wilmington, DE, 24 June 1875, p. 1.

⁸⁵Cammock, Interview, 24 July 1984.

⁸⁶Yetter, Interview, 25 July 1984.

87Cammock, Interview, 24 July 1984.

⁸⁸Interview with Thomas Dunlop, Eleutherian Mills Hagley Foundation Oral History File, 30 April 1984.

⁸⁹Griffith, <u>Vegetable Garden Handbook</u>, p. 90.

⁹⁰Dreer's, 1891, p. 33.

91 Delaware Gazette, Wilmington, DE, 15 March 1870.

⁹²Henderson, <u>Pleasure</u>, p. 211.

⁹³Henderson, <u>Profit</u>, p. 227.

94Quinn, Money, p. 208.

.

95Vilmorin-Andrieux, The Vegetable Garden, p. 460-61.

RADISH Raphanus sativus

Cammock 7/24/1984; Cheyney 1/23/1984, 3/26/1984; Kauss 2/17/1981; Meriggi 7/24/1984; Seitz 5/13/1984; Smith 2/15/1984; Yetter 7/25/1984

The name Radish comes from the latin word 'raphanos' which means easily reared.¹ There is every indication that this undemanding spicy root had a place in many vegetable gardens near the Hagley yards.² 3 4 5 6 7 8

Two informants indicated that the radish 'patch' was located close to the house.⁹ ¹⁰ Miss Cheyney remembered radishes planted in a 'patch' and located next to the lettuce patch at the base of the steps which lead to her father's garden.¹¹ As a child, Mrs. Yetter lived in Squirrel Run where the gardens were located at some distance from the houses. Her family planted radishes along with lettuce in the flower beds around their house.¹² C. Natalie Meriggi remembered that radishes were planted in "a square space".¹³ Radishes were grown from purchased seed and described as little round roots with a red top and white bottom about the size of a nickel.¹⁴ Other informants

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remembered them as big, red and round, 15 16 or long and white with a dark top. 17

The radish is a hardy annual root that germinates and matures quickly. Radishes suffer from drought and the heat of the summer making their roots very pungent and fibrous.¹⁸ The long days of summer also trigger seed formation at the expense of the succulent root.¹⁹

Culture

Sow the seed as soon as the ground can be worked in the spring...If space is limited, Radishes may be sown with onions or lettuce. When grown with the former, they are said to be less affected by the maggot. For a succession, a small sowing should be made each fortnight until midsummer, as the early-sown plants are liable to become rank and unfit for use as they increase in size.²⁰

"Make drills three fourths of an inch deep and six inches apart and thin the young plants out to stand two inches apart in the rows."²¹

"Should they be too thick, at any time, when fairly up, they must be thinned to an inch apart; for if allowed to grow crowded together, they will not produce a crop"²²

James Vick stated that the radish should be grown quickly to be crisp and succulent. If the crop is grown slowly it will be "...hard, fibrous and disagreeably pungent."²³ The crop should be watered during dry weather.²⁴ It is doubtful that the powdermen would water a radish crop during dry spells unless they were planted very close to the house or the pump.

Harvest & Storage

Pull as needed when the roots reach maturity. Pull all plants that begin to bolt to seed. James Vick commented that radishes could be pitted outside or buried in earth in the cellar to stay crisp all winter.²⁵ I found no evidence that radishes were preserved in this manner for winter use by the powdermen.

Pests & Diseases

The young leaves of the radish can be severly affected by flea beetles when very young. Root maggots attack the bulbs. Avoid rotation with other members of the Brassica group or Cabbage family.

The Radish is frequently retarded, and, in fact, the crop destroyed by a grub, <u>Anthomgia</u> <u>raphani</u>. This little insect deposits an egg in the root of the Radish just under the surface, and in a short time appears the maggot, which feeds upon the young Radish. The best remedy that we know for this destructive insect is to apply a dressing of common salt to the surface in the Fall, and in the Spring when the ground is ready for Planting, give a top-dressing of fresh air-slacked lime--or sprinkle some in the row, before sowing the seed--or in addition to the top dressing of lime, apply fine bone meal in the drill with the seed.²⁶ In response to the problem of attack by the flea beetle the following recommendation should be heeded:

A top dressing of soot, or even coal ashes, will be of much benefit, as we have found by long experience. The great point is to get the plants to grow rapidly after the seed-leaf appears above the ground, so as to be out of the way of the black beetle that proves so troublesome when they are young, puncturing every leaf. Sow soot, ashes, or dust, over them frequently, as the beetle dislikes gritty food.²⁷

Water stress and warm weather can hamper the formation of the root. James Vick advised also to: "Give plenty of light and air, or they will become drawn -- that is slender and worthless."²⁸

Recommended Variety

Early Scarlet Turnip (See Figures 55-59)

"Early Scarlet Turnip grows rapidly, medium size, shape round, when young delicate in flavor and very popular."²⁹

"When the weather becomes hot, the Turnip-rooted sorts succeed best."³⁰

Bulb spherical, or a little flattened, -often bursting or cracking longitudinally before attaining its full dimensions; skin deep scarlet; flesh rose colored, crisp, mild, and pleasant; neck small; leaves few in number...season quite early...³¹

Documentation

Bridgeman 1837	Burpee	1880,1883
Landreth 1876,1883,1884	Parker	& White 1852

Commercial Sources

The Garden Seed Inventory lists:

No Sources

Private Sources

The Seed Savers Exchange 1987 Winter Yearbook lists: No Sources

Continue searching for a source for Early Scarlet Turnip and use Scarlet Turnip White Tip as substitute. Scarlet Turnip White Tip was not as commonly carried or recommended.

Recommended Variety

Scarlet Turnip White Tip (See Figure 60)

"A fancy French variety; scarlet bulb with white bottom-- very showy and delicate."³²

"Very handsome, bright scarlet color, with white tip."³³

"...Does not get hollow or pithy, intro. before 1859."³⁴

Documentation

No additional references

Commercial Sources

The Garden Seed Inventory lists:

Archias Botzum Seed Co. Crosman Seed Corp. Dorsing Seeds, Inc. Allen, Sterling & Lothrop Chas. H. Lilly Co. Southern States Cooperative Saunders Seeds, Inc. Johnson Seed Co. Lindenberg Seeds Ltd. McConnell Nurseries, Inc. P.L. Roher Bros., Inc. Lagomarsino Seeds, Inc. Everett Seed Co. Gaze Seed Co., Ltd. Landreth Seed Co. Wyatt-Quarles Seed Co.

Private Sources

The Seed Saver's Exchange 1987 Winter Yearbook lists:

No Sources

FOOTNOTES

¹Organic Gardener's Complete Guide, 1982, p. 259. ²Cammock, Interview, 24 July 1984. ³Cheyney, Interviews, 23 January 1984, 26 March 1984. ⁴Kauss, Interview, 17 February 1981. ⁵Meriggi, Interview, 24 July 1984. ⁶Seitz, Interview, 13 May 1984. ⁷Smith, Questionnaire, 15 February 1984. ⁸Yetter, Interview, 25 July 1984. ⁹Cheyney, Interview, 23 January 1984. ¹⁰Yetter, Interview, 25 July 1984. ¹¹Cheyney, Interview, 23 January 1984. ¹²Yetter, Interview, 25 July 1984. ¹³Meriggi, Interview, 24 July 1984. ¹⁴Yetter, Interview, 25 July 1984. ¹⁵Cheyney, Interview, 26 March 1984. ¹⁶Meriggi, Interview, 24 July 1984. ¹⁷Cheyney, Interview, 26 March 1984. ¹⁸Burr, Vegetables of America, p. 68. 19 Organic Gardener's Complete Guide, 1982, p. 261. ²⁰Burr, <u>Vegetables of America</u>, p. 68. ²¹Vick's, 1880, p. 109. ²²Buist, <u>Kitchen Gardener</u>, p. 107. ²³Vick's, 1880, p. 109. ²⁴Burr, <u>Vegetables of America</u>, p. 69.

²⁵Vick's, 1880, p. 87.

²⁶Quinn, <u>Money</u>, p. 219.

²⁷<u>Vick's</u>, 1872, p. 109.

²⁸<u>Vick's</u>, 1872, p. 109.

²⁹Quinn, <u>Money</u>, p. 219.

³⁰Parker and White, 1852, p. 95.

³¹Burr, <u>Vegetables of America</u>, p. 70.

RHUBARB Rhus rhaponticum

Cheyney 2/15/1984, 3/26/1984; Cammock 7/24/1984; Meriggi 7/24/1984; Seitz 5/13/1984; Smith 2/15/1984; Yetter 7/25-/1984

A perennial plant sometimes referred to as 'pie plant' because of a common usage. It is normally relegated to the borders of the vegetable garden because of its perennial nature. One powderman's family grew a pink stemmed variety, and stewed it and thickened it with cornstarch and sugar to make a "pudding" that had a pretty pink color.¹

Six informants mentioned rhubarb. Three of them recalled families living adjacent to the Hagley Yards growing the crop,² ³ ⁴ and three do not remember the crop $_{\rm grown}^{5}$ ⁶ ⁷

Culture

Catherine Cheyney's father received a division of rhubarb from the preacher and grew his plant at the border of the garden.⁸ According to two nineteenth century horticultural authorities, the most common method of propagation of rhubarb was by division.⁹ 10

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"When once planted, Rhubarb gives less trouble than any other vegetable. We give our patch a heavy dressing of manure every spring, and fork it under; two hoeings through the season will keep down the weeds.¹¹

Burr suggested digging the soil to a depth of two or three feet deep and forking in a generous quantity of manure.¹²

Root divisions may be set out in October, three feet apart, placing the crown of the plant two inches below the surface of the soil. Cover the new plantings with a thick layer of mulch the first winter to prevent frost heaving. No further after culture is needed other than cultivation, and top dressing with well rotted manure in early winter. The plants may need rejuvenation every four to five years by dividing the roots and re-setting the plants.¹³

Quinn stated that it made no difference if rhubarb was set out in the spring or the fall. He recommended dividing the clumps in August every eight or nine years.¹⁴

If starting the plant from seed, use the following instructions:

"Sow in April in drills 1 foot apart; when 3 or 4 inches high, thin out in the rows to 10 inches apart and transplant the ensuing autumn or spring to any desired situation, in a deep, rich soil. The ground must be dry and heavily manured, at least 2 feet deep. Set out the roots 3 feet apart each way, and the following spring they will be fit for use.¹⁵

Harvest & Storage

Starting with the second year after planting, the leaf stalks should be pulled from the plant with a sidewards
motion when the leaves are half expanded.¹⁶ The leafy portion of the plant is poisonous and should be discarded.

Pests & Diseases

Relatively a pest-free crop, although it may experience a yellowing blight in late summer which does not seem to harm the plant to any extent.

Recommended Variety

Myatt's Victoria (syn. Victoria)

"Victoria...has a much larger and longer leaf stock than Linnaeus and on this account it is cultivated by gardeners for the main crop late in the season.¹⁷

"Very large; the finest cooking variety."¹⁸

Leaves large, broader than long, deep green, blistered on surface and much waved or undulated on the borders, leaf stalks very large, varying from two inches and a half to three inches in their broadest diameter, and frequently measuring upwards of two feet and a half in length; the weight of a well developed stalk, divested of the leaf, is about two pounds. They are finely spotted with red, to the nerves of the leaf.

It has rather a thick skin; is more acid than many other varieties, and not particularly well flavored; but no kind is more productive; and this in connection with its extraordinary size, makes it not only the most saleable, but one of the most profitable, kinds for growing for the market.

It requires a deep, highly manured soil, and the roots should be divided and reset once in four or five years.¹⁹

Documentation

Dreer 1872

Henderson 1874

Commercial Sources

The Garden Seed Inventory lists under Victoria:

Otto Richter and Sons, Ltd. Roswell Seed Co. Royal Seeds, Inc. R.H. Shumway Seedsman Tregunno Seeds Ltd. Vita-Green Farms, Inc. Willhite Seed Co. J.L. Hudson, Seedsman W.H. Perron Seed Co. Eckroat Seed Co. Garden Magic Seed Co. Dean Foster Nurseries Gaze Seed Company Ltd. Wetsel Seed Company Ltd. Geo. W. Hill & Co. Ed Hume Seeds Olds Seed Co.

Private Sources

The Seed Saver's Exchange 1987 Winter Yearbook lists:

No Sources

FOOTNOTES

¹Cheyney, Interview, 15 February 1984. ²Cheyney, Interviews, 15 February 1984, 26 March 1984. ³Seitz, Interview, 13 May, 1984. ⁴Smith, Questionnaire, 15 February 1984. ⁵Cammock, Interview, 24 July 1984. ⁶Meriggi, Interview, 24 July 1984. ⁷Yetter, Interview, 25 July 1984. ⁸Cheyney, Interview, 15 February 1984. ⁹Burr, <u>Vegetables of America</u>, p. 615-16. ¹⁰Vick's, 1875, p. 98. ¹¹Quinn, Money, p. 221-22. ¹²Burr, Vegetables of America, p. 616. ¹³Buist, <u>Kitchen Gardener</u>, p. 111. ¹⁴Quinn, Money, p. 222. ¹⁵Dreer's, 1891, p. 37. ¹⁶Burr, <u>Vegetables of America</u>, p. 617. ¹⁷Quinn, <u>Money</u>, p. 223. ¹⁸Dreer's, 1891, p. 37. ¹⁹Burr, <u>Vegetables of America</u>, p. 620.

SPINACH Spinacia oleracea

Cammock 7/24/1984; Cheyney 12/19/1983, 1/23/1984, 3/26/1984; Meriggi 7/24/1984; Seitz 5/13/1984; Yetter 7/25/1984

A cool weather annual crop that remains vegetative under short day conditions, but bolts to seed during the longer days of mid-summer.¹ One powderworker planted two crops of spinach, one in March, and a second in June.² Another informant said that her family grew very little spinach because of limited garden space.³ Two families did not grow spinach at all.⁴ ⁵ One informant said that her family grew one crop of spinach annually in the spring.⁶

Spinach is not a very productive crop in this area because of the hot summers. The families did not seem to put a great deal of emphasis on this crop and it might be just for this reason. I recommend spinach be planted as an early crop and then followed by a later sowing of turnips or the like. Quinn stated that tomatoes, eggplants or cabbage may be planted after the spinach crop is finished.⁷ Buist suggested that the early spring spinach crop be sown in the area where pole beans are intended.⁸

As it did not seem to be a staple crop in the gardens of the powdermen, some years it is appropriate to forego growing any spinach at all, and use the space for another infrequently grown crop for demonstration purposes.

Culture

Being a leafy crop, spinach benefits by a high soil nitrogen content. It also does poorly in acid soil.⁹

Spinach is best developed, and most tender and succulent, when grown in rich soil. For winter sorts, the soil can hardly be made too rich. It is always raised from seeds, which are sown in drills twelve or fourteen inches apart, and three fourths of an inch in depth. The seeds are sometimes sown broadcast, but the drill method is preferable, not only because the crop can be cultivated with greater facility, but the produce is more conveniently gathered. For a succession, a few seeds of the summer varieties may be sown at intervals of a fortnight from April til August.¹⁰

Buist suggested that the drills be spaced nine inches apart and the seeds sown one quarter of an inch deep.¹¹ Thin the plants to eight inches apart when of significant size.¹²

One powderman's family planted spinach in a "square space" or patch just as they did with the lettuce.¹³ Although nineteenth century horticulturists admit that broadcast sowing of spinach was the general practice because of the ease of planting, in their opinion, it was not the preferred method. Broadcast sowing was according to seedsman Robert Buist, "...a system we deprecate, as being unprofessional, without neatness, and giving afterwards more labor to clean."¹⁴

Harvest & Storage

When the leaves are two to three inches broad they will be fit for gathering. This is done either by cutting them with a knife wholly to the bottom, drawing and cleaning them out by the root, or only cropping the larger outer leaves,--the root and heart remaining to shoot out again. Either method can be adopted, according to season or circumstances.¹⁵

No mention was made of any attempts to store spinach by canning or otherwise. It is not a high yielding crop in terms of production per area consumed.

"Spinach eaten freely, is laxative and cooling; it has no hurtful quality; but does not afford much nutriment. It is however, a useful and a grateful vegetable, and very wholesome; and may be eaten in almost all kinds of diseases when no other vegetable would be allowed.

The young leaves of spinach were used in salading, not only in the time of Queen Elizabeth, but as late as the days of Charles I. The leaves of these plants being of a very succulent or moist nature, must be boiled without water except what adheres to them in the rinsing, after having been washed.¹⁶

Pests & Diseases

Spinach is a relatively problem free vegetable except for its tendency to bolt to seed at the onset of hot weather. Some troubles in the Wilmington area include poor germination, and leaf miner. Sowing the seed generously, keeping the seed bed moist and destroying leaves infected with miner should remedy these two problems.

Recommended Variety

Round Leaved or Common Summer (syn. Round Dutch- Burr)

"Round Spinach is the most popular for home use or market. The seed is smooth, the leaves large and slightly crimped."¹⁷

Leaves large, thick, and fleshy, rounded at the ends, and entire, or nearly entire, on the borders.

This variety is generally grown for summer use; but it soon runs to seed, particularly in warm and dry weather. Where a constant supply is required, a sowing should be made every fortnight, commencing as early in spring as the frost leaves the ground. The seeds are round and smooth. Plants from the first sowing will be ready for use the last of May or early in June.¹⁸

Documentation

Vick's 1872,1880 Henderson 1874 Bridgeman 1837

Commercial Sources

The Garden Seed Inventory lists:

No Sources

Private Sources

The Seed Saver's Exchange 1987 Winter Yearbook lists:

No Sources

Continue the search for this variety, using Prickly Seeded as a substitute.

Recommended Variety

Prickly Seeded or Fall, Winter Prickly (See Figure 61)

"The hardiest variety, having smaller leaves, is not so productive as the above sorts."¹⁹

Leaves seven or eight inches long, halberd-shaped, deep green, thin in texture, and nearly erect on the stalk of the plant; seeds prickly. From this variety most of the improved kinds of Prickly Spinach have been obtained; and the Common Winter or Prickly-seeded is now considered scarcely worthy of cultivation.²⁰

Documentation

Bridgeman 1837 Dreer 1872 Vick's 1872,1880 Burpee 1880,1883 Landreth 1874,1876

Commercial Sources

The Garden Seed Inventory lists:

No Sources

Private Sources

The Seed Saver's Exchange 1987 Winter Yearbook lists:

John Wyncoll, 21 Harwood Street, Darwen, Lancashire, England BB3 1PE

FOOTNOTES

¹Newcomb, <u>Sourcebook</u>, p. 208.

²Cheyney, Interview, 23 January 1984.

³Meriggi, Interview, 24 July 1984.

⁴Cammock, Interview, 24 July 1984.

⁵Yetter, Interview, 25 July 1984.

⁶Seitz, Interview, 13 May 1984.

⁷Quinn, <u>Money</u>, p. 228.

⁸Buist, <u>Kitchen Gardener</u>, p. 121.

⁹Organic Gardener's Complete Guide, 1982, p. 271.

¹⁰Burr, <u>Vegetables of America</u>, p. 300.

¹¹Buist, <u>Kitchen Gardener</u>, p. 122.

¹²Newcomb, <u>Sourcebook</u>, p. 208.

¹³Meriggi, Interview, 20 June 1984.

¹⁴Buist, <u>Kitchen Gardener</u>, p. 121.

¹⁵John Rogers, <u>The Vegetable Cultivator</u>, London: Longman, Orme, Brown, Green and Longmans, 1839, p. 301.

¹⁶Buist, <u>Kitchen Gardener</u>, p. 298.

¹⁷Quinn, <u>Money</u>, p. 228.

¹⁸Burr, <u>Vegetables of America</u>, p. 302-03.

¹⁹Dreer's, 1891, p. 37.

²⁰Burr, Vegetables of America, p. 303.

SQUASH <u>Curcubita maxima</u>--Winter Squash <u>Curcubita pepo</u>--Summer Squash & Pumpkins Curcubita moschata--Cheese Pumpkin

Biddle 3/23/1983; Cammock 7/24/1984; Cheyney 2/15/1984, 3/26/1984; Meriggi 7/24/1984; Seitz 5/13/1984; Yetter 7/25/1984

Judging by its frequent absence of the mention of squash in the reminiscences of the informants it was not grown to any great extent in the powdermen's gardens nor was it not a commonly used vegetable. Two main types of squashes were available to the powdermen. Summer squash which is picked while the skin is still very tender and eaten fresh, and winter squash which is allowed to mature and harden for winter storage until the skin cannot be easily pierced by a fingernail.

Three informants said that their families grew summer squash, the White Patty Pan or White Bush Scallop squash,¹ ² a green zuchinni and a flat, white squash that was probably a white bush scallop squash.³ Miss Cheyney said that her family did not grow any yellow squash.⁴ Mr. Cammock did not grow any type of squash in his garden.⁵ Mrs. Yetter recalled that as a child she had never heard of squash,

although she admitted that some families planted a few pumpkin vines in order to have pumpkins for Thanksgiving pies or for jack o' lanterns at Halloween.⁶

Both Miss Cheyney and Mrs. Meriggi said that their families grew a few pumpkins. Mrs. Meriggi's family grew yellow, round pumpkins that they used for pies.⁷ The Cheyney family grew three vines of pumpkins for pies at Halloween although Catherine Cheyney admitted that they never celebrated Halloween to any great extent.⁸ The duPonts planted pumpkins in their corn fields. Mrs. Yetter remembered "stealing" one with friends for use at home.⁹ Another informant recalled pumpkins growing in farmer's fields along the trolley line.¹⁰

Because of their sprawling nature many period seedsmen thought pumpkins unfit for the garden. Their tendency to hybridize with other curcubits also made them undesirable in the garden. These other crops, e.g. cucumbers, melons and squashes, were considered more valuable than the pumpkin and any hybridization that occurred would ruin any seed saved for the following year. It could also affect the taste of their fruit.¹¹ The proper place for planting pumpkins was among the corn in the field.¹²

As pumpkins seemed to be such an unimportant crop and one that took up a great deal of space, they should be

omitted or only grown in alternate years if interpretation of the Halloween and Thanksgiving holidays are attempted.

Miss Cheyney also mentioned that her family grew a winter squash -- the Hubbard, but they ate it fresh rather than store it for the winter.¹³ Another informant did not recall seeing winter squash grown in the gardens around the powderyards.¹⁴ No other mention was made of growing or storing winter squash although it was available in seed catalogs of the period.

Culture

These vigorous vining plants are heavy feeders and are sensitive to freezing temperatures. They will only grow well under warm conditions, and "as they make a very rapid growth there is no necessity of haste in geting the seed into the ground."¹⁵ Burr suggested planting the seed after all danger of frost was past and the ground had warmed.¹⁶ "As the young plants are so sensitive to cold, we seldom put in the seed before the middle of May, when the ground is warm and the weather settled."¹⁷

Any good, well-enriched soil is adapted to the growth of the squash. The hills should be made from eight to ten inches in depth, two feet in diameter, and then filled within three or four inches of the surface with well digested compost; afterward adding sufficient fine loam to raise the hill an inch or two above the surrounding level. On this plant twelve or fifteen seeds, covering about three fourths of an inch deep... The dwarfs may be planted four feet apart; but the running

sorts should not be less than six or eight... When the seedlings are free from destruction by insects, thin to the strongest three plants per hill.¹⁸

In 1872, Dreer's Garden Calendar advised its customers to plant pumpkins in May in hills eight to ten feet apart.¹⁹

This 'hilling' up of the soil is done to warm the soil quickly for the benefit of this heat-loving crop.

Harvest & Storage

Summer squash should be picked as needed when they reach the desired size. Do not let any fruits mature on the vines as production then ceases. No evidence was discovered that indicated that summer squash was preserved for winter use.

Allow winter squash to mature on the vine. Gather the fruits before frost and let them sit outdoors in a protected spot for a few days to cure and harden the skin. Handle these fruits very carefully during harvest so as not to bruise them and shorten their storage life. Store in a cool, dry area.²⁰

"Seed saving would be difficult for curcubits as they cross readily and isolation would be impossible in a small kitchen garden."²¹ Regardless of this advice, one informant remembered saving seed from pumpkins from year to year.²² Another's father saved seed of selected zucchini.²³

Pests & Diseases

Aphids, Cabbage Looper, Stripped and Spotted Cucumber Beetle, Squash Bug, Squash Vine Borer, Anthracnose, Alternaria Leaf Spot, Damping Off, Bacterial Wilt, Mosaic, Powdery Mildew, Fruit Rots form a long list of pests and diseases that can affect squash.²⁴

In my experience the most common enemies include the squash vine borer, squash bug, striped cucumber beetle, downy mildew and blossom end rot. Many nineteenth century seed catalogs recommend overcoming many insect problems by sowing more seed than is necessary and then thinning the crop when it has developed true leaves and is better able to hold its own against insect damage.²⁵ ²⁶

The Striped Bug <u>Coreus</u> <u>tristis</u> often destroys the young plants just as they appear above the ground. To get rid of these very troublesome little pests, we sprinkle the surface of the hills and the leaves of the plants with a fine flour of bone once every two days. If this does not drive the bugs off we water the vines with the solution of tobacco, &c, early in the morning, and then, immediately after, dust the plants with the bone or superphosphate.

As fast as the young vines grow, the earth should be drawn around the stems, for the bugs will destroy these by perforating them.²⁷

Recommended Variety -- Summer Squash

White Bush Scallop (syn. Pattypan, White Summer Scallop) (See Figures 62,63)

Two informants recalled the White Bush Scallop squash growing in their family's gardens when they were children.²⁸ 29

"Earliest in maturity. The "Cymling" of the Southern States. Not surpassed by any."³⁰

"Early White Bush is one of the earliest and best kinds for market or home use."³¹

(Early White Bush Scolloped) This is a sub-variety of the Early Yellow Bush Scolloped. The plant has the same dwarf habit, and the fruit is nearly of the same size and forms. The principal distinction between the varieties consists in the difference in color.

By some, the white variety is considered a little inferior in fineness of texture and in flavor to the yellow; though the white is much the more abundant in the markets. Both of the varieties are hardy and productive; and there is but little difference in the season of their maturity.

... Plant dwarf, of rather erect habit, and about two feet and a half in height; leaves large, clear-green; fruit somewhat of a hemispherical form, expanded at the edge, which is deeply and very regularly scolloped. When suitable for use, it measures about five inches in diameter, and three inches in depth; but, when fully matured, the diameter is often ten or twelve inches, and even upwards. Color yellow; skin while young, thin, and easily pierced, -- at maturity, hard and shell-like;; flesh pale-yellow, tolerable fine-grained, well flavored, -- not, however, quite so dry and sweet as that of the Summer Crookneck; seeds broader in proportion to their length than the seeds of most varieties, and of comparatively small size.³²

White bush scallop is a variety frequently grown and commonly available today.

Documentation

Burpee 1883 Landreth 1876 Vick 1872,1880 Dreer 1872 Parker & White 1852

Commercial Sources

The Garden Seed Inventory lists:

Arco Seed Co. Bonanza Seeds W. Atlee Burpee Co. Burrell Seed Growers Co. Comstock, Ferre & Co. De Giorgi Co., Inc. Ferry-Morse Seed Co. Hastings Hollar & Company, Inc. Island Seed Co., Ltd. Kilgore Seed Co. Landreth Seed Co. Livingston Seed Co. Mellinger's Inc. Mountain Valley Seeds and Nursery Buckerfields Midwest Seed Growers Meyer Seed Co. J.B. Rice, Jr., Inc. Martin Rispens and Sons P.L. Rohrer and Bro., Inc. Rocky Mountain Seed Co. Bountiful Gardens

Rocky Mountain Seed Co. Roswell Seed Co. R.H. Shumway Siegers Seed Co. Swedesboro Seed Co. Geo. Tait and Sons, Inc. Tillinghast Seed Co. Wyatt-Quarles Seed Co. Indiana Seed Co. Crosman Seed Corp. Southern States Corp. Standard Seed Co. Southern Exposure Seed Exchange Allen, Sterling & Lothrop Oral Ledden and Sons Peace Seeds Seeds Blum Mountain Valley Seeds and Nursery

Other companies that carried this variety of seed in their 1983 catalogs are:

Good Seed Co. Wetsel Seed Co. J.H. Hudson Seedsman, World Seed Service

Private Sources

The Seed Saver's Exchange 1987 Winter Yearbook lists: Gwen M. Wilson, 634 N. 11th St. Chariton, Iowa 50049 Ron Joyner, Rt. 2 Box 74-A, Apex, North Carolina 27502

Recommend Variety -- Winter Squash

Hubbard (syn. Warted Green Hubbard, Good Green Hubbard) (See Figures 64,65)

"The best winter squash is the Hubbard, and if pure and well ripened, and decently cooked, it is almost as good as the Sweet Potato."³³ Quinn recommended the Hubbard as a good variety for garden culture.³⁴

Plant similar in character and appearance to that of the Autumnal Marrow; fruit irregularly oval, sometimes ribbed, but often without ribmarkings, from eight to ten inches in length, seven or eight inches in diameter, and weighing from seven to nine pounds, -- some specimens terminate quite obtusely, others taper sharply towards the extremities, which are frequently bent or curved; skin, or shell, dense and hard, nearly one eighth of an inch thick, and overspread with numerous small protuberances; stem fleshy, but not large; color variable, always rather dull, and usually clay-blue or deep olive-green, -- the upper surface, if deprived of light, becoming orange-yellow; flesh rich salmon-yellow, thicker than that of the Autumnal Marrow, fine-grained, sweet, dry, and of most excellent flavor, -- in this last respect resembling that of roasted or boiled chestnuts; seeds white, -- similar to those of the Autumnal Marrow. Season from September to June; but the flesh is dryest and sweetest during autumn and the early part of the winter...

... The Hubbard Squash should be grown in hills seven feet apart, and three plants allowed to a hill. It is essential that the planting be made as far as possible from similar varieties, as it mixes, or hybridizes, readily with all of its kind. $^{\rm 35}$

Documentation

Burpee 1883	Dreer	1872
Landreth 1876,1884	Vick 3	1872

Commercial Sources -- True Hubbard

The Garden Seed Inventory lists:

Abundant Life Seed FoundationJordan SeedsBurgess Seed and Plant CompanyMellinger's SeedsBonanza SeedsOlds Seed Co.W. Atlee Burpee Co.Olds Seed Co.

Private Sources

The Seed Saver's Exchange 1987 Winter Yearbook lists: Louis Bastable, 24 Acorn St., Middleton, MA 01949

Recommended Variety -- Pie or Jack-o'-Lantern Pumpkin

Large Cheese (See Figure 67)

"A very good table variety. Shape flat, like a cheese-box; a good keeper."³⁶

"...size large, skin reddish orange; flesh thick, fine and sweet;..."³⁷ Quinn stated that the Cheese Pumpkin was used extensively for pies. He recommended growing them among the corn or on waste land.³⁸

The plants of this variety are remarkably strong and vigorous, with large, deep green leaves. The fruit is much flattened, deeply and rather regularly ribbed, broadly dishing about the stem, and basin-like at the opposite extremity.

It is of large size; and, when well grown, often measures fifteen or sixteen inches in diameter, and nine or ten inches in depth. Skin fine, deep reddish-orange, and, if the fruit is perfectly matured, guite hard and shell-like; flesh very thick, yellow, fine-grained, sweet, and well flavored. The seeds are not distinguishable from those of the Common Field Pumpkin. The Cheese Pumpkin is hardy, remarkably productive, and much superior in all respects to most of the field grown sorts...it was extensively disseminated in the Middle States at the time of the American revolution,... After a lapse of more than seventy five years, during which time it must have experienced great diversity of treatment and culture, -- it still can be found in its original type; having the same form, color, size, thickness and quality of flesh, which it possessed at the time of its introduction.³⁹

Documentation

Bridgeman 1837 Landreth 1876 Vick 1880 Dreer 1872 Parker & White 1852

Commercial Sources

The Garden Seed Inventory lists:

DeGiorgi

Peace Seeds

However, the descriptions they give of the color of the fruit does not conform to that of Burr. "Flat like a cheese box, buff colored, very meaty, fine flavored, keeps well, 16" across, popular in the south,.."⁴⁰ Try these two sources and compare the results to the nineteenth century descriptions. If they do not match, try to locate a true source or use the Connecticut Field Pumpkin. Recommended Variety -- Pie or Jack o' Lantern

Connecticut Field Pumpkin (See Figure 66)

A large, yellow, field variety, not unlike the Common Yellow in form, but with a softer skin or shell. It is prolific, of fair quality as an esculent, and one of the best for cultivating for stock or agricultural purposes.⁴¹

Common Yellow Field Pumpkin - . . . fruit rounded, usually a little more deep than broad, flattened at the ends, and rather irregularly, and more or less prominently ribbed...-Average specimens will measure about fourteen inches in diameter. Color rich, clear orange-yellow; skin, or rind, if the fruit is well matured, rather dense and hard; flesh, variable in thickness, but averaging about an inch and a half, of a yellow color, generally coarse-grained, often stringy, but sometimes of a fine texture, dry, and of good quality; seeds of medium size, cream-yellow.⁴²

The Common Yellow Field Pumpkin was recommended mainly for agricultural uses by the nineteenth century sources. Burr does say however that is was used extensively as a vegetable and for piemaking during the early history of the United States.⁴³

"The pumpkin is now little used, except for agricultural purposes, the Squashes being so much sweeter and drier, and finer grained for the kitchen."⁴⁴

Documentation -- Common Yellow, Large Common Yellow

 Bridgeman 1837
 Burpee 1883

 Dreer 1872
 Landreth 1874,1876,1884

 Parker & White 1852
 Landreth 1874,1876,1884

Documentation--Connecticut Field Pumpkin

Vick's Floral Guide 1872,1880

Commercial Sources

The Garden Seed Inventory lists:

Allen, Sterling & Lothrop Farmer Seed & Nursery Co. Alberta Nurseries and Seeds Ltd. Henry Field Seed & Henry Field Seed & Nursery Co. Gateway Seed Co. Asgrow Seed Co. Gurney's Seed & Nursery Butterbrooke Farm Hastings Halifax Seed Co., Ltd. Behm & Hagemann, Inc. Hollar and Co., Ltd. Bishop Farm Seeds Burrell Seed Growers, Inc. Chas. C. Hart Seed Co. W. Atlee Burpee Co. Ernest Hardison Seed Co. Comstock, Ferre Co. Ed Hume Seeds California Gardeners Seed Co. Indiana Seed Co. Crockett Seeds Island Seed Co., Ltd William Dam Seeds Ltd. Jenkins Seed House De Giorgi Co., Inc. Jordan Seeds Arco Seed Co. and many more...

The Connecticut Field Pumpkin is commonly offered by many other seed companies and should be obtained easily.

Private Sources

The Seed Saver's Exchange 1987 Winter Yearbook lists:

Brad Lindner, Olmsted Historical Center, P.O. Box 6411 Rochester, MN 55903

Mary E. Klug, Old World Wisconsin, S103 W37890 Hwy. 67, Eagle, WI 53119 183

FOOTNOTES

¹Cheyney, Interview, 15 February 1984. ²Seitz, Interview, 13 May 1984. ³Meriggi, Interview, 24 July 1984. ⁴Cheyney, Interview, 15 February 1984. ⁵Cammock, Interview, 24 July 1984. ⁶Yetter, Interview, 25 July 1984. ⁷Meriggi, Interview, 24 July 1984. ⁸Cheyney, Interview, 26 March 1984. ⁹Yetter, Interview, 25 July 1984. ¹⁰Gamble, Interview, 24 April 1981. ¹¹Landreth's Rural Register and Almanac, Philadelphia, 1874, p. 78. ¹²Buist, Kitchen Gardener, p. 105. ¹³Cheyney, Interview, 15 February 1984. ¹⁴Seitz, Interview, 13 May 1984. ¹⁵Buist, Kitchen Gardener, p. 105. ¹⁶Burr, Vegetables of America, p. 197. ¹⁷Quinn, Money, p. 230. ¹⁸Burr, <u>Vegetables of America</u>, p. 197. ¹⁹Dreer's, 1872, p.22. ²⁰Green, <u>Vegetable Gardening</u>, p. 213. ²¹Burr, Vegetables of America, p. 210. ²²Biddle, Interview, 23 March 1983. ²³Meriggi, Interview, 20 June 1984.

²⁴Boys, Guidelines, p. 8-9. ²⁵Dreer's, 1891, p. 38. ²⁶Parker and White, 1852, p. 96. ²⁷Quinn, <u>Money</u>, p. 137. ²⁸Cheyney, Interview, 15 February 1984. ²⁹Meriggi, Interview, 24 July 1984. ³⁰Landreth's, 1884, p. 76. ³¹Quinn, <u>Money</u>, p. 231. ³²Burr, <u>Vegetables of America</u>, p. 199-200. ³³Vick's, 1875, p. 100. ³⁴Quinn, <u>Money</u>, p. 232-33. ³⁵Burr, <u>Vegetables of America</u>, p. 209-10. ³⁶Landreth's, 1884, p. 78. ³⁷Vick's, 1872, p. 109. ³⁸Quinn, Money, p. 216. ³⁹Burr, <u>Vegetables of America</u>, p. 191-92. ⁴⁰Whealy, <u>Inventory</u>, p. 364. ⁴¹Burr, <u>Vegetables of America</u>, p. 193. ⁴²Burr, <u>Vegetables of America</u>, p. 192. ⁴³Burr, <u>Vegetables of America</u>, p. 192-93. ⁴⁴Vick's, 1880, p. 85.

TOMATO Lycopersicon esculentum

Bruno 3/12/1981, 6/11/1984; Cammock 7/24/1984; Cheyney 4/3/1964, 12/19/1983, 3/26/1984; Fitzharris 1969; Gamble 4/24/1981; Hudson 8/1/1968; Kauss 2/17/ 1981; Lattomus and Walls 6/12 & 25/1969; Leto 5/25/1983; Meriggi 6/10/1984, 6/20/1984, 7/24/1984; Seitz 5/13/1984; Smith 2/15/1984; Yetter 7/25/1984

This tender annual vining plant was a relatively new vegetable in the United States in the early part of the nineteenth century, but rapidly gained in popularity as Buist notes in 1847:

In taking retrospect of the past eighteen years; there is no vegetable on the catalogue that has obtained such popularity in so short a period as the one now under consideration. In 1828-9 it was almost detested; in ten years more every variety of pill and panacea was 'extract of Tomato'. It now occupies as great a surface of ground as Cabbage, and is cultivated the length and breadth of this country. As a culinary dish it is on every table from July to October. It is brought to the table in an infinite variety of forms, being stewed and seasoned, stuffed and fried, roasted and raw, and in nearly every form, palatable to all. It is also made into pickles, catsup and salted in barrels for Winter use, so that with a few years more experience, we may expect to see it as an every day dish from January to January.¹

Even in the early 1900's, its familiarity was not ubiquitous as was noted by Catherine Cheyney who relayed

that her Irish born mother had never tasted a tomato in her native land. Her first taste of this fruit was in the United States and she described it as "awful".²

To a majority of tastes, its flavor is not at first particularly agreeable; but by those accustomed to its use, it is esteemed one of the best, as it is also reputed to be one of the most healthful, of all garden vegetables.³

Nevertheless, judging from the responses of the informants, it was one of the more popular vegetables in their family gardens.⁴ "Pret near everyone had a few tomato plants around the house someplace in the yard, whether they had a garden or not."⁵ Large, round, red tomatoes were cultivated⁶ ⁷ ⁸ as well as the yellow pear and red cherry types.⁹ ¹⁰ Miss Cheyney recalled that the red cherry types often reseeded themselves from year to year from the fallen fruit.¹¹ Another informant said that the large, yellow, round type of tomato was grown.¹² In 1847 Buist noted "There are several other fancy sorts, generally of a yellow color, which have an interest to those who are fond of variety."¹³

The tomato seemed to be a vegetable for which it was important to the powderman to obtain good seed. Two informants recalled their families saving seed for the following years crop. This was not commonly mentioned in regard to most other crops except for potatoes, where the

tubers were used from the previous year for propagation.¹⁴ ¹⁵ Late in the season farmers came around to the houses selling baskets of tomatoes for twenty five cents. The women would buy them in quantity to can for winter use.¹⁶

Culture

Burr warned that the tomato crop was often cut short by the length of the season and recommended starting the seed early.

Sufficient plants for the garden of a small family may be started with little trouble by sowing a few seeds in a garden-pan or large flower pot, and placing it in a sunny window of the sitting room or kitchen. If the seed is to be sown in this manner about the middle or the 20th of March, the plants will be of good size for setting by the time the weather will be suitable for their removal.¹⁷

Quinn also advised that tomatoes be started early so that they would be strong and stocky by mid-May when they were to be transplanted outdoors.¹⁸ One informant remembered starting tomatoes on a sunny window to get a head start on the season.¹⁹ Two others recalled members of their family buying transplants from farmers on King Street in Wilmington.²⁰ 21

Buist and other seedsmen of the period recommended the practice of sowing seed indoors in pots of rich earth in mid-March or the beginning of April to gain a two to three week jump on plants sown directly into the garden.²² 23 24

The seedlings must be hardened off before transplanting by placing the pots in a sheltered location on fair days. Transplant the seedlings on the 20th of May leaving two feet between plants and three feet between rows.²⁵

Henderson recommended buying transplants if one did not have the use of a greenhouse or hot bed, as they were sold cheaply everywhere. He said that a few dozen plants would be sufficient to supply an ordinary family of eight to ten.²⁶ Quinn recommended twenty-five to fifty plants as being enough for a family of eight to ten.²⁷

Direct seeding into the garden was also practiced to obtain a later crop. Seeds were to be sown in a protected area in April and transplanted four feet apart each way in their permanent location in the garden in June. This crop would produce until frost.²⁸

A direct-seeded general crop can be planted in a sheltered warm part of the garden at the beginning of April; sowing seeds one half of an inch deep in drills and transplanting at three or four inches high to their permanent location. Transplanting encourages a more sturdy, branched plant. Water well and protect from the sun and wind for the first few days after transplanting.²⁹

James Cammock planted his tomato transplants around May tenth when they were not so table to be hit by frost. He

put dried horse manure into each prepared hole and let it sit for two to three days before planting. He set the transplants out in the four to five inch deep holes two inches deeper than the root level of the transplant indicated that it should be planted. This he said would make a sturdier plant. He spaced his tomato plants two to two and a half feet apart. If he set them closer, he claimed that he could not see the fruit ripening.³⁰

Keep the crop weeded to avoid competition for moisture as even moisture is a key factor in the formation of perfect fruit. At the time of sowing or transplanting, insert a stake for each plant, so that you do not disturb the roots later on. Tie the main stem of the plants loosely to the stake with soft cotton twine, or scraps of fabric as they advance in growth.³¹

An article in the July 1, 1870 Delaware Gazette recommended the staking of tomatoes immediately upon transplanting to the garden. It suggested using well branched stakes, with the branches trimmed back leaving four to six inch stubs. Instructions included tying the plants loosely to the stake every six to eight inches that they advanced in growth. They recommend staking tomatoes to prevant the fruits from becoming soiled or rotten.³²

Two informants recalled that tomato plants were tied with cloth strips to stakes in the garden. String, they said, would cut into the stems. Mr. Cammock said that the tomatoes had a different taste if they were allowed to sprawl on the ground.^{33 34}

When cultivated in private gardens, the tomato-vine should always be provided with some sort of trellis, or be tacked up against a fence or wall. By this treatment, not only will a heavier crop be obtained, but the flavor will be better; when the fruit rests on the ground it has often an inferior flavor, particularly when eaten raw, and is also more apt to decay.³⁵

C. Natalie Meriggi remembered tearing old clothing into strips to be used for tying tomato plants to stakes.³⁶ Another informant said that her family used screps of string, the kind that packages would be tied in, for tying up tomatoes. These scraps were kept rolled into a ball.³⁷

The stakes used for supporting tomato plants were limbs of trees stripped of their branches much as were used for supporting bean vines. Stakes were five to six feet in height, according to Mr. Cammock, the tomato vines would not grow much taller. Sometimes the stakes even sprouted leaves.³⁸

Tomato transplants were one of the few vegetables that were watered initially upon being set out in the garden. Water was carried to the garden from the pumps located near the house. For those who lived in Squirrel Run, it was quite a distance to the gardens, so watering was done only when necessary.³⁹

One noted authority recommended that the plants bearing the earliest fruit have their tops taken off when they set fruit to encourage earlier ripening.⁴⁰ Another seedman advised the removal of the side branches or suckers and the removal of the tips of the plant on stems where fruit has formed. He said that this practice hastened ripening a week to ten days.⁴¹ There is no evidence that the powdermen practiced this technique, although it is common today for those growing staked tomatoes.

Harvest & Storage

Pick and use the fruits at they ripen. The excess was preserved by canning. Tomatoes were one of the few crops that were commonly canned for winter use.⁴² ⁴³ The process for canning tomatoes is that of a hot water bath, a more simple procedure than that necessary for other vegetables. Tomatoes have a high acid content in which harmful bacteria do not grow so the jars do not need to be pressurized in the canning process. This may be a reason why they were so commonly canned when other vegetables were stored in pits or only eaten in season.

One informant remembered her grandmother using boiling water to seal the jars.⁴⁴ Even an informant who said that his mother did not do too much canning overall said that she canned some tomatoes for the winter.⁴⁵ Mrs. Meriggi

recalled picking green tomatoes before the frost, wrapping them individually in newspaper, and setting them on a table where they ripened until Christmas.⁴⁶

Mrs. Meriggi also said that her father saved seed from selected tomatoes. He chose the larger tomatoes, squeezed the seed onto a piece of strong paper and dried them in the sun. After they were dry, he stored them in a package made of cloth onto which he wrote the name of the seed.⁴⁷

Pests and Diseases

Blister Beetle, Stalk Borer, Stink Bugs, Tomato Fruitworn, Bacterial Spot, Damping Off, Leaf Spots, Anthracnose, Cut worm, Verticillium and Fusarium Wilt, Colorado Potato Beetle, Sunscald, Uneven Moisture, Aphids, Blossom End Rot, and Hornworms can all affect tomatoes.⁴⁸ Two informants said that they had to also keep the chickens away from the ripening tomatoes.⁴⁹ 50

It was a job of the children to look for insects on tomatoes⁵¹ which again indicates the importance of this crop to the families. Tomato hornworm was an insect specifically mentioned.⁵² A long, green caterpillar was recalled which was probably also the tomato horn worm.⁵³ Buist claimed that the only cure for the tomato hornworm was handpicking.⁵⁴

Green caterpillars are not very troublesome,... They are generally immense in size and few in number, so that a tin can full of kerosene an a small stick will quickly put them out of business."⁵⁵

C. Natalie Meriggi remembered seeing little brown bugs as big as a tick on the tomatoes. These were probably Colorado Potato Beetles. Mrs. Meriggi said her father dusted the tomato vines with sulfur contained in a cheesecloth bag or handpicked the insects and squashed them underfoot.⁵⁶ Colorado Potato Beetle on tomatoes can be controlled by handpicking in most seasons.

Recommended Variety

Large, Red Tomato (See Figure 68)

"An old reliable variety, not usually so large or smooth as either 'Trophy' or 'Tilden'.⁵⁷

Fruit sometimes smooth, often irregular, flattened, more or less ribbed; size large, but varied much by soil and cultivation, -- well-grown specimens are from three to four inches in diameter, two inches and a half in depth, and weigh from eight to twelve ounces; skin smooth, glossy, and, when ripe, of a fine red color; flesh pale red, or rose color, -- the interior of the fruit being comparatively well filled; flavor good. Not early, but one of the most productive of all of all the varieties; the plants, when properly treated, producing from twelve to fifteen pounds From the time of the introduction of the each. Tomato to its general use in this country, the Large Red was almost the only kind cultivated, or even commonly known. the numerous excellent sorts now almost everywhere disseminate, including the Large Red Oval, Fejee, Seedless, Giant, and Lester's Perfected, are but improved

sub-varieties, obtained from the Common Large Red by cultivation and selection.⁵⁸

A French seedman describes the variety, which he said the English claimed was synonymous with the Large Red Italian, Orangefield, Mammoth, or Fiji Island Tomato:

Large, Red Tomato,--Plant vigorous growing; leaves rather broad, dark green; leaflets somewhat puckered and folded at the edges; fruit in bunches of from two to four, very large, flattened at the ends, irregularly ribbed, 3 to 4 inches wide, 2 inches or less deep, and of a fine deep-scarlet colour. A very productive variety,...⁵⁹

Documentation

Buist 1853		Landreth	1874,1883
Parker & White	1852	Vick 1873	2,1880

Commercial Sources

The Garden Seed Inventory lists:

Swedesboro Seed Co.

Redwood City Seed Co. carried this variety in their 1983 catalog.

Private Sources

The Seed Saver's Exchange 1987 Winter Yearbook lists: Chas. E. Estep, Sr.3751 Lofton Place, Riverside, CA 92501
Recommended Variety

Red Cherry

A small, red Tomato, nearly spherical, and about half an inch in diameter. The fruit is produced in great profusion, in large bunches, or clusters, but is comparatively of little value, on account of its small size. It is sometimes used as a preserve, and by some esteemed for pickling.-60

"They are said to closely resemble the primitive wild form of tomato and were grown in Europe at an early period."⁶¹ Quinn stated that the pear-shaped and cherry tomatoes were popularly grown for pickling.⁶²

Documentation

Parker &	White 1852	Vick's 1872,1875,1880
Landreth	1874,1876,1884	Dreer 1872

Commercial Sources

The Garden Seed Inventory lists:

Aqway, Inc. Abundant Life Seed Foundation Butterbrooke Farm W. Atlee Burpee Co. Comstock, Ferre & Co. California Gardeners Seed Co. Crockett Seeds De Giorgi Co., Inc. Arco Seed Co. Early's Farm & Garden Center Fredonia Seed Co. Good Seed Co. H.G. German Seeds, Inc. Halifax Seed Co., Ltd. Ernest Hardison Seed Co. Ed Hume Seeds Kilgore Seed Co. Landreth Seed Co

Pinetree Garden Seeds Redwood City Seed Co. Roswell Seed Co. Sanctuary Seeds Geo. Tait and Sons, Inc. Territorial Seed Co. Tregunno Seeds, Ltd. Vita-Green Farms, Inc. Westwind Seeds Willhite Seed Co. J.L. Hudson, Seedsmen Wyatt-Quarles Seed Co. Island Seed Co., Ltd. P.L. Rohrer & Bro., Inc. Long Island Seed & Plant Bunch's Botzum Seed Co. Crosman Seed Corp.

Letherman's Inc. Long Island Seed and Plant Mellinger's Inc. Meyer Seed Co. Olds Seed Co. Wetsel Seed Co. Herbst Bros. Seedsmen, Inc. McLaughlin's Seeds Germania Seed Co. Chas. H. Lilly Co. Nationwide Seed & Supply Pony Creek Nursery Porter Walton Saunders Seed Co., Inc. The Ohio Seed Co.

Private Sources

The Seed Saver's Exchange 1987 Winter Yearbook lists:

No Sources

Recommended Variety

Yellow Pear

A sub-variety of the Red Pear-shaped, with a clear, semi-transparent, yellow skin, and yellow flesh. ...it is little used except for preserving and pickling.⁶³

Documentation

Vick's 1872,1880 Landreth 1874,1883,1884 Parker & White 1852

Commercial Sources

The Garden Seed Inventory lists:

Abundant Life Seed Foundation Archias' Burgess Seed and Plant Co. W. Atlee Burpee Co. California Gardeners Seed Co. William Dam Seeds, Ltd. De Giorgi Co., Inc. Early's Farm and Garden Center Henry Field Seed and Nursery Gateway Seed Co. Gleckler's Seedsmen Chas. C. Hart Seed Co. Porter & Son, Seedsmen W.H. Perron Co., Ltd. Pinetree Garden Seeds Rocky Mountain Seed Co. Roswell Seed Co. Tregunno Seeds Ltd. Vaughn's Seed Co. J.L. Hudson, Seedsman Good Seed Co. Olds Seed Co. Page Seed Co. Willhite Seed Co. Ernest Hardison Seed Co. Ed Hume Seeds Landreth Seed Co. Letherman's Inc. Liberty Seed Co. Long Island Seed and Plant Earl May Seed and Nursery Co. Midwest Seed Growers Meyer Seed Co. Nichols Garden Nursery Petoseed Co. Fisher's Garden Store Germania Seed Co. Harpool Seed Co. High Altitude Gardens Lockhart Seeds, Inc. Porter-Walton Standard Seed Co. Wetsel Seed Co., Inc. Saunders Seed Co., Inc. Le Marche Seeds International

Private Sources

The Seed Saver's Exchange 1987 Winter Yearbook lists:

Charles E. Estep Sr., 3751 Lofton Place, Riverside, CA 95617 Dorothy Beiswenger, Rt. 2, Crookston, Minnesota 56716

Mr. and Mrs. Warren Rice, Rt. 5, Box 28B, Austin, Minnesota 55912

Mrs. Mildred M. Fortney, 7680 Anthony Highway, Waynesboro, PA 17628

James D. Johnson, 2308 Bloomingdale Pike, Kingsport, TN 37660

John Wyncoll, 21 Harwood St., Darwen, Lancashire, England BB3 1PE

FOOTNOTES

¹Buist, K<u>itchen Gardener</u>, p. 125-26. ²Cheyney, Interview, 15 February 1984. ³Burr, Vegetables of America, p. 628. ⁴Meriggi, Interview, 24 July 1984. ⁵Yetter, Interview, 25 July 1984. ⁶Meriggi, Interview, 24 July 1984. ⁷Smith, Questionnaire, 15 February 1984. ⁸Yetter, Interview, 25 July 1984. ⁹Cheyney, Interviews, 15 February 1984, 26 March 1984. ¹⁰Smith, Questionnaire, 15 February 1984. ¹¹Cheyney, Interviews, 15 February 1984, 26 March 1984. ¹²Yetter, Interview, 25 July 1984. ¹³Buist, <u>Kitchen Gardener</u>, p. 126. ¹⁴Cheyney, Interview, 19 December 1983. ¹⁵Meriggi, Interviews, 20 June 1984, 24 July 1984. ¹⁶Yetter, Interview, 25 July 1984. ¹⁷Burr, Vegetables of America, 629-30. ¹⁸Quinn, <u>Money</u>, p. 243. ¹⁹Seitz, Questionnaire, 15 February 1984. ²⁰Cammock, Interview, 24 July 1984. ²¹Yetter, Interview, 25 July 1984. ²²Buist, Kitchen Gardener, p. 127. ²³Vick's, 1872, p. 77.

²⁸Quinn, Money, p. 243-44. ²⁹Burr, Vegetables of America, p. 629. ³⁰Cammock, Interview, 24 July 1984. ³¹Griffith, Vegetable Garden Handbook, p. 118. ³²Delaware Gazette, Wilmington, DE, 1 July 1870, p. 2. ³³Cammock, Interview, 24 July 1984. ³⁴Seitz, Questionnaire, 15 February 1984. ³⁵Henderson, <u>Pleasure</u>, p. 221. ³⁶Meriggi, Interview, 24 July 1984. ³⁷Cheyney, Interview, 23 January 1984. ³⁸Cammock, Interview, 24 July 1984. ³⁹Yetter, Interview, 25 July 1984. ⁴⁰Buist, <u>Kitchen Gardener</u>, p. 127. ⁴¹Vick's, 1875, p. 112. 42Lattomus and Walls, Interview, 12,25 June 1960. ⁴³Meriggi, Interview, 24 July 1984. ⁴⁴Yetter, Interview, 25 July 1984. ⁴⁵Cammock, Interview, 24 July 1984. ⁴⁶Meriggi, Interview, 24 July 1984. ⁴⁷Meriggi, Interview, 24 July 1984. ⁴⁸Boys, Guidelines, p. 15-16.

²⁴Landreth's Rural Register and Almanac, Philadelphia, 1874, p. 81.

²⁵Buist, Kitchen Gardener, p. 128.

²⁶Henderson, Pleasure, p. 221.

²⁷Quinn, Money, p. 266.

⁴⁹Cheyney, Interview, 19 December 1983.

⁵⁰Meriggi, Interview, 24 July 1984.

⁵¹Meriggi, Interview, 24 July 1984.

⁵²Seitz, Interview, 13 May 1984.

⁵³Seitz, Interview, 13 May 1984.

⁵⁴Buist, <u>Kitchen Gardener</u>, p. 128.

⁵⁵Edith Loring Fullerton, <u>How To Make A Vegetable</u> <u>Garden</u>, New York: Doubleday, Page and Company, 1913, p. 266.

⁵⁶Meriggi, Interview, 24 July 1984.

⁵⁷Landreth's, 1884, p. 78.

⁵⁸Burr, <u>Vegetables of America</u>, p. 636.

⁵⁹Vilmorin-Andrieux, <u>The Vegetable Garden</u>, p. 568.

⁶⁰Burr, <u>Vegetables of America</u>, p. 630.

⁶¹Robert F. Becker, "Tomatoes", Geneva, NY: New York State Experiment Station, New York Cooperative Extension Service, 4 March 1981, p. 1.

⁶²Quinn, <u>Money</u>, p. 243.

⁶³Burr, <u>Vegetables of America</u>, p. 642.

TURNIP Brassica Rapa

Cammock 7/24/1984; Cheyney 4/3/1964, 12/19/1983, 1/23/1984; Meriggi 7/24/1984; Seitz 5/13/1984; Yetter 7/25/1984

Three informants mentioned the presence of turnips in their family's garden as children.¹ ² ³ In a second interview Miss Cheyney said that her father did not have any luck growing turnips and that the purchased their supply from O'Neill's in Mount Cuba.⁴ Two said that their families did not grow turnips.⁵ ⁶

Miss Cheyney described the turnips her family grew as round, not purple-skinned, yellow-fleshed and taking a long time to mature.⁷ Mrs. Yetter said that as a child she pulled turnips from the garden with her friends. The children peeled them with their teeth and ate them on the spot. The roots were about two inches in diameter with purple and white skin and white flesh.⁸ The third informant recalled her family planting a few white and purple skinned turnips with white flesh.⁹

The evidence suggests that turnips are an appropriate crop for the worker's garden at the Gibbons House.

It did not seem to be a major crop grown in the garden for most families and it probably depended on the family's tastes as to whether or not and to what extent this vegetable was grown. Plant the crop in alternate years.

Culture

All the sorts are propagated by seeds, which should be sown where the plants are to remain, as they do not generally succeed well when transplanted. Sowings for early use may be made the last of April, or beginning of May; but as the bulbs are seldom produced in perfection in the early part of the season, or under the influence of extreme heat, the sowing should be confined to a limited space in the garden. The seeds may be sown broadcast or in drills, they should be made about fourteen inches apart, and half an inch The young plants should be thinned to in depth. five or six inches asunder. For a succession, a few seeds may be sown, at intervals of a fortnight, until the last week in July; from which time until the 10th of August, the principal sowing is usually made for the winter's supply.¹⁰

Mrs. Yetter remembered the turnips being "sowed" or broadcast planted. A handful of seed was scattered rather than lined out in straight rows or drills. She also recalled that although her family did not do much replanting in the garden after crops were harvested, the turnips were "late planted".¹¹ Walt Biddle said that the turnip bed in his father's garden was a strip six feet wide.¹² Rapidly maturing crops such as lettuce or spinach were replanted or replaced with late crops such as turnips.¹³ 14

Given the evidence that turnips were frequently stored for the winter, Mrs. Yetter's memory of the turnips being "late planted" and the minor importance of this vegetable to the powdermen, I do not believe that turnips were planted for succession all through the season. I suggest limiting the planting to one main crop sown during the first week in August.¹⁵ Broadcast the seed covering it with one half inch of soil and thin the seedlings to five to six inches apart according to Burr's instructions.

Harvest & Storage

As Turnips are grown principally for consumption during the winter and early spring, a few brief hints on their preservation is necessary. Take up the roots in November, cut the tops to within an inch of the crown. Those for winter use are stored away in a cool cellar or pit, and covered over with a few inches of dry earth.¹⁶

Burr also recommended that turnips be left in the ground to be dug as needed until just before the ground had frozen solid sometime in November.¹⁷ At that time the bulk of the crop was dug and the soil wiped from the roots. One family stored them in a cool backroom, as the house had no basement.¹⁸ To store her family's yellow turnips, Catherine Cheyney's family dug pits in the soft earth of their vegetable garden approximately three feet deep and

two feet wide. They then covered the vegetables with soil.¹⁹ Another informant recalled that one person stored

both turnips and carrots in a similar garden pit covered with straw and soil.²⁰ When guestioned about using straw and soil to protect the stored turnips, Miss Cheyney answered that straw would have to be purchased and so it was not used.²¹ She said that the turnips stored quite well with the method they used.²² Her family was so large that they used their supply up quickly.²³ They marked the center of the pit a wooden stake and wrote the name of the crop on the stake in order to locate the site during the winter under cover of snow. Catherine Cheyney's family had a basement where they stored potatoes in a bin, but they chose to store their turnips outdoors in a pit.²⁴ Exposure to frost is said to make turnips sweeter, and this may be why the garden site was preferred over the basement for the storage of turnips. This method is still used today by gardeners in the Wilmington area.

Turnips for he table may be drawn directly from the garden or field until November, but must be harvested before severe freezing weather; for, though comparitively very hardy, few of the varieties withstand the winters of the Northern or Middle States in the open ground. The crop should therefore be harvested in October or November, and stored for the winter out of danger of freezing. Most of the sorts now cultivated retain their freshness and solidity till spring, and some even into summer; requiring no particular care in their preservation, other than that usually given to the carrot or potato.²⁵

Pests & Diseases

Flea beetles and root maggots commonly affect the turnip crop. James Vick advised sowing twice as much seed as was needed and then thinning out the crop to five or six inches apart when the plants were a few inches in height. Those plants that remained were strong enough to hold their own against insects.²⁶

The little black flea, or Turnip beetle, is very destructive when the plants are in the seed leaf, but with a fair season and a rich soil the plants are soon in rough leaf, when they are troubled no longer."²⁷

Recommended Variety -- Yellow Fleshed Turnip

Golden Ball (syn. Yellow Globe) (See Figure 72)

Miss Cheyney said that her family grew yellow-fleshed turnips.²⁸

"(Yellow Globe)... an excellent smooth, yellow, round Turnip, of large size; known in some places as Golden Ball."²⁹

Bulb produced mostly within the earth, nearly globular and very smooth and symmetrical; skin bright yellow below ground, greenish above; leaves comparatively small, spreading; flesh pale yellow, sweet and well flavored, but not as fine grained as that of many other varieties. It is a good table turnip; and with the Robertson's Golden Stone, which it greatly resembles, the most valuable for cultivation where large-sized garden turnips are required. Its size is about that of the last named. Average specimens measure four inches in diameter, nearly the same in depth, and weigh from twelve to fourteen ounces.

Documentation

Burpee 1880	Dreer	1872
Henderson 1875	Vick 1	.872

Commercial Sources

The Garden Seed Inventory lists under Golden Ball:

Good Seed Company Peace Seeds Gaze Seed Company, Ltd.

Listed under Yellow Globe --

Charles C. Hart Seed Co. Vita-Green Farms, Inc.

Private Sources

The Seed Saver's Exchange 1987 Winter Yearbook lists:

Mr. John Wyncoll, 21 Harwood Street, Darwen, Lancashire, England BB3 1PE.

Recommended Variety -- White Fleshed Turnip

Purple-Top, Strap-leaved (syn. Red-Top, Strap-leaved)
(See Figures 69-72)

Two prominent nineteenth century seedsmen listed this variety as one of the best sorts for the home garden.³¹ 32

The last named sort (Strap-leaf Red Top) which is extensively grown, will, on well-prepared soil, attain full size in much the shortest time. In 1866 we sowed a field of this kind between the 10th and the 15th of September, and in ninety days we gathered a fine crop of turnips.³³

Bulb very flat, smooth, and regular in form, produced almost entirely above ground; tap-root slender: leaves few, upright, broad, rounded at the ends and tapering to the neck, which is very small; skin above, clear, bright purple, -- below, pure white, often finely clouded or shaded at the union of the colors; flesh clear white, firm, solid, sugary, mild, and remarkably well-flavored; size medium, -- measuring about two inches and a half in depth by four or five inches in diameter, and weighing from ten to twelve ounces. Field grown roots, with the benefit of a long season and rich soil, attain much greater dimensions; often, however, greatly deteriorating in quality as they increase over the average size. This variety is unquestionably one of the best of the flat turnips, either for the garden or field. It is early, hardy, very prolific, will thrive in almost any description of soil, is of excellent quality, and rarely fails to yield a good crop. It is the best of all the flat turnips for sowing among corn or potatoes, or upon small patches of the garden from which early peas or beans have been harvested.34

Documentation

Burpees 1880,1883 Landreth 1874,1876 Dreer 1872 Vick's 1880,1875

Commercial Sources

The Garden Seed Inventory lists:

Saunders Seed Co., Inc.		
Arco Seed Co.		
Behm and Hagemann, Inc.		
Farmer Seed and Nursery Co.		
Northrup King Co.		
Olds Seed Co.		
Eckroat Seed Co.		
Porter and Sons, Seedsmen.		
J.B. Rice, Jr., Inc.		

Tillinghast Seed Co. Botzum Seed Co. Bunch's Geo. W. Hill & Co. Chas. C. Hart Seed Co. Indiana Seed Co. Letherman's Inc. Livingston Seed Co.

Private Sources

The Seed Saver's Exchange 1987 Winter Yearbook lists: Fay Jackman, P.O. Box 588, Northport, WA 99157

FOOTNOTES

¹Cheyney, Interview, 3 April 1964. ²Meriggi, Interview, 24 July 1984. ³Yetter, Interview, 25 July 1984. ⁴Cheyney, Interview, 26 March 1984. ⁵Cammock, Interview, 24 July 1984. ⁶Seitz, Interview, 13 May 1984. ⁷Chevney, Interview, 26 March 1984. ⁸Yetter, Interview, 25 July 1984. ⁹Meriggi, Interview, 24 July 1984. ¹⁰Burr, Vegetab<u>les of America</u>, p. 92. ¹¹Yetter, Interview, 25 July 1984. ¹²Biddle, Interview, 23 March 1983. ¹³Seitz, Interview, 13 May 1984. ¹⁴Yetter, Interview, 25 July 1984. ¹⁵Henderson, <u>Pleasure</u>, p. 221. ¹⁶Dreer's, 1872, p. 25. ¹⁷Burr, Vegetables of America, p. 98. ¹⁸Yetter, Interview, 25 July 1984. ¹⁹Cheyney, Interview, 23 January 1984. ²⁰Seitz, Interview, 25 July 1984. ²¹Cheyney, Interview, 26 March 1984. ²²Cheyney, Interview, 15 February 1984. ²³Cheyney, Interview, 26 March 1984. ²⁴Cheyney, Interview, 23 January 1984.

²⁵Burr, <u>Vegetables of America</u>, p. 98.
²⁶<u>Vick's</u>, 1880, p. 80.
²⁷<u>Vick's</u>, 1875, p. 102.
²⁸Cheyney, Interview, 26 March 1984.
²⁹<u>Vick's</u>, 1880, p. 89.
³⁰Burr, <u>Vegetables of America</u>, p. 101.
³¹Henderson, <u>Pleasure</u>, p. 221.
³²Quinn, <u>Money</u>, p. 266.
³³Quinn, <u>Money</u>, p. 246.

³⁴Burr, <u>Vegetables of America</u>, p. 105.

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APPENDIX A

Figures



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Photograph H1-9 Figure 4.



Asparagus Varieties

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Figure 7. 'Conover's Colossal' Dreer, 1891, p. 5

Figure 6. 'Conover's Colossal' Quinn, <u>Money In The Garden</u>, p. 43.


Figure 8. **'Large Lima Kidney Bean'** (1/12 natural size) Vilmorin-Andrieux, <u>The Vegetable Garden</u>, p. 73



Figure 10. 'Refugee' Vick's Floral Guide, 1872, p. 90.



Figure 12. 'White Dutch Case-knife' (1/12 natural size) Vilmorin-Andrieux The Vegetable Garden, p. 41.

Figure 11. **'White Marrowfat'** <u>Vick's Floral Guide</u>, 1872, p. 90.



Figure 9. 'Large Lima' Vick's Floral Guide, 1872, p. 90.





Figure 13. 'Egyptian Beet' Henderson, Gardening For Pleasure, p. 184.



Figure 14. **'Egyptian Extra Early Turnip Beet** Landreth's Rural Register and Almanac, 1884, p. 47.



Figure 15. **'Egyptian Dark-red Turnip-rooted Beet'** (1/5 natural size) Vilmorin-Andrieux, <u>The Veg</u>etable Garden, p. 81.



Figure 16. **'Early Blood-red Turnip-rooted Beet'** (1/5 natural size) Vilmorin-Andrieux, <u>The Vegetable Garden</u>, p. 81.



Figure 17. 'Early Blood Turnip-Rooted' Burr, <u>Vegetables of America</u>, p. 8.



Figure 18. 'Early Blood Turnip Rooted' Vick's Floral Guide 1872, p. 91.



Figure 19. 'Early Blood Turnip Beet' Henderson, <u>Gardening For Profit</u>, p. 126.

Cabbage Varieties



Figure 20. 'Early Jersey Wakefield' Dreer's Garden Calendar, 1891, p. 10.



Figure 21. 'Jersey Early Wakefield' Vick's Floral Guide, 1880, p. 76

Figure 22. 'Large Flat Dutch' Quinn, Money In The Garden, p. 79.







Figure 24. **'Drumhead Savoy'** Quinn, <u>Money In The Garden</u>, p. 81.



Figure 25. **'Large Drumhead Savoy'** Vilmorin-Andrieux, <u>The Vegetable Garden</u>, p. 127.



Figure 26. **'Long Orange'** Quinn, <u>Money In The Garden</u>, p. 108.



Figure 27. **'Long Orange'** Henderson, <u>Gardening For Profit</u>, p. 150.





Carrot Varieties

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Celery Varieties



Figure 31. 'Stowell's Evergreen' Dreer's Garden Calendar, 1891, p. 16.







Figure 33. 'Stowell's Evergreen' "Scale of Points", 1894, p. 37

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Corn Varieties







Figure 35. **'Long Green'** Rawson, <u>Market Gardening</u>, p. 120.

Figure 36. 'Improved Long Green' Vick's Floral Guide, p. 90.











Figure 38. 'Danvers Yellow' "Scale of Points", 1894, p. 8.



Figure 39. 'Yellow Danvers' Quinn, Money In The Garden, p. 186.



Figure 40. **'Yellow Danvers'** Henderson, <u>Gardening For Profit</u>, p. 216.



Figure 42. 'Danver's Yellow' Burr, <u>Vegetables of America</u>, p. 123.



Figure 41. **'Danver's Yellow'** (1/3 natural size) Vilmorin-Andrieux <u>The Vegetable Garden</u>, p. 365.











Figure 45. **'Common, or Plain'** (1/5 natural size) Vilmorin-Andrieux, <u>The Vegetable Garden</u>, p. 379.

Pea Varieties



Figure 46. 'McLean's Little Gem' Landreth's Rural Register and Almanac,



Figure 47. **'Champion of England'** (natural size) Vilmorin-Andrieux, <u>The Vegetable Garden</u>, p. 415.

Pepper Varieties





Figure 49. 'Bell-pepper' Burr, <u>Vegetables of America</u>, p. 607.

Figure 48. **'Large Bell Pepper'** (1/3 natural size) Vilmorin-Andrieux, <u>The Vegetable Garden</u> p. 152.



Figure 50. 'Bull-Nose or Bell Pepper' Henderson, <u>Gardening For Profit</u>, p. 225.



Figure 51. **'Bull-Nose** or **Sweet Mountain'** "Scale of Points", 1894, p. 31.









Figure 53. **'Early Rose'** Quinn, <u>Money In The Garden</u>, p. 207.



Figure 54. **'Early Rose'** (natural size) Vilmorin-Andrieux, <u>The Vegetable Garden</u>, p. 461.

Radish Varieties



Figure 55. 'Early Scarlet Turnip' Quinn, Money In The Garden, p. 219.



Figure 56. 'Scarlet Turnip' Rawson, Market Gardening, p. 161.



Figure 57. 'Scarlet Turnip' Henderson, <u>Gardening For Profit</u>, p. 231.





Figure 58. 'Scarlet Turnip' Dreer's Garden Calendar, 1891, p. 36.

Figure 59. 'Deep Scarlet Turnip' (1/3 natural size) Vilmorin-Andrieux, The Vegetable Garden, p. 486.

Sector Contractor



Figure 60. **'Early White-tipped Scarlet Turnip'** (1/3 natural size) Vilmorin-Andrieux, <u>The Vegetable Garden</u>, p. 486.

Spinach Varieties



Figure 61. **'Large Prickly** or **Winter'** (1/6 natural size) Vilmorin-Andrieux, <u>The Vegetable Garden</u>, p. 533.
Squash Varieties



Figure 62. 'White Bush' Henderson, <u>Gardening For Pleasure</u>, p. 218.



Figure 63. 'White-Bush Scalloped' Henderson, Gardening for Profit, p. 246.



Figure 64. **'Hubbard'** Burr, <u>Vegetables of America</u>, p. 210.



Figure 65. Hubbard' Vick's Floral Guide, 1872, p. 111.



Figure 66. 'Common Yellow Field' Burr, Vegetables of America, p. 192.



Figure 67. **'Large Cheese'** <u>Dreer's Garden Calendar</u>, 1891, p. 34.

Tomato Varieties



Figure 68. **'Large, Red'** Burr, <u>Vegetables of America</u>, p. 636.







Figure 70. 'Purple-top Strap-leaved' Burr, <u>Vegetables of America</u>, p. 105.

Figure 69. 'Strap-Leaf Red-Top' Quinn, Money In The Garden, p. 252.





Figure 71. 'Purple Top Strap Leaf' Dreer's Garden Calendar, 1891, p. 41.

Figure 72. 'Red Top Strap-Leaved' Rawson, <u>Market Gardening</u>, p. 175.



Figure 72. 'Golden Ball' Burr, Vegetables of America, p. 101.

APPENDIX B

Commercial Seed Sources

Abbott & Cobb, Inc. P.O. Box 307, Feasterville, PA 19047 Abundant Life Seed Foundation, P.O. Box 772, Port Townsend, WA 98368 Agway, Inc., Box 4933, Syracuse, NY 13221 Alberta Nurseries & Seeds Ltd, Box 20, Bowden, Alberta, Canada TOM OKO Allen, Sterling, & Lothrop, 191 U.S. Rt. 1, Falmouth, ME 04105 Archias', P.O. Box 109, Sedalia, MO 65301 Arco Seed Co., P.O. Box 181, El Centro, CA 92244 Asgrow Seed Co., 7000 Portage Rd., Kalamazoo, MI 49001 78596 Walter Baxter Seed Co., P.O. Box 8175, Weslaco, TX Behm & Hagemann, Inc., 3021 Farmington, Rd., Peoria, IL 61604 Bishop Farm Seeds, Box 338, Belleville, Ontario, Canada K8N 5A5 Bonanza Seeds, P.O. Box V, Gilroy, CA 95020 Bonavista, Box 618, Frederick, MD 21701 Botzum Seed Co., 43 E. Market St., Akron, OH 44308 Bountiful Gardens, 5798 Ridgewood Rd., Willits, CA 95490 Brawley Seed Co., P.O. Box 180, Mooresville, NC 28115 Buckerfields, P.O. Box 7000, Vancouver, B.C. Canada V6B 4E1 Bunch's, 321 Texas, Texarkana, TX 75501 Burgess Seed & Plant Co., 905 Four Seasons Rd., Bloomington, IL 61701 W. Atlee Burpee Co., 300 Park Ave., Warminster, PA 18991 Burrell Seed Growers Co., Box 150, Rocky Ford, CO 81067 Butterbrooke Farm, 78 Barry Rd., Oxford, CT 06483 California Gardeners Seed Co., 904 Silver Spur Rd., Suite 414, Rolling Hill Est, CA 90274 A.L. Castle, Inc., P.O. Box 877, 190 Mast St., Morgan Hill, 95037 CA Comstock, Ferre & Co., 263 Main St., Wethersfield, CT 06109 Crockett Seeds, P.O. Box 237, Metamora, OH 43540 Crookham Co., P.O. Box 520, Caldwell, ID 83605 Crosman Seed Corp., P.O. Box 110 East Rochester, NY 14445 William Dam Seeds, Ltd., Box 8400, Dundas, Ontario, Canada L9H 6M1 De Giorgi Co., Inc., P.O. Box 413, Council Bluffs, IA 51502

Dr. Yoo Farm, P.O. Box 290, College Park, MD 20740 Dominion Seed House, Georgetown, Ontario, Canada L7G 4A2 Dorsing Seeds, Inc., P.O. Box Nyssa, OR 97913 Dothan Seed & Supply Co., Inc., P.O. Box 1668, Dothan, AL 36302 Early's Farm & Garden Centre, P.O. Box 3024, Saskatoon, Sask., Canada S7K 3S9 Eckroat Seed Co., P.O. Box 17610, Oklahoma City, OK 73136 Everett Seed, Inc., 1480 Central Ave., East Point, GA 30364 Farmer Seed & Nursery Co., 818 N.W. 4th St., Faribault, MN 55021 Ferry-Morse Seed Co., 111 Ferry-Morse Way, Mountain View, CA 94042 Henry Field Seed & Nursery, Shenandoah, IA 51602 Fisher's Garden Store, P.O. Box 236, Belgrade, MT 59714 Dean Foster Nurseries, Hartford, MI 49057 Fredonia Seed Co., 183-185 E. Main St., Fredonia, NY 14063 Garden City Seeds, P.O. Box 297, Victor, MT 59875 Garden Gem Seeds, 3902 State St., Quincy, IL 62301 Garden Magic Seed Co., 310 Main St., East Haven, CT 06512 Gateway Seed Co., P.O. Box 906, Clinton, IA 52732 Gaze Seed Co., Ltd, P.O. Box 640, St. John's, NWFL., Canada A1C 5K8 H. G. German Seeds, Inc., 103 Bank St., Smithport, PA 16749 Germania Seed Co., 5952 N. Milwaukee Ave., Chicago, IL 60646 Gleckler's Seedsmen, Metamora, OH 43540 Fred C. Gloeckner, 15 E. 26th St., New York, NY 10010 Good Seed Co., P.O. Box 702, Tonasket, WA 98855 Gurney's Seed & Nursery Co., Yankton, SD 57079 Ernest Hardison Seed Co., P.O. Box 23072, Nashville, TN 37201 Harpool Seed, Inc., P.O. Drawer B, Denton, TX 76202 Joseph Harris Seed Co., 3670 Buffalo Rd., Rochester, NY 14624 Chas. C. Hart Co., P.O. Box 9169, Wethersfield, CT 06109 Hastings, P.O. Box 4274, Atlanta, GA 30302 Herb Gathering, Inc., 5742 Kenwood, Kansas City, MO 64110 Herbst Bros. Seedsman, Inc., 1000 North Main St., Brewster, 10509 NY High Altitude Gardens, P.O. Box 4238, Ketchum, ID 83340 Geo. W. Hill & Co., P.O. Box 787, Florence, KY 41042 Hollar & Co., Inc., P.O. Box 106, Rocky Ford, CO 81067 Holmes Seed Co., 2125 46th St. N.W., Canton, OH 44709 J.L. Hudson, Seedsman, World Seed Service P.O. Box 1058, Redwood City, CA 94064 Ed Hume, Seeds, P.O. Box 1450, Kent, WA 98032 Indiana Seed Co., P.O. Box 440, Noblesville, IN 46060

Island Seed Co., Ltd, P.O. Box 4278, Sta. A, Victoria, B.C., Canada V8X 3XB Johnny's Selected Seeds, Albion, ME 04910 Johnson Seed Co., 227 Ludwig Ave., Dousman, WI 53118 Jordan Seeds, 6400 Upper Afton Rd., Woodbury, MN 55125 Jung Seeds & Nursery, 335 S. High St., Randolph, WI 53957 Kilgore Seed Co., 1400 W. First St., Sanford, FL 32771 Lagomarsino Seeds, Inc., 5675-A Power Inn Rd., Sacramento, 95824 CA Lakeland Nurseries Sales, 340 Poplar St., Hanover, PA 17331 Landreth Seed Co., 180-188 W. Ostend, Baltimore, MD 21230 Le Jardin Du Gourmet, West Danville, VT 05873 Le Marche Seeds International, P.O. Box 566, Dixon, CA 95620 Oral Ledden & Sons, P.O. Box 7, Sewell, NJ 08080 Letherman's Inc., 1221 Tuscarawas St. E., Canton, OH 44707 Liberty Seed Co., P.O. Box 806, New Philadelphia, OH 44663 Chas. C. Lilly Co., 7737 N.E. Killingsworth, Portland, OR 97218 Lindberg Seeds Ltd, 803 Princess Ave., Brandon, Manitoba, Canada R7A OP5 Livingston Seed Co., P.O. Box 299, Columbus, OH 43216 Living Tree Centre, P.O. Box 797, Bolinas, CA 94924 Lockhart Seeds, Inc., P.O. Box 1361, Stockton, CA 95205 Long Island Seed and Plant, P.O. Box 1285, Riverhead, NY 11901 Earl May Seed & Nursery Co., Shenandoah, IA 51603 McFayden Seeds, P.O. Box 1800, Brandon, Man., Canada R7A 6N4 McLaughlin's Seeds, P.O. Box 550, Mead, WA 99021 Mellinger's Inc., 2310 W. South Range, North Lima, OH 44452 Meyer Seed Co., 600 S. Caroline St., Baltimore, MD 21231 Henry F. Michell Co., P.O. Box 160, King of Prussia, PA 19406 Midwest Seed Growers, 505 Walnut St., Kansas City, MO 64106 Mountain Valley Seeds & Nursery, 2015 North Main, North Logan, UT 84321 Nationwide Seed & Supply, 4801 Fegenbush Lane, Louisville, KY 40228 Nichols Garden Nursery, 1190 North Pacific Highway, Albany, NY 97321 Northrup King Co., P.O. Box 1827, Gilroy, CA 95020 The Ohio Seed Co., P.O. Box 87, West Jefferson, OH 43162 Olds Seed Co., P.O. Box 7790, Madison, WI 53707 Ontario Seed Company, Ltd, P.O. Box 144, Waterloo, Ontario Canada N2J 3Z9 Page Seed Co., Greene, NY 13778 Geo. W. Park Seed Co., P.O. Box 31, Greenwood, SC 29647

Peace Seeds, 1130 Tetherow Rd., Williams, OR 97544 Petoseed Co., P.O. Box 4206. Saticoy, CA 93003 Pinetree Garden Seeds, New Gloucester, ME 04260 Pony Creek Nursery, Tilleda, WI 54978 Porter-Walton, P.O. 27126, Salt Lake City, UT 84127 Rawlinson Garden Seed, 269 College Rd., Truro, Nova Scotia, Canada B2N 2P6 Redwood City Seed Co., P.O. Box 361, Redwood City, CA 94064 J.B. Rice Jr., Inc., Shushan, NY 12873 Otto Richter & Sons, Ltd., Box 26, Goodwood, Ontario, Canada LOC 1AO Martin Rispens & Sons, 3332 Ridge Rd., (Rear, Box 5), Lansing, IL 60438 Rocky Mountain Seed Co., 1325 15th St., P.O. Box 5204, 80217 Denver, CO P.L. Rohrer & Bro., Inc., P.O. Box 25, Smoketown, PA 17576 Roswell Seed Co., 115-117 S. Main St., Roswell, NM 88201 Royal Seeds, Inc., 1212 W. Eighth St., Kansas City, MO 64101 Sanctuary Seeds, 2388 W. 4th, Vancouver, B.C. Canada V6K 1P1 Saunders Seed Co., Inc., 101 W. Broadway, Tipp City, OH 45371 Seeds Blum, Idaho City Stage, Boise, ID 83707 Seeds For All, Keating Stage, Baker, OR 97814 Segrest Seed Co., P.O. Box 339, Slocomb, AL 36375 Shepherd's Garden Seeds, 7389 W. Zayante Rd., Felton, CA 95018 R.H. Shumway Seedsman, P.O. Box 777, Rockford, IL 61105 Siegers Seed Co., 7245 Imlay City Rd., Imlay City, MI 48444 J.P. Snapp & Sons, Rt. 3, Box 68, Limestone, TN 37681 Southern Exposure Seed Exchange, P.O. Box 158, North Garden, 22959 VA Southern Garden Co., Box 888748, Dunwoody, GA 30338 Southern States Cooperative, P.O. Box 26234, Richmond, VA 23260 Standard Seed Co., 931 W. 8th St., Kansas City, MO 64101 Stokes Seeds, Inc., 737 Main St., Box 548, Buffalo, NΥ 14240 Sun Seed, 9531 W. 78th St., Suite 229, Eden Prairie, MN 55341 Swedesboro Seed Co., P.O. Box 127, Swedesboro, NJ 08085 Geo. Tait & Sons, Inc., 900 Tidewater Dr., Norfolk, VA 23504 Territorial Seed Co., P.O. Box 27, Lorane, OR 97451 Thompson & Morgan, P.O. Box 100, Farmingdale, NJ 07727 Tillinghast Seed Co., P.O. Box 738, La Connor, WA 98257

Tregunno Seeds Ltd., 126 Catharine St., N. Hamilton Ontario, Canada L8R 1J4

Vaughn's Seed Co., 5300 Katrine Ave., Downers Grove, IL 60515

Vita-Green Farms, Inc., 217 Escondido Ave., Vista, CA 92083 H.K. Webster Co., P.O. Box 470, Concord, NH 03301

Weeks Seed Co., 921 Dickinson Ave., Greenville, NC 27834

Westwind Seeds, 2509 N. Campbell Ave., #139, Tucson, AZ 85719

Wetsel Seed Co., Inc., P.O. Box 791, Harrisonburg, VA 22801 Willhite Seed Co., P.O. Box 23, Poolville, TX 76076 Wyatt-Quarles Seed Co., P.O. Box 2131, Raleigh, NC 27602

APPENDIX C

Brief Biographies of Informants

Elizabeth Beacom was born in 1891 and lived in the village of Squirrel Run. She said her father maintained the vegetable garden. She was interviewed by Dr. Norman Wilkinson and J.P. Monigle.

Walter Biddle was born in 1928. As a child he lived at Granogue, the farm of Irene duPont where his father was the boss farmer. As an adult he worked for the Eleutherian Mills Hagley Foundation as the Grounds Superintendent until his retirement in 1985. He was interviewed by Karen Perkins.

Mrs. Emily Blackwell lived in Squirrel Run. She was interviewed by Jackie Hinsley and Mary Sam Ward.

Eugene Bruno was born in Squirrel Run. He was sixty six years of age in 1981. He worked for Henry duPont in the gardens at Winterthur. "That was my first love...garden work. I always did like fooling in the gardens" (12 March 1981) He was interviewed by Dorothy Tremaine.

James Cammock was born in 1895. His father died in a powdermill explosion when he was ten years old. He tended the family vegetable garden with the help of his brother. He lived on Breck's Lane in back of the A.I. duPont School. At age thirteen or fourteen he left school and went to work for the DuPont Company. His father had worked for the DuPont Company for forty five years. He was interviewed by Karen Perkins.

Catherine Cheyney was born in 1905 on Hagley Road on Blacksmith Hill in the house adjacent to the one being interpreted as the John Gibbons house. She moved to Free Park at the age of twelve and lived in a house closer to Christ Church until age thirteen. She was the daughter of powderman George Cheyney who manned the 1802 gates. Her father had only one arm and so the children had to assist him in the garden and with other chores. Two generations of Cheyneys had been employed by the DuPont Company, the duPont family or Christ Episcopal Church. She said that she lived near the Hagley Yards until 1942. She was interviewed initially by Norman Wilkinson and George Gibson, and later by Dorothy Tremaine, Frank McKelvey and Karen Perkins.

Philip Dougherty was born in 1874 and lived on Charles Banks. He left Hagley in 1913. He was interviewed by Dr. Norman Wilkinson and J.P. Monigle.

Thomas Dunlop was born in Scotland in 1905. He lived on Breck's Lane. He was interviewed by Dorothy Johnson.

Ella Fitzharris' father was born at Charles Banks. She was a housewife and lived on Breck's Lane. She was interviewed by Carla Martin and Dorothy Tremain.

William Flanigan was born in 1890 and lived in Walker's Banks and Henry Clay Village. In 1901 his family moved to Squirrel Run. He was interviewed by Dr. Norman Wilkinson and J.P. Monigle.

James Gamble was born in 1903 in Henry Clay Village and was a metal worker. His references were to the garden of his grandparents on Rising Sun Lane. He was interviewed by Dorothy Tremaine.

Joseph Haley was born in 1898 across from the present location of the DuPont airport. He was interviewed by J.P. Monigle and Norman Wilkinson.

Mrs. Joseph Hudson was born in 1898 of a French father and Irish mother. She lived at the Upper Banks until 1913. She was interviewed by Mr. John Scaffidi.

Joseph Kauss was a stenographer at the Hagley Yards. He was born at 172 Breck's Lane. His mother was born on Long Row. His wife Mary Todd had an English father who was a textile worker for Bancroft Mills. In the February 17, 1981 interview, Joseph was referring to his grandfather's large garden.

Faith Betty Lattomus was aged 62 and Madaline Betty Walls was aged 68 in 1969. Their father was a boss farmer and sold potatoes, corn and wood for the duPonts. Jenny Sicco Leto was born in 1889 at Walker's Banks. She lived in Free Park and then move to Upper Banks with her father. She also mentions living in Squirrel Run and Chicken Alley. Her mother died when Jenny was seven. Her father had a garden but was killed in a powdermill explosion in the Upper Yard and she was raised by her grandmother. She said that her grandfather had worked at the Hagley Yards since the end of the Civil War Her grandmother maintained a garden in Free Park. She was interviewed by Frank McKelvey.

F.L. Matthewson was born in 1895 on Breck's Lane. His father was Alfred I. duPont's electrician. His family did not have a garden as they were given vegetables from Alfred I. duPont's garden. He was interviewed by Dr. Norman Wilkinson and John Scafidi.

C. Natalie Meriggi was born in Squirrel Run on December 24, 1911 of an Italian mother and father. She said that her father learned how to garden in Italy and he planted according to the phases of the moon. She helped her father with the work in the vegetable garden. He was a machinist for the DuPont Company. Her family moved into the city of Wilmington when she was seven. She was interviewed by Peggy Bennett, Frank McKelvey, and Karen Perkins.

Aloysius Rowe was born in 1905 of an Irish father and a French mother. He lived in Henry Clay Village. He was interviewed by Mrs. Faith Pizor and Mr. Stuart Campbell.

Her grandfather Dr. Margaret Seitz was born in 1922. was Jacques Seitz whose garden is featured in Photograph H50-17. Jacques Seitz was the husband of Catherine Gibbons, daughter of John Gibbons. She said that the father and the sons commonly did the work in the garden. Her father George worked for the duPonts as did her two aunts, Pauline and Florence Seitz who lived in the Brandywine Manufacturers Sunday School building on Blacksmith Hill until their deaths in the 1970's. She lived in the Brandywine Hundred. She documented this information in a written questionnaire and an untaped interview conducted by Karen Perkins. Both are on deposit in the Eleutherian Mills Hagley Foundation Oral History File.

Anne Smith is a cousin of Dr. Margaret Seitz and also is a great granddaughter of John Gibbons. She was born in 1913. She recalled that her grandfather Jacques Seitz came to America in 1870 from the French speaking section of Alsace Lorraine. He lived in Free Park and married the daughter of John Gibbons. She visited her grandfether's home about four times a year from the time she was born until her aunt Pauline Seitz died in 1975. Her earliest memories were of trailing behind her grandfather in the garden as he tended the chickens, vegetables and flowers. She said that her grandfather and daughters worked in the garden. Her grandmother died when her youngest child was 9. She documented this information in a written questionnaire, which is on deposit in the Eleutherian Mills Hagley Foundation Oral History File.

Blanche MacAdoo Yetter was age eighty seven in July 1984. She was raised in Squirrel Run by her grandparents. She was not required to help with many of the chores and so she did not help in the garden. She thought of garden work as a boy's job. Her grandfather cultivated the garden and her grandmother accomplished the harvesting, preparing and preserving of the vegetables. She was interviewed by Karen Perkins and Betty Wagner.

Jenny Toomey was born of Irish parents. She lived on Charles Banks before she was married. Her family had no space for a vegetable garden, but her father grew beautiful roses in the yard. She was interviewed by Dorothy Johnson. APPENDIX D

Plot Plan



Chapter 1

INTERPRETATION OF THE WORKER'S VEGETABLE GARDEN

AT THE GIBBONS HOUSE FOR THE GUIDES OF BLACKSMITH HILL

Introduction

During the last half of the nineteenth century the DuPont Company powdermill workers were often provided with inducements to employment such as basic company housing at low rent, and a plot of land on which to garden. Many of the powdermen took advantage of these provisions:

We didn't have to go into Wilmington very often because we mostly raised their own stuff out here. Each one had a little piece of ground he could cultivate, raise all the vegetables he needed.¹

The vegetable garden at the Gibbons House is typical of one tended by a powdermill worker and his family during the period 1870 to 1885. It is not intended to be that of the Gibbons family specifically, although we know that gardens were maintained on Blacksmith Hill.²

The vegetable varieties being grown in the garden are those commonly grown by the powdermen, or commonly offered

in the trade during the same period, for which we have discovered current sources. Techniques of cultivation, as much as practical, are the same as those employed during the nineteenth century.

To the casual visitor the vegetable garden may appear very similar to those of today. Gardening skills and favorite vegetable varieties many times are passed from generation to generation resulting in very gradual change.³ $4\ 5$ Vegetable gardens by their very nature are simple in design, practical in nature, and created for production. As a result, they do not change much over time as they are not subject to the whims of style as are the more ornamental gardens. The vegetable gardens of the powdermen did not contain flowers.⁶ 7 8

Vegetable gardens provided a convenient and inexpensive source of fresh produce for these families of limited means. The local village stores supplemented the crops grown in the gardens. These stores mostly carried starchy staples and not much in the way of fresh vegetables.⁹ Hucksters brought fresh vegetables in season on a weekly basis which supplemented the produce grown in the garden. ¹⁰ 11 12 Trips into Wilmington were infrequent before the advent of the People's Railway Company No. 7 in 1906. As a result, vegetable gardening was not a luxury but a necessity. Many

of the powdermen enjoyed working in the garden.¹³ A large number of them had emmigrated from countries where farming was a common way of life. They proudly showed their gardens to visiting friends and relatives.¹⁴ 15 16 17 18

Garden Layout

Worker's gardens was located close to the home when space allowed.¹⁹ ²⁰ Their shape was generally rectangular. Dimensions varied from thirty to forty feet in width to forty to sixty feet in length.²¹ ²² ²³ ²⁴ A common layout consisted of a path around the edge of the garden and a central path dissecting the garden into halves with rows arranged perpendicularly to this central path axis.²⁵ ²⁶ ²⁷



Diagram of possible worker's vegetable garden layout.

Vegetables

The most popular crops were those that could be easily stored or preserved for the winter. White potatoes were a very important part of the diet, especially for families of Irish descent, and generally took up the largest portion of the garden.²⁸ ²⁹ The first new potatoes of the year were an eagerly awaited treat during the 4th of July holiday.^{30 31} Main meals nearly always included a potato.³² Ham, cabbage and potatoes was a frequent and inexpensive dinner 33 34 The tubers were commonly stored in the dark basement in a wooden bin. One family once used this bin to hide their daughter when there was danger of a powdermill explosion.³⁵ Additional quantities of potatoes were purchased from the duPont farms when the home grown supply was depleted. 36 37 Six to eight bushels might be used per year by a family.³⁸

Cabbage was also an important crop. During the winter the heads were stored in pits dug into the soft earth of the garden. The pits were three feet deep and located near the garden gate for convenience. Beets, turnips, carrots and celery were stored in the pit with the cabbage and covered with a thick layer of soil to keep out the frost.³⁹ 40 An opening allowed easy retrieval of the produce.⁴¹ The celery blanched in the darkness of storage

and the cool, yellow crisp stalks were a treat during the Thanksgiving and Christmas holiday dinners.⁴² 43

Tomatoes and parsley were popular as well.⁴⁴ Parsley was mulched with a thick layer of dry leaves in the fall. The leaves were kept in place by three boards which were stood on their sides and fastened together at the ends to form a triangle. With such protection parsley could be picked all winter long.⁴⁵ Tomatoes were commonly canned for winter use.⁴⁶ 47 48 The vines were often tied to stakes to keep them off the ground. Branches from nearby trees and cloth strips torn from discarded clothing served as the stakes and ties.⁴⁹ 50 51 52 Even those who had no room to grow a garden would often plant a few tomatoes in the dooryard.⁵³

Other vegetables that were often grown on stakes were green snap beans, lima beans and tall peas.^{54 55} Extras were oftentimes dried for winter use.^{56 57} Peppers, corn, squash, lettuce, radishes and spinach were also grown, but in limited quantities, as they were either not commonly stored or they took too much space in the small gardens.⁵⁸ ^{59 60 61} Some even grew quick maturing crops like lettuce and radishes in areas adjacent to the house where the more ornamental plants were usually placed.^{62 63}

Garden Management

In March or April the gardens were turned over by hand with a spade or digging fork.⁶⁴ ⁶⁵ ⁶⁶ ⁶⁷ At the end of the season the dried vegetable vines and stalks were collected into a section of the garden and burnt on a day that the wind was still.⁶⁸ ⁶⁹ Vegetable scraps were fed to the chickens who especially favored potato peelings. ⁷⁰ ⁷¹

Many gardens were surrounded with wooden paling fences which were often whitewashed.⁷² ⁷³ The gate was fastened with a metal hook and eye.⁷⁴ ⁷⁵ Fencing excluded the larger garden pests, e.g. wildlife, children and dogs, although the chickens could get into the garden by scratching their way under the fence or by flying over it if their wings were not clipped.⁷⁶ ⁷⁷ The vegetables were planted two and a half feet away from the fence to allow for a path around the edge of the garden.⁷⁸ ⁷⁹ Water was carried from the purp in a metal bucket. When the distance to the pump from the garden was great, watering was kept to a minimum. It was mostly performed for transplants that were newly planted in the garden and in times of drought.⁸⁰ A ladle was used to portion out the water.⁸¹ 82 83 84

Powdermen who spent long exhausting hours in the mills six days a week had limited time and energy to tend to

Longwood Program

vegetable plots.⁸⁵ Children and wives helped with the watering, harvest and pest management.⁸⁶ 87 88 89

Fertilization

Fertilization was accomplished by spreading manure in the spring from whatever source it was available. Many powdermen raised chickens and other livestock. The manure generated from these creatures was stockpiled and spread on the garden in spring when it was well rotted.⁹⁰ ⁹¹ ⁹² The same lime used for whitewashing the house each year for the 4th of July or used for disinfecting the outhouse or chicken coop was spread on the gardens before planting to "sweeten the soil".⁹³ 94 95 96

A dusting of wood ashes and bone meal would provide the necessary potassium and phosphorous according to seedsmen of the period.⁹⁷ A plentiful supply of wood ashes were available to powdermen from their wood burning stoves, however they used them for other tasks such as filling holes in the yard, rather than enriching the garden.⁹⁸ Bone meal was available from local establishments and was advertised in the Wilmington papers although we do not know if it was used by the powdermen:

John A. Wilsons Ground Bone Fertilizer...Pure ground bone, manufactured of fresh bones from the large packing establishments of one of the Western cities...We recommend its use for wheat, corn, oats potatoes, grass, garden vegetables, tobacco, cotton, fruit, berries and c."⁹⁹



Gardening implements generally needed in private gardens. From left to right: spade, shovel, digging fork, draw hoe, metal rake, trowel, wheelbarrow. Peter Henderson <u>Gardening For Pleaure</u>, 1875, pp. 223-228.

Garden tools used by the mill workers were basic. A common draw hoe was the most indispensible tool in the garden.¹⁰⁰ 101 102 103 It was used to cultivate the ground to remove weeds and for making and covering drills or trenches in which to plant the seed.¹⁰⁴ A digging fork was used to lift root crops and turn over the garden in the spring. It was more effective than a spade in breaking up large clods of earth.¹⁰⁵ 106 Spades were also used to turn the ground over in the spring.¹⁰⁷ 108 Metal rakes were used to smooth the rough ground into a fit seedbed.¹⁰⁹

110 111 112 113 A hand trowel was used for setting transplants into the garden.¹¹⁴ 115 116 Shovels were also common in the tool shed.¹¹⁷ 118 119 Many families owned or borrowed a wheel barrow for carrying garden tools, produce and debris.¹²⁰ 121 122 One family used two nails or sticks with string stretched between to guide them in making straight rows,¹²³ while another judged the straightness of the rows by eye.¹²⁴ Tools were stored in a shed near the house.¹²⁵ 126 127 Tools were cleaned of soil after use and then wiped with an oily rag to keep them from rusting.¹²⁸ 129

Insects & Diseases

The most important vegetables in the garden received the greatest attention in terms of pest control. Pests on cabbage, potatoes and tomatoes were not only foremost in the minds of the powdermen but the subject of numerous newspaper articles of the time.¹³⁰ ¹³¹ Handpicking insects was the primary method of control. The insects were then smashed underfoot or dropped into a container of kerosene or "coal oil". Many times this was the job of the children after school or before school when the insects were still sluggish from the cold night air.¹³² ¹³³ Some people sprinkled lime from a coarsely woven mesh bag over certain plants to deter pests.¹³⁴ A horticulturist of the day claimed the reason dusting the plants was effective against the flea beetle was

that "the beetle dislikes gritty food."¹³⁵ Purchased chemicals applied in the form of dusts were only used on the important crops as the powdermen were economy minded. For the same reason, manures from local livestock were commonly used to enrich the garden, rather than manufactured fertilizers, although they were available from stores in Wilmington.¹³⁶

The importance of weekly cultivation was promoted in the following article from the Delaware Gazette:

"Attacking the Weeds"

Weeds must be killed in their earliest infancy. When the young rascal first comes to light, his hold on life is very weak. Move the soil a little and he dies. Let him alone a few days and he and his confederates have entrenched themselves so as to make their removal expensive or impossible.¹³⁷

Crop rotation was practiced by the powderworkers.¹³⁸

Seed Sources

Some powdermen saved seeds of certain vegetables from year to year. In the case of the tomato or squash, they went through the effort of choosing nice sized iruits, removing and drying the seed and packaging them in a homemade packet of paper or cloth.¹³⁹ For other vegetables such as peas, beans or potatoes they simply used the leftover 'seed' from the winter's food supply.¹⁴⁰ Transplants were commonly bought for some plants such as cabbage from farmers on King Street.¹⁴¹ ¹⁴² A few families started seeds in a sunny window in soil filled wooden boxes.¹⁴³ Other seeds were purchased from farmers at the King Street Market or from seed shops or drug stores in Wilmington.¹⁴⁴ 145 146 147 A few ordered by mail from seed catalogs.¹⁴⁸ The local village stores did not seem to stock seeds.¹⁴⁹ 150 Seed potatoes leftover from the winter's supply were cut into pieces with one or two buds for planting.¹⁵¹ 152 The ones that had sprouted seemed to be preferred although experts of the day labeled them as weak propagules.¹⁵³ 154 155

The vegetable gardens of the millworkers were an important part of everyday lives. Not only did they supply their families with fresh nutritious produce which enhanced their quality of life, but they also provided enjoyable recreation. The addition of the worker's garden to the interpretation of Blacksmith Hill provides the visitor with a more complete picture of the life of the powderman and his family living on the banks of the Brandywine.

Footnotes

¹Interview with Joseph Campbell, Eleutherian Mills Hagley Foundation Oral History File, 15 August 1957.

²Interview with Phillip Dougherty, Eleutherian Mills Hagley Foundation Oral History File, 12 January 1955, 6 February 1955.

³Interview with Eugene Bruno, Eleutherian Mills Hagley Foundation Oral History File, 12 March 1981.

⁴Interview with James Cammock, Eleutherian Mills Hagley Foundation Oral History File, 24 July 1984.

⁵Interview with C. Natalie Ruggero Meriggi, Eleutherian Mills Hagley Foundation Oral History File, 24 July 1984.

⁶Cammock, Interview, 24 July 1984.

⁷Interview with Catherine Cheyney, Eleutherian Mills Hagley Foundation Oral History File, 23 January 1984.

⁸Interview with Blanche MacAdoo Yetter, Eleutherian Mills Hagley Foundation Oral History File, 25 July 1984.

⁹Yetter, Interview, 25 July 1984.

¹⁰Interview with C. Natalie Ruggero Meriggi, Eleutherian Mills Hagley Foundation Oral History File, 10 June 1984.

¹¹Cheyney, Interview, 23 January 1984.

¹²Yetter, Interview, 25 July 1984.

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¹⁴Cammock, Interview, 24 July 1984.

¹⁵Cheyney, Interview, 23 January 1984.

¹⁶Meriggi, Interview, 24 July 1984.

¹⁷Written questionnaire from Dr. Margaret Seitz, Eleutherian Mills Hagley Foundation Oral History File, 15 February 1984.

¹⁸Yetter, Interview, 25 July 1984.

¹⁹Interview with Faith Betty Lattomus and Madaline Betty Walls, Eleutherian Mills Hagley Foundation Oral History File, 12, 25 June 1969.

²⁰Yetter, Interview, 25 July 1984.

²¹Cammock, Interview, 24 July 1984.

²²Cheyney, Interview, 23 January 1984.

²³Seitz, Questionnaire, 15 February 1984.

²⁴Yetter, Interview, 25 July 1984.

²⁵Interview with Catherine Cheyney, Eleutherian Mills Hagley Foundation Oral History File, 26 March 1984.

²⁶Interview with John and Mary Todd Kauss, Eleutherian Mills Hagley Foundation Oral History File, 17 February 1981.

²⁷Meriggi, Interview, 24 July 1984.

²⁸Cammock, Interview, 24 July 1984.

²⁹Kauss, Interview, 17 February 1981.

³⁰Interview with Catherine Cheyney, Eleutherian Mills Hagley Foundation Oral History File, 15 February 1984.

³¹Yetter, Interview, 25 July 1984.

³²Interview with Jenny Toomey, Eleutherian Mills Hagley Foundation Oral History File, 8 February 1984.

³³Cammock, Interview, 24 July 1984.

³⁴Interview with Blanche MacAdoo Yetter, Eleutherian Mills Hagley Foundation Oral History File, 3 April 1984.

³⁵Cheyney, Interview, 23 January 1984.

³⁶Lattomus and Walls, Interview, 12, 25 June 1969.
³⁷Interview with William Flanigan, Eleutherian Mills Hagley Foundation Oral History File, June 1960.

³⁸Yetter, Interview, 25 July 1984. ³⁹Cheyney, Interview, 23 January 1984. ⁴⁰Meriggi, Interviews, 10 June 1984, 24 July 1984. ⁴¹Meriggi, Interview, 24 July 1984. ⁴²Bruno, Interview, 12 March 1981. ⁴³Cheyney, Interview, 26 March 1984. ⁴⁴Yetter, Interview, 25 July 1984. ⁴⁵Yetter, Interview, 25 July 1984. ⁴⁶Cammock, Interview, 24 July 1984. ⁴⁷Lattomus and Walls, Interview, 12, 25 June 1969. ⁴⁸Meriggi, Interview, 24 July 1984. ⁴⁹Cammock, Interview, 24 July 1984. ⁵⁰Cheyney, Interview, 15 February 1984. ⁵¹Meriggi, Interview, 24 July 1984. ⁵²Yetter, Interview, 25 July 1984. ⁵³Chevney, Interview, 15 February 1984. ⁵⁴Cheyney, Interview, 23 January 1984. ⁵⁵Meriggi, Interview, 24 July 1984. ⁵⁶Cheyney, Interview, 15 February 1984. ⁵⁷Meriggi, Interview, 24 July 1984.

⁵⁸Cammock, Interview, 24 July 1984.

⁵⁹Interviews with Catherine Cheyney, Eleutherian Mills Hagley Foundation Oral History File, 19 December 1983, 23 January 1984, 15 February 1984, 26 March 1984. ⁶⁰Meriggi, Interview, 24 July 1984.

⁶¹Yetter, Interview, 25 July 1984.

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⁶³Yetter, Interview, 25 July 1984.

⁶⁴Cammock, Interview, 24 July 1984.

⁶⁵Cheyney, Interview, 15 February 1984.

⁶⁶Dougherty, Interview, 12 January 1955, 6 February 1955.

⁶⁷Yetter, Interview, 25 July 1984.

⁶⁸Cammock, Interview, 24 July 1984.

⁶⁹Yetter, Interview, 25 July 1984.

⁷⁰Cheyney, Interview, 15 February 1984.

⁷¹Meriggi, Interview, 24 July 1984.

⁷²Photograph H50-17, Eleutherian Mills Hagley Foundation Pictorial Collection.

⁷³Cheyney, Interview, 23 January 1984.

⁷⁴Cheyney, Interview, 23 January 1984.

⁷⁵Meriggi, Interview, 20 June 1984.

⁷⁶Cammock, Interview, 24 July 1984.

⁷⁷Cheyney, Interview, 15 February 1984.

⁷⁸Cheyney, Interview, 26 March 1984.

⁷⁹Photograph H50-17.

⁸⁰Meriggi, Interview, 24 July 1984.

⁸¹Cammock, Interview, 24 July 1984.

⁸²Cheyney, Interview, 23 January 1984.

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⁸⁴Yetter, Interview, 25 July 1984.

⁸⁵Interview with James Gamble, Eleutherian Mills Hagley Foundation Oral History File, 24 April 1981.

⁸⁶Cammock, Interview, 24 July 1984.

⁸⁷Cheyney, Interview, 23 January 1984.

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⁸⁹Yetter, Interview, 25 July 1984.

⁹⁰Cheyney, Interviews, 23 January 1984, 26 March 1984.

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⁹²Yetter, Interview, 25 July 1984.

⁹³Bruno, Interview, 12 March 1981.

94Cammock, Interview, 24 July 1984.

⁹⁵Meriggi, Interview, 24 July 1984.

⁹⁶Yetter, Interview, 25 July 1984.

⁹⁷Robert Buist, <u>Kitchen Gardener</u>, New York: C.M. Saxton, 1853, p. 105.

⁹⁸Cammock, 24 July 1984.

⁹⁹<u>Delaware Gazette</u>, Wilmington, DE, 22 April 1875, p. 4.

¹⁰⁰Cammock, Interview, 24 July 1984.

¹⁰¹Cheyney, Interview, 26 March 1984.

¹⁰²Interview with Jenny Sicco Leto, Eleutherian Mills Hagley Foundation Oral History File, 25 May 1983.

¹⁰³Yetter, Interview, 25 July 1984.

¹⁰⁴Petter Henderson, <u>Gardening For Pleasure</u>, New York: Orange Judd Company, 1875, p. 224.

¹⁰⁵Cammock, Interview, 24 July 1984.

¹⁰⁶Henderson, <u>Pleasure</u>, p. 224.

107Cheyney, Interview, 26 March 1984. ¹⁰⁸Meriggi, Interview, 24 July 1984. ¹⁰⁹Cammock, Interview, 24 July 1984. ¹¹⁰Cheyney, Interview, 26 March 1984. ¹¹¹Henderson, Pleasure, p. 226. ¹¹²Leto, Interview, 25 May 1983. ¹¹³Yetter, Interview, 25 July 1984. ¹¹⁴Cheyney, Interview, 15 February 1984. ¹¹⁵Meriggi, Interview, 24 July 1984. ¹¹⁶Henderson, Pleasure, p. 226. ¹¹⁷Cheyney, Interview, 15 February 1984. ¹¹⁸Meriggi, Interview, 24 July 1984. ¹¹⁹Yetter, Interview, 25 July 1984. 120Cammock, Interview, 24 July 1984. ¹²¹Meriggi, Interview, 20 June 1984. ¹²²Yetter, Interview, 25 July 1984. ¹²³Yetter, Interview, 25 July 1984. ¹²⁴Cammock, Interview, 24 July 1984. ¹²⁵Leto, Interview, 25 May 1983. ¹²⁶Meriggi, Interview, 24 July 1984. ¹²⁷Yetter, Interview, 25 July 1984. ¹²⁸Cammock, Interview, 24 July 1984. ¹²⁹Meriggi, Interview, 24 July 1984. ¹³⁰Delaware Gazette, Wilmington, DE, 8 July 1875, p. 1. ¹³¹Delaware Gazette, Wilmington, DE, 24 June 1875, p. 1.

132Cammock, Interview, 24 July 1984.

¹³³Interview with Thomas Dunlop, Eleutherian Mills Hagley Foundation Oral History File, 30 April 1984.

¹³⁴Cammock, Interview, 24 July 1984.

¹³⁵Vick's Floral Guide, Rochester, NY: Charles F. Muntz and Company, 1872, p. 109.

¹³⁶Cheyney, Interview, 15 February 1984.

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¹³⁸Cheyney, Interview, 23 January 1984.

¹³⁹Meriggi, Interview, 24 July 1984.

¹⁴⁰Cheyney, Interview, 15 February 1984.

¹⁴¹Cammock, Interview, 24 July 1984.

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¹⁴³Meriggi, Interview, 24 July 1984.

¹⁴⁴<u>Delaware Gazette</u>, Wilmington, DE, 8 March 1850, p. 3.

¹⁴⁵Delaware Gazette, Wilmington, DE, 12 March 1850, p. 2.

¹⁴⁶Cheyney, Interview, 23 January 1984.

¹⁴⁷Meriggi, Interview, 24 July 1984.

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¹⁴⁹Cheyney, Interview, 15 February 1984.

¹⁵⁰Meriggi, Interview, 24 July 1984.

^{15C}ammock, Interview, 24 July 1984.

¹⁵¹Cheyney, Interview, 15 February 1984.

¹⁵²Buist, <u>Kitchen Gardener</u>, p. 105.

153Cheyney, Interview, 26 March 1984. 154yetter, Interview, 25 July 1984.

Chapter 2

GENERAL INTERPRETATION OF THE WORKER'S VEGETABLE GARDEN AT THE JOHN GIBBONS HOUSE

Introduction

During the last half of the nineteenth century many DuPont Company powdermill workers were permitted to garden on company owned land. Vegetable gardens provided a convenient and inexpensive source of fresh produce for these families of limited means. The local village stores carried starchy staples and not much in the way of fresh vegetables-¹ ² Hucksters brought fresh vegetables in season on a weekly basis.³ ⁴ Trips into Wilmington were infrequent before the advent of the People's Railway Company No. 7 in 1906. For many families vegetable gardening was not a luxury but a necessity. Many of the powdermen enjoyed working in the garden and proudly showed their garden to visiting friends and relatives.⁵

The worker's vegetable garden at the Gibbons House is typical of one tended by a powdermill worker and his family

during the period 1870 to 1885. It is not intended to be that of the Gibbons family specifically, although we know that gardens were maintained on Blacksmith Hill.

The vegetable varieties being grown in the garden are those commonly grown by the powdermen, or commonly offered in the trade during the same period, for which we have discovered current sources. Techniques of cultivation, as much as practical, are the same as those employed during the nineteenth century.

To the casual visitor the vegetable garden may appear very similar to those of today. Gardening skills and favorite vegetable varieties many times are passed from generation to generation resulting in very gradual change.⁶ 7 ⁸ Vegetable gardens by their very nature are simple in design, practical in nature, and created for production and thus are not subject to the whims of style as are the more ornamental gardens. The vegetable gardens of the powdermen did not contain flowers.⁹ 10 11

Garden Layout

The garden was located close to the home when space allowed.¹² ¹³ The shape was generally rectangular.

Vegetables

The most popular crops were those that could be easily stored or preserved for the winter. White potatoes were a very important part of the diet, especially that of the Irish families, and generally took up the largest portion of the garden.¹⁴ Main meals nearly always included a potato.¹⁵

Cabbage was also an important crop. During the winter the heads were stored in pits dug into the soft earth of the garden along with beets, turnips, carrots and celery. These pits were covered with a thick layer of soil to keep out the frost.¹⁶ ¹⁷ An opening allowed easy retrieval of the produce.¹⁸

Tomatoes and parsley were popular as well.¹⁹ Farsley, mulched with a thick layer of dry leaves in the fall, could be picked all winter long.²⁰ Even those who had no room for a garden would often plant a few tomatoes in the dooryard.²¹ Tomatoes were commonly grown on stakes and canned for winter use.²² 23 24

Other vegetables that were often grown on stakes were green snap beans, lima beans and tall peas.^{25 26} Extras were oftentimes dried for winter use.^{27 28} Peppers, corn, squash, lettuce, radishes and spinach were also grown, but in limited quantities, as they were either not commonly

stored or they took too much space in the small gardens.²⁹ 30 31 32

Garden Management

In March or April the gardens were turned over by hand.³³ ³⁴ ³⁵ ³⁶ Fertilization was accomplished by spreading manure in the spring from the livestock raised by the powdermen. The same lime used for whitewashing the house each year for the 4th of July or used for disinfecting the outhouse or chicken coop was spread on the gardens before planting to "sweeten the soil".³⁶ ³⁷ ³⁸ ³⁹

Tools and Equipment

Basic garden tools consisted of a hoe, spade, rake, digging fork, a trowel and a wheelbarrow.⁴⁰ 41 42 43 Tools were stored in a shed near the house.⁴⁴ 45 46 Many gardens were surrounded with wooden paling fences which were often whitewashed.⁴⁷ 48 Fencing excluded the larger garden pests, e.g. wildlife, children and dogs. Water was carried from the pump in a metal bucket.

Powdermen who spent long exhausting hours in the mills six days a week had limited time and energy to tend to vegetable plots.⁴⁹ Children and wives helped with the watering, harvest and pest management.⁵⁰ 51 52 53

Longwood Program

Insects & Diseases

The most important vegetables in the garden, such as potatoes, cabbage and tomatoes, received the greatest attention in terms of pest control. Handpicking the insects was the primary means of control. The insects were then smashed underfoot or dropped into a container of kerosene or "coal oil". Many times this was the job of the children after school or even before school when the insects were still sluggish from the cold night air.⁵⁴ 55

Seed Sources

Most seeds or transplants were purchased from farmers at the King Street Market or from shops in Wilmington.⁵⁶ ⁵⁷ A few ordered by mail from seed catalogs.⁵⁸

The vegetable gardens of the millworkers were an important part of their everyday lives. Not only did they supply their families with fresh, healthful produce which enhanced their quality of life, but they also provided enjoyable recreation. The addition of the worker's garden to the interpretation of Blacksmith Hill provides the visitor with a more complete picture of the life of the powderman and his family on the banks of the Brandywine.

Footnotes

¹Yetter, Interview, 25 July 1984. ²Meriggi, Interview, 10 June 1984. ³Cheyney, Interview, 23 January 1984. ⁴Yetter, Interview, 25 July 1984. ⁵Cheyney, Interview, 23 January 1984. ⁶Bruno, Interview, 12 March 1981. ⁷Cammock, Interview, 24 July 1984. ⁸Meriggi, Interview, 24 July 1984. ⁹Cammock, Interview, 24 July 1984. ¹⁰Cheyney, Interview, 23 January 1984. ¹¹Yetter, Interview, 25 July 1984. ¹²Lattomus and Walls, Interviews, 12,25 June 1969. ¹³Yetter, Interview, 25 July 1984. ¹⁴Cammock, Interview, 24 July 1984. ¹⁵Kauss, Interview, 17 February 1981. ¹⁶Toomey, Interview, 8 February 1984. ¹⁷Cheyney, 23 January 1984. ¹⁸Meriggi, Interviews, 10 June 1984, 24 July 1984. ¹⁹Meriggi, Interview, 24 July 1984. ²⁰Yetter, Interview, 25 July 1984. ²¹Yetter, Interview, 25 July 1984. ²²Cammock, Interview, 24 July 1984. ²³Lattomus and Walls, Interviews, 12, 25 June 1969. ²⁴Meriggi, 24 July 1984.

²⁵Cammock, Interview, 24 July 1984.

²⁶Cheyney, Interview, 23 January 1984.

²⁷Meriggi, Interview, 24 July 1984.

²⁸Cheyney, Interview, 15 February 1984.

²⁹Meriggi, Interview, 24 July 1984.

³⁰Cammock, Interview, 24 July 1984.

³¹Cheyney, Interviews 19 December 1983, 23 January 1984, 15 February 1984, 26 March 1984.

³²Meriggi, Interview, 24 July 1984.

³³Yetter, Interview, 25 July 1984.

³⁴Cammock, Interview, 24 July 1984.

³⁵Cheyney, Interview, 15 February 1984.

³⁶Dougherty, Interviews, 12 January 1955, 6 February 1955.

³⁷Yetter, Interview, 25 July 1984.
³⁸Bruno, Interview, 12 March 1981.
³⁹Cammock, Interview, 24 July 1984.
⁴⁰Meriggi, Interview, 24 July 1984.
⁴¹Yetter, Interview, 25 July 1984.
⁴²Leto, Interview, 25 May 1983.
⁴³Cheyney, Interview 15 February 1984.
⁴⁴Cammock, Interview, 24 July 1984.
⁴⁵Yetter, Interview, 25 July 1984.
⁴⁶Leto, Interview, 25 May 1983.
⁴⁷Meriggi, Interview, 24 July 1984.
⁴⁸Cheyney, Interview, 3 April 1964.

⁴⁹Photograph H50-17.

⁵⁰Cheyney, Interview, 23 January 1984. ⁵¹Gamble, Interview, 24 April 1981. ⁵²Cammock, Interview, 24 July 1984. ⁵³Cheyney, Interview, 23 January 1984. ⁵⁴Meriggi, Interview, 24 July 1984. ⁵⁵Yetter, Interview, 25 July 1984. ⁵⁶Cammock, Interview, 24 July 1984. ⁵⁷Dunlop, Interview, 30 April 1984. ⁵⁸Delaware Gazette, 8 March 1850. ⁵⁹Delaware Gazette, 12 March 1850. ⁶⁰Cheyney, Interview, 23 January 1984.

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