

## Asparagus:



### **Etymology:**

Late O.E. sparage, from M.L. sparagus, from L. asparagus, Gk. asparagos, probably from PIE base \*sp(h)er(e)g- "to spring up" (though perhaps from a non-Gk. source). Respelled c.1600 to conform with Gk. Sparrowgrass is 17c. folk etymology, persisting into 19c.<sup>12</sup>

The asparagus plant is made up of top (fern), crowns (buds) and roots. All three are vital to a productive plant. The fern is known as the “factory” which, through photosynthesis, produces food stored in the crown and the roots below ground. The number of vigorous spears in the spring depends upon the amount of food produced and stored in the crown during the preceding summer and fall. Producing a good crop of fern is necessary for ensuring a good crop of spears the following spring. It is important not to cut the old fern at the end of the season until it is completely dead. The best time to remove old fern is in

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<sup>1</sup> "Asparagus." The Oxford Encyclopedia of Food and Drink in America. 2004

<sup>2</sup> "Asparagus". Encyclopedia of Food and Culture. 2003.

the spring since valuable food and nutrients move during the autumn months from the dying fern to the crown.<sup>3</sup>

**Nutritional Value:**

1 Cup of Asparagus:

0g Fat

0g Saturates

3mg Salt

2g Sugar<sup>4</sup>

Only the young shoots of asparagus are eaten. Asparagus is low in calories, contains no fat or cholesterol, and is very low in sodium. It is a good source of folic acid, potassium, dietary fiber, and rutin. The amino acid, asparagine, gets its name from asparagus, the asparagus plant being rich in this compound. Asparagine is also found commonly in French fries and potatoes.<sup>5</sup>

**Varieties:**

There are over 300 know varieties of Asparagus, these are the most widely seen in the United States today:

*White:* Preferred in Europe, these sunlight-deprived stalks are a little milder and more delicate. It is difficult to find fresh in the United States, but widely available canned (usually in jars).

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<sup>3</sup> Bridgeman, T.. The Young Gardener's Assistant. 8. New York

<sup>4</sup> Cornell University:

<http://www.hort.cornell.edu/department/faculty/rangarajan/veggie/freshnow/asparagusstr.html>

<sup>5</sup> Lott, Charles. *The Book of Asparagus*. Edinburgh: Turnbull and Spears, 1901 p.29

*Violet or Purple:* This variety is commonly found in England and Italy and has a very thick substantial stock.

*Green Asparagus:* Ranging from pencil-thin to very thick. Most American asparagus is of this variety.

*Wild:* Asparagus grows wild in some areas, particularly in Europe. You'll most likely have to hunt down your own, as it is rarely available fresh in markets, except in Italy and the south of France.

## **Ideal Growing Conditions:**

### **Site:**

A good amount of sun is ideal. Asparagus needs at least 8 hours of sun per day. Since asparagus is a long-lived perennial, it should not be planted where trees or tall shrubs might eventually shade the plants or compete for nutrients and water.<sup>67</sup>

### **Soil:**

The crown and root system can grow to a large size, roughly 5 to 6 feet in diameter and 10 to 15 feet deep. Therefore, where possible, select a soil that is loose, deep, well drained and fertile. On sites with poor soil, incorporate manure and compost into the soil

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<sup>6</sup> Columbus, Homer. *Asparagus Production*. Chicago: Orange Judd Publishing, 1942. P.13

<sup>7</sup> Purdue University :[http://www.hort.purdue.edu/hort/ext/Pubs/ho/HO\\_096.html](http://www.hort.purdue.edu/hort/ext/Pubs/ho/HO_096.html)

and plant and till under two successive cover crops the season before you plant your asparagus.

**Planting:**

Asparagus is planted in the spring. The simplest method is to plant one-year-old crowns. It is important to lay down ground soild prior to growing asparagus for the first time. Even though the young crown will appear to be a lifeless mass of roots, it will begin to send up small green shoots shortly after planting.<sup>8</sup>

Set plants 18 inches a part in rows five feet apart. Dig holes or trenches about 8 inches deep and 10 inches wide. Spread the roots in the bottom of the hole or trench and cover the crown with about 2 inches of soil. The tops of the crowns should be about 6 inches below the soil surface when the trenches are completely filled. This allows for cultivation by hoe or tiller and also provides a sufficient depth of soil for the new buds to develop on top of the crown.<sup>9</sup>

The alternative to using one-year old crowns is to start asparagus transplants from seeds as you would start other vegetable transplants. About 6 to 8 weeks before planting, sow the seeds directly into pots. Thin to one plant per pot and, after all danger of frost has passed, plant the young seedlings as described above for crowns.<sup>10</sup>

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<sup>8</sup> Columbus, 23

<sup>9</sup> University of New Hampshire Cooperative Extension: Guide to Growing Asparagus

<sup>10</sup> Columbus, Homer. *Asparagus Production*. Chicago: Orange Judd Publishing, 1942. P.20

### **Origins, History, Migration:**

The exact origins of asparagus are hard to pinpoint, although it is known that it is native to the Eastern Mediterranean and parts of Asia. Asparagus has been found naturalized in many different parts of the world today, and it is unclear exactly when it was naturalized. How long the plant was used as a medical vegetable is likewise uncertain, but it was known and highly prized by the Romans at least 200 B.C.. Romans were apparently knowledgeable about the difference in quality between the difference in varieties that they experimented with, and knew the best places to grow the crop. The most popular way that they Romans prepared to their asparagus was to pick it, let it dry, then when they wanted to eat it, simply cook it for a few minutes.<sup>11</sup>

While The Gauls, Germans, and Britons used indigenous asparagus as medicine, its cultivation and use as a vegetable was made known to the world at large by invading Roman armies as they expanded into different areas. By the 16th Century, asparagus gained popularity in France and England. From there, the early colonists brought it to America. The French were the main exporters of the crop at the time. Asparagus is often called the “Food of Kings.” For example, King Louis XIV of France was so fond of this delicacy that he ordered special greenhouses built so he could enjoy asparagus all year-round.<sup>12</sup>

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<sup>11</sup> Kidner, Alfred W.. *Asparagus*. New York: Faber and Faber, 1959. P.15

<sup>12</sup> Asparagus from California Database:  
<http://www.calasparagus.com/industry/history.htm>

The medicinal virtues formerly attributed to asparagus comprise a wide range. The roots, sprouts, and seeds were used as medicine. The fresh roots are diuretic. A syrup made of the young shoots and an extract of the roots has been recommended as a sedative in heart affections. One of the remedies named *species diuretica*- a mixture of asparagus, celery, parsley, holly, and sweet fennel was a favorite preparation for use in dropsy and gravel. Among Greeks and Romans it was one of the oldest and most valued medicine. It was believed that if a person anointed himself with a liniment made of asparagus and oil that bees would not approach or sting him. It was also believed that if the root is put on a tooth that aches violently it causes it to fall out without pain.<sup>1314</sup>

There is little evidence early of when exactly asparagus migrated over to the Americas. It is assumed that settlers brought it over along with other developed vegetables, mainly from England and France. There is early evidence, based on seed catalogues, of the crop being sold on a commercial level in the early 18<sup>th</sup> century in eastern parts of the country.<sup>15</sup>

## **Rhubarb**

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<sup>13</sup> Kidner, P.56

<sup>14</sup> Wilton-Smith, Jane. *Asparagus: A Miscellany of Gastronomic and Horticultural Information*. New York: Stylus, 1986. P.86-88

<sup>15</sup> Bridgeman, T. *The Young Gardener's Assistant*. New York:1840



### **Etymology:**

c.1390, from O.Fr. rubarbe, from M.L. rheubarbarum, from Gk. rha barbaron "foreign rhubarb," from rha "rhubarb" (associated with Rha, ancient Scythian name of the River Volga) + barbaron, neut. of barbaros "foreign." Grown in China and Tibet, it was imported into ancient Europe by way of Russia.<sup>1617</sup>

### **Varieties:**

A Few Common Varieties:

*Canada Red*: Red, smaller Red stalks throughout, long thick petioles, Introduced in Canada and very popular, Stems are shorter and more slender than many seedling types but very tender, High quality and good Red color, produces few seed stalks.

*Crimson Red*: Also known as Crimson Cherry, Crimson Wine, Crimson. This is reportedly the only variety of consequence in Oregon. It produces brightly colored Red

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<sup>16</sup> "Rhubarb". Encyclopedia of Food and Culture. 2003.

<sup>17</sup> "Rhubarb" The Oxford Encyclopedia of Food and Drink in America. 2004

stalks with the unique characteristic of being Red throughout under normal temperature and moisture conditions of the Pacific Northwest.<sup>18</sup>

*Valentine*: Thick Red stalks, Excellent for home gardeners, long Red stalks, Deep Red petioles that retain their color when cooked, Vigorous, Known for its Red petioles and the production of few or no seed stalks.<sup>19</sup>

*Sunrise*: A pink variety. Sunrise rhubarb was a selection from open-pollinated seed of the Ruby variety of Rhubarb. Sunrise has a thicker stalk than Ruby, is more productive, has a higher quality and is more suitable for forcing. Sunrise was selected in the 1940's and is still grown today in Nova Scotia.

### **History:**

Rhubarb is a vegetable with a unique taste that makes it a favorite in many pies and desserts. It originated in Asia over 2,000 years ago. It was initially cultivated for its medicinal qualities; it was not until the 18th century that rhubarb was grown for culinary purposes in Britain and America. Rhubarb is often commonly mistaken to be a fruit but rhubarb is actually a close relative of garden sorrel, and is therefore a member of the vegetable family. Rhubarb is rich in vitamin C and dietary fiber.<sup>202122</sup>

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<sup>18</sup> Vitt, Sandi, and Michael Hickman. *Rhubarb: More Than Just Pie*. Alberta: University of Alberta Press, 2000. P.55

<sup>19</sup> Seeds By Size Vegetable Seed List, <http://www.seeds-by-size.co.uk/mainveg.htm>, from Seeds-By-Size, Hertfordshire United Kingdom

<sup>20</sup> Clifford M. Foust, *Rhubarb: The Wondrous Drug*, Princeton University Press, Princeton, New Jersey, 1992. P.18

<sup>21</sup> Ripley, Charles. "Rhubarb." *The New American Cyclopaedia*. XIV. 1862 p.763



Rhubarb is a cool season, perennial crop. It requires temperatures below 40– F to break dormancy and to stimulate spring growth and summer temperatures averaging less than 75– F for vigorous vegetative growth. The Northern U.S. and Canada are well suited for rhubarb production. In the United States it grows best in the northern states from Maine south to Illinois and west to Washington State. Once planted, rhubarb plantings remain productive for 8 to 15 years.<sup>23</sup>

Rhubarb responds to good care and watering. Remove the flower stalks as they are seen. During the first year of planting, the stalks should not be picked, since food from the leaves is needed to nourish the roots for the next year's growth. One light picking may be taken during the year following planting if the plants are vigorous, and beginning the second year following planting, the entire plant may be harvested. When harvesting rhubarb, the first step is to cut the stalks at the soil line or simply pull them out individually. All of the stalks of a plant may be harvested at one time, or pulled out selectively over a 4-6 week period.<sup>24,25</sup>

**Soil:**

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<sup>22</sup> Rhubarb, <http://www.veg.org/veg/Orgs/VegSocUK/Recipes/rhubarb2.html>, (from "The Vegetarian Spring 1995", The Vegetarian Society UK, Moved to: <http://www.vegsoc.org/>)

<sup>23</sup> Grieve, Margaret. *A Modern Herbal*. Denver: Courier Dover Press, 1971.

<sup>24</sup> Ripley, P.32

<sup>25</sup> Untitled, <http://agweb.clemson.edu/Hort/drd/Rhubarb.html>

Rhubarb tolerates most soils but grows best on fertile, well-drained soils that are high in organic matter. A clean planting site is essential for the cultivation of rhubarb since no herbicides are registered for use on rhubarb. Small areas of perennial weeds can quickly build up to serious proportions. To prevent this, all perennial weeds should be killed the year before planting. The fields should be cultivated in the spring and after cutting, and hand hoeing may also be necessary. Rhubarb is relatively free of insect and disease problems.<sup>2627</sup>

**Planting:**

Space rhubarb roots 24 to 48 inches apart in rows 3 to 4 feet apart for commercial growing. These distances can be decreased to 36 inches for plants in rows and rows for smaller gardens (non commercial). Much smaller than this will seriously crowd the plants and result in a diminished crop and increase the likelihood of spreading disease. A 2-3 year old plant, the Victoria variety can be 4 feet (1.25 meter) in diameter and 3 feet (1 meter) tall. Plant the roots with the crown bud 2 inches (5 cm) below the surface of the soil. The hole for the crown should be dug extra large and composted manure, peat moss or dairy organic should be mixed with the soil to be placed around the roots. Firm the soil around the roots but keep it loose over the buds. Water the crowns after planting. Give the plant 1/4 cup of 5-10-10 worked in to the top 10 inches of soil at planting time. Good garden drainage is essential in growing rhubarb. For home gardeners, planting in raised beds helps ensure against rotting of the crowns.<sup>282930</sup>

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<sup>26</sup> Clifford, p. 45

<sup>27</sup> 01701479 (Rhubarb, Pieplant.), <http://lep.cl.msu.edu/msueimp/htdoc/mod03/01701479.html>

<sup>28</sup> 03900106 (Growing Rhubarb), <http://lep.cl.msu.edu/msueimp/htdoc/mod03/03900106.html>

<sup>29</sup> Vitt, P. 62

<sup>30</sup> Clifford M. Foust, *Rhubarb: The Wondrous Drug*, Princeton University Press, Princeton, New Jersey, 1992.

**Harvest:**

Begin harvesting the third year after planting, after two full seasons of growth. Pull the stalks from the crown with a strong pull, and cut off the leaves. Add leaves to the compost pile or leave in the garden. Begin harvesting in the spring when the leaves have fully expanded. By cutting only a few stalks at a time growers can harvest rhubarb throughout the whole summer. To maintain stalk vigor remove seed stalks as they develop.<sup>31</sup>

**History:**

The Earliest records of Rhubarb date back to 2700 BC in China where Rhubarb was used for medicinal purposes. According to Lindley's treasury of Botany, the technical name of the genus (*Rheum*) is derived from Rha, the ancient name of the Volga, on whose banks the plant is grow. There are those who called it Rha Ponticum and others Rheum or Rha-barbarum. Others derive the name from the Greek rheo ('to flow'), in an allusion to the purgative properties of the root. One of the most famous pharmacologist of ancient times Discorides, spoke of a root known as "rha" or "rheon", which came from Bosphorus, the winding strait that separates Europe from Asia.<sup>323334</sup>

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<sup>31</sup> Rhubarb." *Encyclopedia Britannica*. 1911. 1911

<sup>32</sup> Veggies Unit: your on-line guide to vegetarianism, <http://www.honors.indiana.edu:80/~veggie/recipes.cgi/>, (The University of Illinois, College of Agricultural, Consumer and Environmental Sciences, Foods and Nutrition Solutions Series)

<sup>33</sup>Ripley, Charles. "Rhubarb." *The New American Cyclopedia*. XIV. 1862

<sup>34</sup> Toussaint, Maguelleone. *A History of Food*. Blackwell Publishing, 1992.

It is now a well established fact that although various types of rhubarb grow in different parts of the world (Altay, Siberia, the Himalayas, Tibet and Mongolia), true rhubarb, that is to say the kind which offers such very special active elements is the Chinese variety, which is only to be found growing in Ama Surga and Dsun-molun, in the mountainous regions of Kansu province.<sup>35</sup>

### **Europe:**

Marco Polo, who knew all about the Chinese rhubarb rhizome, talked about it at length in the accounts of his travels in China. As a result of eastern Arabic influence, Chinese rhubarb was already widely used in European pharmacy, especially in the school of Salerno. The roots of the Chinese type are still used in medicine. A planting of rhubarb is recorded in Italy in 1608 and 20-30 years later in Europe. In 1778 rhubarb is recorded as a food plant in Europe. The earliest known usage of rhubarb as a food appeared as a filling for tarts & pies. Some suspect that this was a hybrid of the Chinese variety of rhubarb.<sup>36</sup>

### **First Appearance in the United States:**

Early records of rhubarb in America identify an unnamed Maine gardener as having obtained seed or rootstock from Europe in the period between 1790-1800. There is other

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<sup>35</sup>Skinner, P.33

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evidence that suggests that it came over to the United States in the year of 1793. He introduced it to growers in Massachusetts where its popularity spread and by 1822 it was sold in produce markets.<sup>37</sup>

One reference says that "Ben Franklin is generally credited with introducing rhubarb to America," adding that he sent seeds from Scotland to Philadelphia botanist John Bartrum in 1770. Another citation mentions that these were "true rhubarb seeds," that is, probably medicinal rhubarb, not culinary.<sup>38</sup>

On April 13, 1809, Thomas Jefferson made the following entry in his garden journal at Monticello, "One row of *Rheum undulatum*, esculent rhubarb, the leaves excellent as spinach." Obviously he was confused, as the editor of the 1944 edition of *Thomas Jefferson's Garden Book*, points out. Jefferson was probably referring to *R. rhaponticum*. In the end, the microclimate at Monticello, which is too hot in the spring, proved to be unsuitable for growing rhubarb; there is none there today.<sup>39</sup>

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<sup>37</sup> Untitled web page, <http://agweb.clemson.edu/Hort/drd/Rhubarb.html>

<sup>38</sup> *Ibid*, Foust

<sup>39</sup> *Thomas Jefferson's Garden Book*, annotated by Edwin Morris Betts, introduction by Peter J. Hatch, Thomas Jefferson Memorial Foundation, 1999.

