The Pie Plant – Rhubarb

1. What is it?
2. Rhubarb suffers from an identity crisis. It’s a vegetable that really hangs out with the fruit in recipes. It is a herbaceous perennial vegetable.
3. Rhubarb is a relative of buckwheat and belongs to the genus *Rheum* in the family *Polygonaceae*
4. History of Rhubarb
5. Rhubarb originated about 5000 years ago in Western China, Tibet, Mongolia, Siberia and neighboring areas where it was primarily used for medicinal purposes…as a laxative, to reduce fever, induce vomiting and cleanse the body.
6. Rhubarb is given to the Wu emperor of the Liang dynasty (reign: 557-579) to cure his fever but only after warning him that rhubarb, being a most potent drug, must be taken with great moderation.
7. During the Song dynasty (960-1127) rhubarb is taken in times of plague.
8. During the Yuan dynasty (1115-1234) a Christian sentenced to a hard punishment is pardoned after using previously collected rhubarb to heal some soldiers.
9. During the end of the Ming dynasty (1368-1644) a Ming-general tries (in vain) to commit suicide by eating rhubarb medicine.
10. 1759 the Qianlong emperor of the Qing dynasty (1644-1911) forbids export of tea and rhubarb to the Russians after a border conflict in the north part of China. In 1790 the same emperor declares that the Western countries will have to do without rhubarb.
11. The name “rhubarb” comes from the Latin ***rha barbarum***. Rhubarb grew along the banks of the river Rha (the ancient name of the River Volga). At the time, this region was considered foreign, or barbarian territory. Thus, rhubarb literally means, ‘from the barbarian, Rha’!
12. It made its way to Europe along the Silk Road in the 14th century, and didn’t arrive in the US until the end of the 18th century.
13. Early records of rhubarb in America identify an unnamed Maine gardener as having obtained seed or root stock from Europe in the period between 1790-1800.
14. He introduced it to growers in Massachusetts where its popularity spread and by 1822 it was sold in produce markets.
15. Health Benefits
16. Rhubarb is low in calories, and has zero fat and sodium. It is also 95% water!
17. Rhubarb is a good source of potassium, which is important for many people who take certain blood pressure medications.
18. Rhubarb does have a modest amount of vitamin C, but the fact that it is usually cooked, really diminishes the amount available when eaten.
19. Rhubarb also has vitamin K, the one responsible for helping blood to clot. Even people who are on blood thinners can consume rhubarb, and like the rest of us, they should limit themselves to one piece of pie!
20. You may hear that rhubarb is a good source of calcium. This is both true and false.
21. One cup of diced rhubarb contains about 105 mg of calcium, which is unusually high for vegetables.
22. However, the calcium in rhubarb is bound by a substance called oxalic acid. This substance basically means the calcium can’t be absorbed by the body. The oxalic acid is responsible for the puckering power of raw rhubarb!
23. You might expect rhubarb to be a good source of fiber…not so. Although it can be tough and stringy, rhubarb doesn’t contain much fiber. Only 2 grams per cup!
24. So what is so good about this unusual vegetable? ANTIOXIDANTS!
25. Rhubarb that has a lot of red/pink has some of those same antioxidants that are found in other red & pink fruits and vegetables. Lycopene and anthocyanins are powerful antioxidants that promote healthy heart, eyes and immune system. A lot of research is being done related to lycopene and certain cancers, especially prostate cancer. In order to get that Lycopene, the rhubarb must be cooked!
26. Rhubarb is also a good source of Lutein, an antioxidant that has important health benefits for skin and eyes. Much research is being done with Lutein and macular degeneration. Rhubarb with greener stems are higher in Lutein than the deep red ones.
27. Of the ancient medicinal uses, rhubarb does seem to have some laxative qualities.
28. Growing Rhubarb
29. Prefers a cool, damp climate and struggles in a dry or hot area. In fact, it needs at least two months of cold, not just cool, weather.
30. Rhubarb does not “breed true” from seed. You really need to grow it from root divisions taken from the base of the plant. Plant about 4 inches deep and 3-4 feet apart in holes filled with well-aged manure or compost. They need a lot of water and should be planted in well-draining soil.
31. As soon as new plants sprout leaves, apply a layer of organic mulch.
32. After the leaves die in the fall, bury the crowns with manure, leaves, straw or compost. In the spring pull the organic material away from the plant to let the sun warm the soil. During extreme cold snaps, cover the rhubarb with evergreen boughs.
33. Generally, rhubarb is not prone to pests, but it can be bothered by cabbage worms or a beetle called rhubarb curculio. The beetle bores into every part of the plant but fortunately they are easily removed by handpicking.
34. To maintain a healthy rhubarb patch, divide the plants every four years or so. When you notice the plant isn’t producing big leaves, it might be time to divide. Divide in early spring before the leaves get much taller than 6 inches.
35. Recommended varieties include: *Canada Red, Cherry Red, Crimson Red, MacDonald, Ruby, Valentine, Green Petioles, and Victoria*
36. Harvesting & Storing
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38. Wait until the leaves are fully developed or nearly so the pull the stalks away from the base, like you would pull a stalk of celery off of the bunch. Then snap it off at the bottom. Don’t “cut” with a knife as rot can set in.
39. Do not harvest during the first year of planting. Stalks may be harvested for 1-2 weeks the second year and for 8-10 weeks during the third and subsequent years.
40. Never take more than half of the stems in one year and stop harvesting by mid-summer. If the plants are not going to be used the following season, you can harvest into the fall.
41. Storing
42. Freshly harvested rhubarb stalks can be kept in the refrigerator, unwashed and wrapped tightly in plastic, for up to three weeks.
43. Rhubarb is well suited for freezing. Cut into ½ inch pieces, spread on sheet pan and plac in freezer. Once frozen, place rhubarb into heavy duty plastic freezer bags and seal tightly. Rhubarb will keep up to six months in this way.
44. Rhubarb can also be dehydrated and stored in plastic bags or other sealed containers. Rehydrate with fruit juice to minimize the amount of sugar that is needed in cooking.
45. Cooking with Rhubarb
46. Rhubarb is VERY tart and therefore requires sweetening when cooking. Sugar, juice, honey are commonly used to counter that tart flavor. The general rule is ½ cup or more of sugar per pound of rhubarb.
47. Because rhubarb is 95% water, it is only necessary to barely cover the stalks with water when cooking/stewing.
48. Rhubarb can be combined with many different fruits to make jam. The amount or addition of pectin is dependent upon the type of fruit(s) used. Find a recipe that includes the fruit you wish to use so the proportions are correct and a “jam-like” consistency is achieved.
49. Rhubarb should always be cooked in a non-reactive pan…anodized aluminum, stainless steel, Teflon coated aluminum or enamel-coated cast iron cookware. Rhubarb cooked in reactive metal pots (aluminum, iron and copper) will turn an unappetizing brown color because metal ions flake off the pan and react with acids in the fruit. The brown compounds that are formed darken both the rhubarb and the pan.
50. Rhubarb can also be used on savory dishes or pickled!
51. Fun Facts about Rhubarb
52. Rhubarb root produces a rich brown dye similar to walnut husks.
53. Rhubarb leaves are poisonous and should never be used in food preparation. The leaves contain high concentrations of the same compound (oxalic acid) that are found in the stem. In addition to the high amount of oxalic acid, the leaves are believed to contain several other unidentified toxins.
54. In northern Asia, the round pouch of unopened flowers is cooked as a delicacy.
55. Red and green stalks don’t taste much different even though some claim the red stalks taste more like “rhubarb”. The red ones are not sweeter but certainly nobody can argue they add a nice color to recipes.
56. In British Theatre and early radio drama, the words “rhubarb, rhubarb” were repeated for the effect of unintelligible conversation in the background. TRY IT!
57. The oxalic acid in rhubarb stems (one of the compounds that makes you pucker) can be used to scour cooking pots. The other puckering compound is malic acid.
58. Rhubarb can also help the ozone! In the 1980’s a hole was detected in the ozone layer. Scientists found that certain compounds called CFC’s were a primary reason for the ozone problem. Usual methods for breaking down CFC’s were costly and dangerous but in 1995 two Yale scientists discovered that oxalic acid, found in rhubarb, helped neutralize CFC’s!
59. If aphids are a pest in your flower garden, rhubarb to the rescue: Chop 3-5 rhubarb leaves and add to a quart of water. Boil for 30 minutes. Strain and add a dash of liquid, non-detergent soap. Fill spray bottle with liquid and use it on aphids. Because the rhubarb leaves are poisonous, DON’T use on edible plants.