

Growing Rhubarb in Montana

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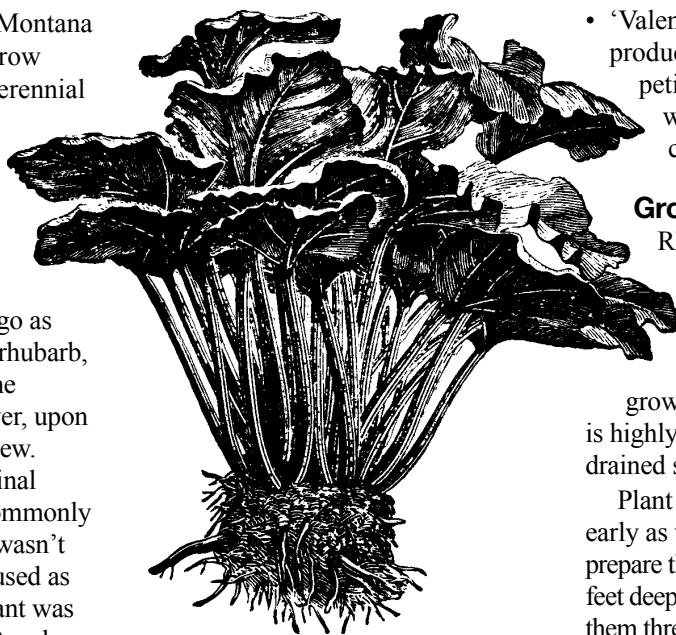
Rhubarb is a hardy perennial that tolerates Montana's cold winters and dry climate and is a good source of vitamin C and iron. This fact sheet includes tips on soil preparation, mulching, suitable cultivars, planting, harvesting and dividing crowns as well as information about some common rhubarb pests.

Growing vegetables in Montana is tough, unless you grow rhubarb. This hardy perennial tolerates Montana's cold winters and dry climate and is a good source of vitamin C and iron. It is widely used in desserts, jams, and pies.

The Chinese cultivated rhubarb for medicine as long ago as 2700 BC. The genus name for rhubarb, *Rheum*, is derived from Rha, the ancient name for the Volga River, upon the banks of which the plant grew. Marco Polo brought the medicinal plant into Europe and it was commonly grown in Italy by 1608. But it wasn't until 1778 that it was actually used as a food in tarts and pies. The plant was brought to America about 1790 and was being marketed by 1822.

There are many cultivars of rhubarb. Among the most common are 'Canada Red,' 'Cherry Red,' 'Crimson Red,' 'Macdonald' and 'Valentine.'

- 'Canada Red': This high quality cultivar has small, thick, tender petioles and is very popular in Canada.
- 'Cherry Red': This vigorous red cultivar produces long, thick deep-red petioles.



- 'Crimson Red': Also known as 'Crimson Cherry,' this cultivar forms brightly colored red stalks with the unique characteristic of being red throughout under normal localized growing conditions of the Pacific Northwest.
- 'Macdonald': This cultivar produces pink stalks and is vigorous and upright-growing. It is resistant to wilt and root rot and is probably the most widely available cultivar.

- 'Valentine': This old cultivar produces long, thick deep red petioles that retain their color when cooked. It is an excellent choice for home gardens.

Growing Rhubarb

Rhubarb does best on slightly acid soils with a pH between 6.0 and 6.8, but it will tolerate the somewhat more alkaline Montana soils. It will grow in almost any type of soil but is highly productive on fertile, well-drained soils high in organic matter.

Plant rhubarb roots in spring as early as the ground can be worked. To prepare the planting bed, dig holes two feet deep and two feet wide and space them three feet apart in all directions. Fill the bottom of each hole with a six inch layer of compost or well-rotted manure.

Mix top soil that was dug out of each hole with equal amounts of compost or manure and fill the hole with this mixture to a depth of one foot. Place the root piece in each hole so that the top, where the plant buds are located, sits 3-4 inches below the soil surface.

Tamp the soil firmly around the roots and fill each hole with the soil mixture until level with the surrounding soil. If your soil remains too wet to work in early spring you can plant rhubarb in the fall after the leaves have died down. If you cannot depend upon winter snow cover, mulch the fall-set crowns to reduce winter heaving.

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Use no fertilizer in the planting year. Beginning in the second year, side dress each plant with a half pound of a complete fertilizer such as 16-16-16 just as the petioles first appear. Continue this practice each spring and in fall when the leaves have died down but before the ground has frozen. Straw around the plants will keep weeds under control.

The plants may begin to form flower stalks in midsummer as a result of warm, long days. Remove these flower stalks as soon as they appear. Letting them fully form will shunt nutrients away from the petioles and roots and into the unwanted seed heads.

Harvest no crop the year of planting. The plant uses food from the leaves to nourish the roots and enlarge the crown. If plants are healthy, harvest for a few weeks in the second year by pulling the petioles from the crowns. Do not cut them.

Never harvest all the petioles since doing so may deplete the plant of sufficient nutrients to overwinter the roots. Harvest period should last about 4-6 weeks in subsequent years so long as plants remain vigorous.

The leaf blades of the rhubarb contain poisonous oxalic acid in quantities sufficient to cause human fatalities if they are ingested. **DO NOT EAT RHUBARB LEAF BLADES.** Instead, cut the blades from the petioles (leaf stalks) and eat only the stalks.

Propagation

After four to six years, rhubarb plants can become crowded and the stalks will grow noticeably thinner. Divide the crowns in the early spring before new shoots emerge or in fall after the foliage has died down.

Dig the crowns and cut them into sections between the large buds. Leave at least one bud on each crown section. Crown pieces should be as large as possible. Protect the new crowns from drying or freezing if they are not to be planted immediately. Before replanting, discard crown pieces that are damaged or rotted. Plant the new crowns in the manner described above.

Pests

Rhubarb is a hardy perennial that is not usually seriously affected by insect pests or diseases. There are a few, however, of which you should be aware.

Several diseases can attack rhubarb but none are more destructive than "Red Leaf." In Canada, this bacterial root and crown rot has destroyed up to 50 percent of some plantings. In Montana, isolated outbreaks are common and have caused individual patches to decline rapidly. Examination of the crown and root area often reveals a chocolate brown discoloration accompanied by root cavities. However, the most visible symptom is the development of red leaves on infected plants.

The pathogen, a bacterium called *Erwinia rhapontici*, is readily transmitted via transplanting infected crowns. In establishing new plantings only disease free crowns should be selected. Documented movement in Montana has occurred when infected crowns are used to establish new plantings. New crowns must not be replanted in areas where the disease has previously been observed. Evidence exists that root and foliage feeding insects can move the bacteria from infected to uninfected plants. Therefore good insect management will also reduce localized spread.

Several foliar diseases including both powdery and downy mildew, gray mold, and various fungal leaf spots are known to occur on rhubarb. However, due to Montana's general dry climate they are of little or no importance, with the exception of a few wet intermountain regions.

Virus diseases also attack rhubarb. While not common in Montana an occasional infection has been observed. Turnip mosaic, a common virus in rhubarb can be mistaken for red leaf caused by *Erwinia*. Its presence has not been verified in Montana but reports of this virus in Canada are common.



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