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*Growing*

# Rhubarb

**R. Ralph Clark**

Extension Horticulture Specialist

**Federal Cooperative Extension Service  
Oregon State College • Corvallis**

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# Growing Rhubarb

**R**HUBARB is one of the popular early perennial vegetable crops. It is a good source of vitamin C and calcium, and can be grown in the home garden as well as for marketing. The roots of this crop are forced in some areas to get the long tender stalks for winter and very early spring use.

Rhubarb came originally from China and Russia where the fleshy roots were used medicinally. It was introduced into Europe about 1608 and became a common vegetable in America early in the 18th century. New Jersey and California are two of the largest producing areas at the present time.

The underground portion of the rhubarb plant is composed of a large woody rhizome with fibrous roots. The edible portion of this plant is the petiole of the leaf which grows from the buds found on the crown near the surface of the soil. With good culture, the petioles of most varieties grow to a large diameter and length in a rather short time.

Leaves of the rhubarb plant contain a high amount of oxalic acid and its soluble salts which make them unfit for food under any circumstances.

Rhubarb is quite hardy, the leaves standing three or four degrees of freezing without damage. The woody rhizome and crown will stay in a frozen or very cold dry soil for months without any damage from cold or desiccation. Many growers let the roots stay in a frozen or dry condition to rest between crops, but this is not always necessary. Some California growers keep their fields producing almost the year around by use of fertilizer and irrigation. Rhubarb sells better and brings higher prices in the early spring months when there is less fresh produce on the market. The cool temperatures of spring are conducive to the development of the pink pigment so desirable in this crop. High temperatures develop a green petiole which is a less desirable product.

## Propagation

Seed stalks seem to arise at times of unfavorable growth, rather than at any particular period of development. The seed is used mainly by plant breeders since the plant is not self-pollinated, and plants raised from the seed would seldom be like the parent strain. Due to the form of the rhubarb flower, it is not self-pollinated. Even though upper flowers could fertilize lower ones, it appears that this isn't common because of the large variation of the seedling plants.

Division of the crown is the common and best method of propagation. Vegetative buds are found on the upper portion of the fleshy rhizome. The rhizomes can be cut into several divisions, just so there is a bud on each piece. The division of the plant is best done when it is 4 or 5 years old. Sometimes a furrow is plowed away from one side of the row and a section containing three or more buds is removed from each plant, leaving a section with buds to continue growth for several more years. A planting may be kept going this way for 15 or 20 years. In California, division is sometimes made in May after the crop is harvested, but most growers dig and divide during the dormant season in the fall or winter. Early spring planting is usually practiced.

## Soil

A deep, rich, well-drained sandy loam soil is most desirable for rhubarb production. A sandy southern exposure produces the earliest crop, with the production from the heavier soils coming on later. Light soils require more fertilizer and water than the heavier soils. A slight to medium acid soil is desirable for this crop. Due to the high water content of rhubarb, plenty of organic matter is needed in the soil to help hold the moisture for the growing plants.

## Fertilizer

Rhubarb is a heavy feeder and, in order to produce large stalks of high quality, a heavy application of fertilizer is necessary.

If manure is available, 25 to 35 tons per acre is desirable and should be incorporated in the soil before the planting is made. This should be followed by a mulch each fall. An application of superphosphate at the rate of 500 to 600 pounds in the spring will balance the plant food and should stimulate a good growth.

If no manure is available, 500 to 1,000 pounds of 10-16-8 or similar commercial fertilizer applied in the early spring is recommended. Apply 300 to 400 pounds of fertilizer with quickly available nitrogen, like ammonium sulfate or ammonium nitrate, in the late summer to stimulate fall growth and food storage in the roots. The spring growth comes mainly from food stored in the roots the previous season.

## Varieties

Several named varieties of rhubarb are in production, some of which apparently are selections from older strains but very similar to them. Linnaeus is

an older, earlier variety producing many bright colored small stalks of good quality. Strawberry is similar and possibly is the same variety. Victoria, another variety of long standing, comes on in midseason and is large, crisp, and of medium quality. It tends to be a little on the green type. Giant Crimson is similar to Victoria but with pink speckling on a green stem. Giant Cherry produces long, thick, red stalks comparatively free of fiber and considered to be less acid than some varieties. Canada Red is a mild variety, producing large red stalks. MacDonald is a good producer of very mild and highly colored stalks and is a good forcing variety. Mammoth Red produces many short, thick stalks of a deep red color but it is later than some other kinds. It is a good forcer. Valentine is a relatively new variety which produces medium yields of well-colored petioles.

## Planting

Both spring and late fall plantings are made, but where the winters tend to be severe, it is best to wait until the spring season. The soil should be well fertilized and worked deeply and thoroughly before planting. Spacing should be 4 to 6 feet each way, with the top bud 2 to 3 inches below the surface. Soil should be well worked in and packed around the root and crown so that no air pockets remain which might cause drying out of the young plants.

## Cultivation and irrigation

Cultivation should be shallow, with only enough depth to control weeds.

Irrigate rhubarb when necessary; especially after harvest when food is stored for the next crop. If the planting goes dormant after the harvest, little food is stored in the roots for the next year's production. Dormancy after food storage is considered good for the next crop.

## Harvesting

No stalks should be removed during the first year and only the large ones at any time. The stalks should be pulled, not cut. This is accomplished by grasping with the hand, index finger inside, and other fingers around the stalk down near the crown. A slight twist and side pull will loosen the stalk without breaking or injuring the plant.

If flower stalks appear, remove them at once so that all the strength will go into the roots. The appearance of seed stalks is a sign that the cropping

season is about over, or there is an adverse growing condition present. A normal cropping season will last about 8 weeks.

### **Forcing**

Rhubarb roots are often forced for a winter and very early spring crop. Plantings are made with this use in mind. The best forced crop comes from roots from which no stalks have previously been removed. These plants are dug in the fall at the time freezing temperatures start. The clumps are left outside to allow a few nights of moderate freezing, and then they should be held cold but above freezing for a few days of dormancy before starting the forcing operation. Forcing is done in a darkened place with the root clumps placed side by side and soil filled in between them. This soil should be kept moist and the temperature held around 58 to 62 degrees. Give some ventilation to prevent fungus growth which might easily start under the warm, humid condition. The leaf size is reduced while the petiole grows faster and with a more delicate pink color in a warm, dark room. The greatest production by weight comes from 4-year-old roots, but the 1-year-old roots produce the greatest profit per square foot of space used.

Walkways should be left about every 6 feet to allow room for the care and harvesting of the crop. Rhubarb stalks are very tender, and care must be exercised to prevent damage by breaking.

The crop is ready to harvest in 25 to 30 days or as soon as the stalks get 18 or more inches long. Pulling is done the same as for the outside crop. The stalks are brushed clean, trimmed, and made ready for market.

Yields will vary from 2 to 6 pounds per square foot of space occupied.

### **In the home garden**

It is advisable for home gardeners to maintain a few hills of rhubarb at the side or back of the garden area, so they may enjoy this fine vegetable crop each spring. It is one of the earliest vegetable crops to be harvested due to its hardiness, and also gives you very good returns for the space occupied.

Earlier outside production can be accomplished by covering hills with straw or strawy manure which is held in place by some type of framework.

If room for inside forcing is available, a few extra hills should be grown for this still earlier production and use.

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on gardening and  
farm crops.*