

gooseberries jostaberries

Gooseberry plants are small, thorny shrubs that produce oval, tear-drop, or round berries that vary in size from that of a pea to a small plum. Ripe fruit can be green, yellow, orange, or dark red. Most cultivated gooseberries are the size and texture of seedless grapes with prominent dried petals at the tip of the fruit. Gooseberry seeds are small and edible. Gooseberry fruit are usually sour and firm with a unique, pleasant flavor. The plants tend to be quite hardy and grow best in areas with cool summers.

Like currants, gooseberries belong to the genus *Ribes*. Although closely related, gooseberries have different plants and fruit than currants. Gooseberry canes have prominent thorns at each node, and gooseberry fruit are borne singly or in small clusters. Gooseberry fruit is three to four times larger than currant fruit, and many varieties can be eaten fresh. Gooseberries lack the intense resinous flavors of black currants. Gooseberry bushes are shorter than

currant bushes, with arching, rather than upright canes. In addition to the prominent thorns on the canes, some wild species even have small spines on the skin of the fruit. There are no commercial cultivars with spines on the fruit, but some cultivars have vestigial hairs.



Figure 26. 'Hinnomaki Red' gooseberry

Gooseberries have many similarities to currants, including being very hardy and adaptable to a wide variety of soils. They are also susceptible to the same diseases and pests including white pine blister rust, powdery mildew, and currant sawflies.

There are several species of gooseberries native to Europe, Asia, and North America. The large-fruited, European cultivars primarily belong to the species *R. uva-crispa* (crispy grape) which is listed in many sources as *R. grossularia*. The species native to eastern North America is *R. hirtellum*, and

tends to be more disease resistant than European species. Gooseberry cultivars suitable for Minnesota are primarily hybrids between *R. uva-crispa* and *R. hirtellum*. The Canadian cultivar, 'Jahn's Prairie', is a selection of *R. hirtellum*.

Jostaberries are a cross between black currants and gooseberries that were developed in Germany. Like black currants, jostaberry plants are tall and vigorous shrubs without thorns. The fruit of jostaberries has the large size of gooseberries and are borne in small clusters like currants.

HISTORY

Gooseberries were originally domesticated on the European continent and introduced to England in the 16th century. Gooseberries eventually became quite popular in England, where they thrived in the cool summers. The British developed many large-fruited gooseberry cultivars, and by the 19th century, gooseberries had become the quintessential British fruit. Early attempts to grow domesticated European gooseberry cultivars in North America largely failed, primarily because European cultivars were susceptible to powdery mildew and other diseases and therefore often died when grown in eastern North America.

In the late 19th century, scientists began to breed the American species *Ribes hirtellum* with the European *R. uva-crispa* and developed several cultivars that combined the disease resistance of wild American plants and large fruit quality of European cultivars.

Gooseberry production gradually spread in the U.S. until the early 1920s. Like currants, gooseberries are an alternate host to white pine blister rust, and transport of gooseberries between states was outlawed in the early 1920s. A small group of growers in western Oregon continued to produce gooseberries for processing throughout the 20th century.

After restrictions were loosened in the 1960s, gooseberry production remained stagnant due to poor demand. Gooseberry consumption declined in Europe as well because gooseberries could not compete with imported grapes. The gooseberry's reputation in the U.S. was further hurt because the only cultivar most Americans had ever eaten was the North Dakota cultivar 'Pixwell', which is very sour and develops an off flavor when it ripens.

USES AND HEALTH BENEFITS

Gooseberries can be eaten fresh off the plant or put into pies and pastries. Gooseberry jelly is easy to make, because the fruit contains a large amount of pectin and can jell with little or no added pectin. Pie filling from red gooseberries is similar to cranberries, but with a unique and pleasant flavor. Many professional cooks prefer green gooseberries for processing. There is little agreement among gooseberry growers about whether or not to remove

the prominent dried petals at the end of each berry prior to cooking. Some cooks automatically remove the dried tips, while others process the berries as is.

Gooseberries are sour. There are many varieties that have been selected for fresh eating, but people who don't like sour fruit will struggle to eat the sweetest gooseberry. Gooseberries are one of the rare fruits that can be picked green or very ripe. As a general

ripe, fruit destined for jam or jelly can be picked when green. Fruit for fresh eating should be left on the plant as long as possible. Many gooseberry varieties have a very long picking window of two to three weeks, and the berries continue to sweeten until they shrivel or rot.

Jostaberries can be eaten fresh, but many varieties appear to be too sour and strong for most people. Jostaberries can be used in all types of cooking for currants and gooseberries. Otherwise one of the primary uses for jostaberries is as a rootstock for gooseberries. Gooseberries grafted onto

jostaberries tend to be more vigorous and upright than gooseberries started by cuttings. There are five listed varieties of jostaberry, including two that were bred in Oregon and three from Germany. The most common cultivar is called, appropriately, 'Josta'.

Gooseberries will give the same health benefits of eating any other fresh fruit. Gooseberries contain Vitamin C and minerals just like currants, but at lower concentrations. Gooseberries are many times larger than currants, and the nutrient content is diluted. Green gooseberry cultivars lack the high antioxidant levels of black currants.

| Name | Fruit Color | Uses | Advantages | Problems |
|---------------|---------------|----------------|--|--|
| Pixwell | Green/pink | Cooking | Widely available | Poor fruit quality when ripe, difficult to harvest |
| Invicta | Green-gold | Fresh | Large size, productive | Fruit has small hairs, leaf spot susceptible |
| Hinnomaki | Red or yellow | Cooking | Productive, good color | Thorns interfere with harvest |
| Tixia | Red | Fresh, cooking | Attractive, semi-thornless, mildew resistant | Untested in MN |
| Jahns Prairie | Pink | Fresh, cooking | Disease resistant, few thorns | Untested in MN |
| Captivator | Red | Cooking, fresh | Large size, few thorns, mildew resistant | Untested in MN |
| Poorman | Pink | Cooking, fresh | Large size, disease resistant | Thorns |

PROPAGATION AND PLANTING

Growers should consider propagating their own gooseberry plants. Many gooseberry varieties are difficult to find, especially in quantities large enough for a commercial planting. Gooseberries tend to be more difficult to propagate than currants because they require more specialized techniques such as tip layering, mound layering (stoolbeds), and hardwood cuttings. Due to the wide genetic variability of gooseberries, some cultivars will root more easily than others. Fortunately, the American species *R. hirtellum* is easier to propagate than the European species, and most suitable cultivars for Minnesota are hybrids of *R. hirtellum*.

Tip layering is one of the surest ways to start plants. Branches are bent over to the ground in late summer, and a small area of the branch, about four inches

below the tip, is covered with soil. Over the next few months, roots form in the area of the branch covered with soil. The following spring, the branch can be cut below the soil and transplanted. Make sure that roots have formed, because some cultivars may need two growing seasons before they can be transplanted. Hardwood cuttings should be taken in the fall when there are still leaves on the canes. Cut canes into 9 inch lengths and remove the growing tip. Place the canes in potting soil or sand for the winter. The cuttings should then be stored in a cool, but not freezing area for the winter, which can be a challenge in Minnesota. According to some sources, jostaberries and some American varieties of gooseberry will, like currants, propagate from hardwood dormant cane cuttings placed directly into potting soil.

Enterprising growers in Europe have successfully grafted gooseberries onto vigorous rootstocks such as jostaberries or clove currants, which produce a more vigorous and upright plant. Vigorous plants can then be trained to a trellis. When canes are growing onto a wire, the fruit hangs below the canes, and away from the thorns. Gooseberries grow well on a cordon-type trellis, with two or three guide wires. A good guide for growing gooseberries on a trellis can be found in the University of Idaho publication "Growing Currants and Gooseberries in the Inland Northwest and Intermountain West."⁴¹

Gooseberries are tolerant of a wide variety of soil types and conditions, but will grow best in a rich,

sunny loam soil. Gooseberries should be planted three to five feet apart, depending on the vigor of the cultivar and the soil conditions. Gooseberries vary from two to five feet tall, prefer cool soil, and respond well to bark mulch. As with all perennial fruiting plants, gooseberries need to be fertilized every year or two in order to stay productive. Mature plants need about two ounces of actual nitrogen each year in order to maintain good cane growth and productivity. The fertilizer can be applied in the form of several pounds of manure each year, or with commercial fertilizers. Eight ounces of ammonium sulfate or calcium nitrate fertilizer per plant is enough to maintain vigor in a gooseberry planting.

EDIBLE LANDSCAPING

Most gooseberry varieties have little ornamental value, with white, thorny canes and inconspicuous flowers. Some varieties have good fall color, provided that the leaves are not killed by diseases first. Gooseberries have their greatest landscaping utility when planted on property borders where the thorny canes will discourage unwanted visitors.

Jostaberries are large and have a good upright growth habit which makes them an edible alternative to many *Viburnum* species. Jostaberries work well as a tall shrub in a lawn, and the leaves turn a pretty red each fall. Jostaberries appear to be more resistant to leaf diseases than gooseberries, which improves their ornamental value.

PRODUCTION PROBLEMS

Gooseberries have few insect and disease problems in most parts of Minnesota, but there are years when the plants will be defoliated by sawflies or leaf diseases. Gooseberries are especially susceptible to powdery mildew and leaf spot, which is the primary reason that large-fruited English cultivars have never been commonly planted in the U.S. Like currants, gooseberries are susceptible to white pine blister rust, which kills leaves and causes unappealing red lesions to form on the fruit.

The most common insect pest in gooseberries is the currant sawfly. Currant sawflies are the larvae of a fly that lays its eggs on the leaves and the larvae eat the

leaves. Sawfly larvae emerge in June and only have one generation per year. In many cases, sawflies will completely defoliate shrubs. Many insecticides will control sawflies, including organically acceptable Bt sprays. Jostaberries are quite susceptible to currant stem borer.

Spotted Wing Drosophila could be a problem in some gooseberry varieties. Gooseberries are known for being crisp. If the fruit does soften after ripening, it should be examined for small maggots. In the future, growers may need to harvest gooseberries early in order to avoid these flies.

⁴¹ Barney, Danny L. and Esmaeil Fallahi. *Growing Currants, Gooseberries & Jostaberries in the Inland Northwest and Intermountain West*. University of Idaho Extension, 2009. Web. 03 March 2017. <http://www.cals.uidaho.edu/edcomm/pdf/bul/bul0855.pdf>

One of the limiting factors with jostaberries is poor fruit set due to inadequate blossom formation or pollination. Poor fruit set occurs inconsistently in different parts of the country. Like many hybrids between distantly related species, jostaberry flowers do not pollinate easily, while some varieties don't produce sufficient numbers of flowers. Always plant

more than one jostaberry, and make sure there are other plants that belong to the genus *Ribes* nearby that could serve as pollinators. Jostaberries often "bleed" when picked. The stem pulls out of the fruit, letting the juice leak out. This limits their shelf life after harvest.

COMMERCIAL POTENTIAL IN MINNESOTA

Minnesota growers who want to profitably raise gooseberries can have good production, but still struggle with low markets and poor picking efficiency. The market for gooseberries is still being developed and few potential customers even know what they are. Some of the people familiar with the fruit have eaten poor quality fruit and are no longer interested as a result. When consumers taste well ripened berries or good quality products made from gooseberries, they are more likely to buy this little-known crop.

Gooseberries can be painful to pick due to the sharp thorns. 'Pixwell' was selected so that fruit clusters hang below the thorns, but several growers have reported that 'Pixwell' is as difficult to pick as other varieties. 'Invicta' and 'Hinnomaki' have thorns that are close to the fruit. The recent selections, 'Jahn's Prairie' and 'Tixia', show promise of having fewer thorns. The best way to facilitate picking is to train grafted plants onto a trellis, so that the fruit hangs below the thorns. A few Minnesota growers have minimized blood loss during picking by using gloves made from synthetic material, and are reporting harvest rates that are commercially viable.

There are probably hundreds of gooseberry varieties, but only a handful have been tested in Minnesota. Those interested in growing gooseberries should try several varieties to see what grows best at their site. With its diverse soils and sites, some areas of Minnesota will have a greater problem with white pine blister rust, while other areas may have a problem with mildew or leaf spot. Varieties that do best in the clay soils and hot summers of southwest

Minnesota will probably not be best for northeast Minnesota. When testing a cultivar for a specific site, always wait until the plant has been producing fruit for at least two years before deciding if the cultivar is suitable.

Note from Thaddeus:

I have been growing the cultivar 'Hinnomaki Red' for 14 years, and I regularly prepare gooseberry pastries for potlucks and other meetings. The fruit has a dark red color similar to cranberries, and they are almost as sour as cranberries, but the flavor is unique. People who like sour fruit generally love gooseberry desserts that are properly prepared. I once did a taste test of fresh berries using fresh 'Hinnomaki Red' and 'Invicta'. Most people preferred the 'Hinnomaki Red', even though 'Invicta' was sweeter and was selected for the fresh market. One small grower with an eighth of an acre of gooseberries has 'Pixwell', 'Hinnomaki', and 'Jahn's Prairie', and has been able to sell all the fruit to restaurants.