

Grow with USask

There are three main species of plum trees that can be grown in our prairie climate. Two of these species, *P. nigra* (Canada plum) and *P. americana* (American plum), originated in North America and while their size and fruit quality is less desirable than most commercial plums, they have been used in breeding for their outstanding cold hardiness. Both of these plums have been termed "wild plums" and grow up into tough, drought resistant, thorny trees with astringent yellow-orange, oval shaped fruit. The other plum species used in prairie plum breeding is, *P. salicina* or the Japanese plum. Japanese plums originated in China and were first introduced to North America in the late 1800s. Japanese plum fruit is higher quality than wild plums and generally red or yellow in colour.



The thorns/spines on the plum tree are large enough to look like branches.

Growth Habit

It is recommended to train plum trees with a central leader system. This will give your plum tree sturdier branches that are less likely to break with fruit load. You can also train your tree to a single trunk vase shape with approximately six well spaced main branches. Mature plums trees vary in height from 3 to 6m.

Pruning

Pruning each year will help control the size of your tree and make it easier to harvest the fruit. Prune off suckers coming from the rootstock and vegetative water sprouts growing straight up from main branches.

Pollination

Plums are self-incompatible with very specific pollination requirements. Flower buds are formed in late summer on shoots and fruiting spurs that are at least two years old. They open first thing in the spring and can withstand temperatures no colder than -2 °C. Bees are responsible for pollinating flowers but cool spring conditions sometimes hinder their ability to carry out pollination. The best option is to plant two compatible plums within 30 m of each other. Not only is it important



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to have plums with compatible pollen, you also want to be sure that the flowers on both plums will open around the same time. Hybrid plums will not cross pollinate with other hybrids or *P. salicina*. This means that they require pollen from a wild plum (*P. nigra* or *P. americana*) to set fruit. The hybrid plum, however, in return will not pollinate the wild plum, meaning that another wild plum is needed if one wants to get wild plum fruit. For *P. salicina* another variety of *P. salicina* is needed for pollination. Wild plums will also pollinate *P. salicina* but in most cases one would rather grow a second *P. salicina* as the fruit is far superior.

Harvesting

Plums should be harvested for fresh eating when the skin has a waxy bloom and they are slightly soft to the touch. Lift the fruit gently upward and it will separate from the tree. If processing plums in jam or jellies, harvest when they are still slightly firm.

Cultivars

In Saskatchewan there are several Japanese-wild plum hybrids available that are crosses of either *P. nigra* or *P. americana* and *P. salicina*. These hybrid varieties have the exceptional flavour, sweetness and size of Japanese plums with the cold hardiness of a wild plum. Examples of some superior hybrid plum cultivars are as follows:

'Patterson Pride' is a vivid red skinned plum (4-5 cm diameter) with golden flesh and a waxy bloom on the outside. This plum was developed by Dr. Cecil Patterson at the University of Saskatchewan back in 1960. Its growth habit is semi-dwarf with weeping branches and the fruit matures in September which is later than most plums. It is a great fresh eating freestone plum with sweet, firm flesh and skin that is not sour. Its top flavour sets it apart from the other hybrid varieties.

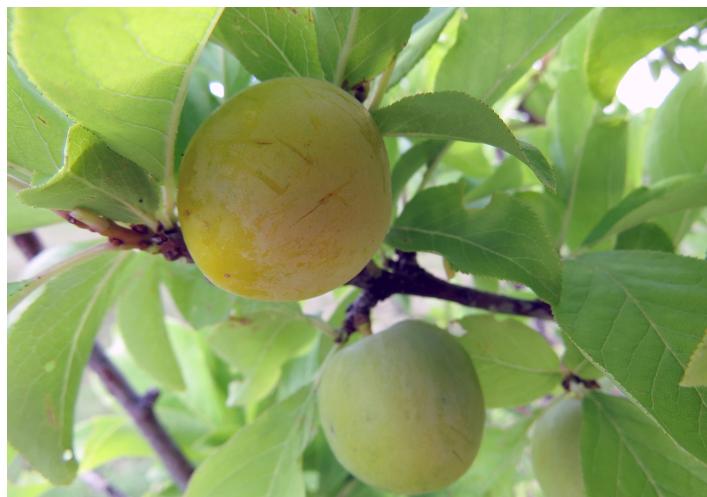
'Pembina' is a dark red plum with a bluish bloom (5 cm diameter). It is semi-freestone and has sweet orange flesh and moderately sour skin. The tree is upright and vase-shaped with fruit ripening in late August to early September. This plum was bred by Dr. Neils Hansen in Brookings, South Dakota.

'Superb/Perfection' is an early, very hardy, slightly elongated red skinned plum (4 x 4.5 cm) with sweet, juicy, yellow flesh. It is a clingstone type with moderately sour skin. The trees growth habit is upright and spreading. Fruit matures in early August. Another cultivar bred by Dr. Cecil Patterson at the U of SK.

'Supreme' is a yellow plum with a red blush (5 cm diameter). It is excellent for fresh eating as the flesh is yellow, sweet and juicy and the skin is not astringent. It is a medium sized upright tree with fruit maturing in late August. Dr. Cecil Patterson, University of Saskatchewan, 1960.

Hardy Japanese plum (*P. salicina*) cultivars commonly grown on the prairies include:

'Brookgold' released out of Brooks, Alberta in 1979 is a small, vibrant gold skinned plum with an orange blush (2.5-3 cm diameter). The fruit is less firm than other varieties but the skin is not sour and the flesh is juicy, yellow and extremely sweet. It is a freestone type with an upright growth habit and fruit maturing in mid August. This variety is known for being super dependable and productive.



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'Fofonoff/Homesteader' is a lime green plum with a red blush and thin skin (4 cm diameter). It is freestone with light green sweet flesh. Fruit matures mid-August and the tree has a rounded growth habit with wide-angled branches. Bred by Wasal Fofonoff in Buchanan, SK in 1973.

'Ivanovka' has yellow skin overlaid by deep red and a bluish bloom (3.5-4 cm diameter). It is semi-freestone and has yellow to pink aromatic, sweet flesh. The tree is broadly upright and the fruit matures in early September. Released in 1939 by the Morden Research Station in Manitoba.

'Ptitsin series' plums were also released by the Morden Research Station in 1939. This series includes Ptitsin #3, 5, 7, 9, 10 and 12. The fruit varies in size from 2.5 to 3 cm and the skin is yellow-green to red in colour with yellow-green to yellow flesh. The trees have wide-angled branches and are all considered early varieties as the fruit matures in August.

P. nigra and *P. americana* are often sold under the label of "pollinator plums". Some available wild plums for the prairies include:

'Bounty' has oval, somewhat astringent, dark red fruit with a bluish bloom (3.5 cm diameter). The clingstone fruit matures in mid-August, has orange-yellow flesh and is good for jams and jellies but not for fresh eating. The tree is upright and spreading. 'Bounty' is an early bloomer so it is a good pollinizer for 'Perfection', 'Brookgold' and the 'Ptitsin series'. Bred at the Morden Research Station in 1936.

'Norther' has oval red skinned fruit (3.5 cm diameter) with sweet, yellow flesh. It ripens in early August and the tree is moderately spreading. It is a late bloomer, so it is a good pollinizer for 'Pembina'. Bred by the Morden Research Station and released in 1943.

Pests

Two significant plum diseases are bacterial canker (*Pseudomonas syringae* or *P. morsprunorum*) and plum pocket (*Taphrina communis*).

Bacterial canker is also common in cherries and other *Prunus* sp. and affects the plants leaves, branches and flowers. Canker is identified as an oozing, amber coloured sap usually at the base of the trees trunk. It starts off on the bark and causes the trees to exude a gummy sap that later hardens and can become inhabited by black fungus. The branches located above the cankers fail to leaf out and then die. Canker is more widespread during cool wet years and can also cause water soaked lesions on flowers and leaves. Insects can spread the disease by feeding on the oozing tree sap. Preventative pruning can be done to avoid the spread of canker in plums. Poor branch angles near the base of a plum can cause water to collect, freeze, and then push the branches apart. This leaves the area susceptible to infection. To remove canker prune branches below the canker area.



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Plum pocket affects the shoots, leaves, twigs and fruit of both plums and cherry plums. It is a fungal disease that is worse under cool wet conditions. Fruit develops small, white blisters or "pockets" that become large and hollow. Eventually fruit will become dark and no pit will form. Shoots and twigs can become warped and swollen and leaves begin to curl. To treat apply lime sulphur spray in either the early spring or fall, when trees are dormant and temperatures are below freezing. Keep in mind that if leaves are starting to open the spray may burn the foliage.