

GRAPES...

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Wild grapes have been growing in the fringe forest along North Dakota streams for hundreds of years. These wild grapes can be made into delicious juice and jelly.

Our native grapes vary. Many wild plants do not set fruit because they are imperfect flowered or male vines. This explains why seedling plants transplanted from the wild often fail to produce fruit. Cuttings taken from a fruiting plant are a much surer way to get producing plants started.

CULTIVATED VARIETIES

Beta and Alpha are the two best known, hardy cultivated grape varieties for North Dakota. They are much higher in quality than the wild grapes and are completely hardy even when left on the trellis during the winter months. Beta and Alpha are very similar. The fruit is bluish black. The size of the cluster and the individual berry is small. Both varieties make good jelly and juice but are too sour for eating fresh. Beta is merely a selection of our native wild grape.

Blue Jay. A bluish black grape with medium sized clusters and good sized berries. It is also very good for juice and jelly. When fully ripe it becomes mild and may be eaten fresh. It should be planted with another variety to insure fruit set. Needs some winter protection if grown in exposed sites.

Bluebell. A bluish black grape resembling Concord. It has a sweet flavor and may be eaten fresh. It is very good for juice and jelly. Needs winter protection if grown in exposed sites.

Red Amber. A grape of an amber red color in medium size clusters and berries. It is the sweetest of our hardy grapes and is very good for eating fresh and for cooking. Give the vines winter protection.

Moonbeam. A green variety of mild flavor and good quality. The berries tend to be large but the clusters are medium size.

Foliage is dark green on the upper surface and has a silvery underside. This variety needs winter protection.

Concord. This is the well known commercial blue black grape. It is not hardy enough and it ripens its fruit too late for North Dakota conditions.

Fredonia. Sweet black fruits of good size. This variety is about three weeks earlier than Concord. May be grown in the more protected sites. The vines will need to be covered for winter protection.

North Dakota No. 11. This is a green grape of medium size berries and clusters. It is hardy and productive. It is not sweet enough to be eaten fresh but it is good for juice and jelly. The juice is a pale amber color and the jelly is also light colored. The flavor of the jelly resembles crabapple.

PROPAGATION

Grapes are raised from hardwood cuttings. The cuttings are pieces of one year old wood with two or three buds. They are taken in the late fall while the vine is dormant. The cuttings are stored by covering with moist sand or peat and kept at a temperature of 35 to 40 degrees F. These cuttings will develop a callus on the lower end. In the spring the cuttings are planted out, callus end down, and they will develop into new plants.

Plants sold by nurserymen are one or two year old plants. Spring planting is desirable. Prune back at planting time to only two or three buds. The spacing usually used is 8 feet apart in the row and the rows 8 to 10 feet apart.

CULTURE AND PRUNING

Plant the grape arbor in a well protected site. Clean cultivation is recommended for the arbor. A trellis with the posts set 8 to 12 feet apart and with two or three wires is the most commonly

used. Have the lowest wire 18 to 24 inches above the ground and the other wires about 15 inches apart. In the first season, the vines should grow enough to reach the lower wire. The second season cut the vine just above the lower wire and tie to the wire with soft twine.



Figure 1. A thrifty young grape vine in need of pruning.

Pruning grapes is very important. Grapes left unpruned yield poorly with small sized berries and become a tangle of vines. Beginners seldom prune grape vines severely enough. Grapes are produced on the current season growth, which in turn comes from wood of the previous season's growth.

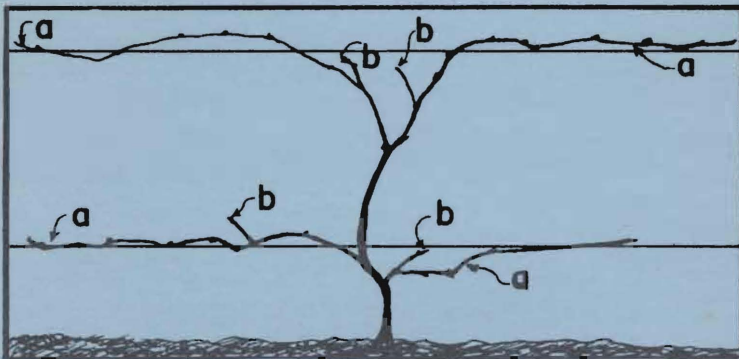


Figure 2. The vine in Figure 1, after having been pruned to four canes. (A) Fruiting canes, (B) Short spurs to provide renewal canes the following season.

The most common method of pruning grapes is the "Four Cane Kniffin" system (see fig. 2). Each of the four canes left should have from 10 to 15 buds. This will make a total of 40 to 60 buds on a plant with four canes. It is possible for each bud to produce a sprout that will bear up to three bunches of grapes.

A thorough job of pruning removes a great deal of wood. The hardy varieties left on the trellis over winter usually are pruned in the early spring before any growth takes place. Grapes may bleed profusely when pruned in early spring. This bleeding looks serious but apparently isn't harmful to the plant.

Fall pruning is necessary if the vines are to be given winter protection. The winter protection involves the laying of the canes on the ground and covering with 6 to 12 inches of soil. Vines covered in this manner are taken up and tied on the trellis as soon as the ground thaws in the spring.

Birds are fond of ripe grapes. Use ordinary paper bags to protect the clusters. Pull the bag up over the bunch and fasten around the stem with wrapping cord, wire or pin.

INSECTS

Insects have not been a serious problem of grapes in North Dakota although they are occasionally found.

Grape leaf hoppers probably are the most common insect pest. These tiny pale colored insects will be found sucking the juice from the underside of the leaves. This injury results in the formation of very small whitish spots on the leaves which later turn brown and dry up. The recommended control is DDT.

Send samples of insect damage to the Department of Entomology, North Dakota Agricultural College, Fargo, for identification and control recommendations.

DISEASES

Diseases have not been a serious problem of grapes in North Dakota. Mildew probably is the most common disease. Mildew usually occurs in prolonged seasons of moist weather. It appears as white or gray-tan areas on the leaf. These areas may have a powdery appearance. The recommended control is Bordeaux 3-4-50.

Send samples to the Department of Plant Pathology, North Dakota Agricultural College, Fargo, for identification and control recommendations.