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IDAHO Agricultural
Extension Service



IDAHO
Fruit
VARIETIES

ANTON S. HORN

LEIF VERNER

DELANCE F. FRANKLIN



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Recommended Varieties

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VARIETIES listed in **bold-face** type in the tables are self-unfruitful, and must be planted near another variety of the same kind of fruit in order to produce. They require cross-pollination. Varieties not in bold-face type are generally self-fruitful, but many of them will produce larger crops if another variety, blooming at the same time, is near them.

An asterisk (*) indicates that the variety is suitable for commercial production in the zone for which it is so marked.

Fruit Varieties For Idaho

ANTON S. HORN, LEIF VERNER, AND DELANCE F. FRANKLIN*

IN fruit growing, a wise choice of varieties is as important as good cultural practices. A variety poorly adapted to your locality may be killed by low winter temperature. The yield or quality might be unsatisfactory or the growing season may not be long enough or warm enough to ripen the fruit. A well-chosen variety will live long, will yield well, and will ripen its fruit to prime quality under conditions where it is grown.

Hundreds of different varieties of fruit can be grown successfully in many parts of Idaho. It is impossible to include more than a small number of them in a bulletin such as this. It has been necessary to omit many good varieties, but this does not mean that they should not be tried in Idaho. Those included here are varieties known from past experience to give good results, or varieties that reasonably can be expected to do well because of experience with them elsewhere under conditions similar to those in parts of Idaho.

Climatic Zones of Idaho

Idaho is a big state. It extends a distance of 500 miles from north to south. It has a rugged topography, with altitudes ranging from 700 to over 12,000 feet. These conditions produce highly varied climates. Some areas have frost-free growing seasons of 175 to 200 days; others have freezing temperatures every month of the year. In some parts of the state the climate changes abruptly within very short distances. Differences between neighboring towns at different altitudes often are greater than differences between towns at similar altitudes but 100 miles or more apart.

It is difficult under these conditions to subdivide the state into clearly defined climatic zones. Yet, some sort of recognition of climatic differences is necessary in making variety recommendations. For this purpose, localities in the state where suitable weather records are available have been classified into several groups according to similarities in climate. For each sort of climate represented a zone number has been assigned; but no zone can be traced by continuous lines as is sometimes done for states with less abrupt changes in zones. Instead, each zone includes many similar areas, some of which are connected, some isolated.

* Extension Horticulturist, Agricultural Extension Service; Horticulturist, Agricultural Experiment Station; and Superintendent, Parma Branch Station, respectively.

In Table 1, comparable but isolated locations are grouped together by zones. Most parts of Idaho where fruit can be grown successfully are close to one or more of the Weather Bureau stations by whose records the zones have, in large part, been determined. If you are at some distance from a city or town listed, your zone can be determined by comparing your local weather conditions with conditions at the listed station nearest you or the station where you know conditions to be most like yours. If your local weather is more severe than at the station you are using for comparison (that is, if winters are considerably colder and the growing season shorter), your area probably should be considered to be in the *next higher zone*. If your weather is considerably warmer than the station you are comparing it with, consider yourself in the *next lower zone*.

The range of climate is rather wide even within the zones. Fruit varieties listed, for example, for Zone 1 only may grow in the warmer parts of Zone 2. Also, varieties listed in one zone may grow on especially favorable sites in higher zones, as, for instances, near lakes and rivers, which tend to reduce the danger of frost. In all zones you should grow fruit on sites having good air drainage where frost is least likely to occur.

TABLE 1—Arrangements of Idaho cities and towns into zones based on their adaptability to fruit growing.¹

Zone 1 —	Zone 2 —	Zone 3 —	Zone 4 —	Zone 5 —
Boise	Bliss	Aberdeen	Arco	Cascade
Caldwell	Bonnars Ferry	American Falls	Ashton	Donnelly
Eagle	Buhl	Blackfoot	Bancroft	Driggs
Emmett	Burley	Cottonwood	Challis	Irwin
Fruitland	Cambridge	Firth	Dubois	McCall
Garden City	Council	Grangeville	Fairfield	New Meadows
Glenns Ferry	Coeur d'Alene	Idaho Falls	Grace	Paris
Grandview	Gooding	Iona	Georgetown	Soda Springs
Hagerman	Hope	Kellogg	Hailey	Tetonia
Hammett	Jerome	Malad	Hill City	Victor
Homedale	Kamiah	Moscow	Idaho City	
Julietta	Kimberly	Nez Perce	Mackay	
Lewiston	Kooskia	Preston	Montpelier	
Marsing	Mesa	Pocatello	Mullan	
Meridian	Oakley	Rexburg	Paris	
Mountain Home	Rupert	Ririe	Soldier	
Nampa	Shoshone	Rockland	Wallace	
Notus	Twin Falls	Richfield		
Orofino	Wendell	Rigby		
Parma		St. Anthony		
Payette		St. Maries		
Riggins		Salmon		
Star		Sandpoint		
Weiser		Shelley		
Wilder		Sugar City		
		Teton		

¹ Assistance of U.S. Weather Bureau personnel in Boise is gratefully acknowledged.

How to Choose Varieties

Your choice of a variety should depend not only upon where you will grow it but the use you will make of it. The best varieties for commercial fruit growing are not always best for farm orchards or back-yard gardens. The large-scale commercial grower needs a relatively few varieties that produce heavily every year. The fruit must handle and ship well and have an attractive appearance. If you are planning on selling your fruit for commercial canning, freezing, or shipping it is suggested that, before you plant, you talk to the fieldman for the processor or shipper who will buy your fruit. He may only accept certain varieties and will pay more for certain ones than others. For home use, more varieties may be chosen. Heavy yields are less important. The emphasis should be on high quality, value for canning and freezing, and adaptability to local conditions. For limited commercial production for *local market* a larger number of varieties should be grown than for large-scale production for distant markets. There can be less attention to the ability of the variety to stand handling and shipping, but more attention should be given to high dessert quality and suitability for canning and freezing.

Only by constantly testing new varieties can we hope to improve on the kinds now commonly grown. If you are a back-yard gardener, new varieties will add much interest to fruit growing. Do not hesitate to plant any new variety that appears promising for your area, but *keep the planting small* until you are sure the new variety is better than others you have been growing. If you are a commercial fruit grower be even more cautious. The mistake of planting a considerable acreage will prove costly if the new variety turns out to be inferior, or if it proves difficult to sell because it is unknown. Grow only a few trees or plants of the new variety until you are sure of its worth.

The greatest care is necessary in choosing varieties for the colder parts of the state (Zones 4 and 5). Here some attention must be given to frost hardiness of blossom buds and time of bloom. In areas subject to frost in June, for example, it is better to plant ever-bearing strawberries rather than single-crop varieties. Some fruits can be grown successfully for home use considerably beyond their normal range by planting against the wall on the south side of a building. This often provides enough extra warmth to ripen a crop that would fail to ripen otherwise. This method is especially useful with grapes.

Finally, in choosing varieties, remember that local experience often is a useful guide. Your extension agricultural agent or local nurseryman can usually help you.

Dwarf Trees

Some of the tree-fruit varieties listed in this bulletin may be purchased as dwarf or semi-dwarf trees. Such trees are produced by the nurseryman through grafting the desired variety onto special rootstocks that result in various degrees of dwarfing of the tree. The dwarf trees come into bearing earlier than standard-size trees, but there is little difference in the size, color, or flavor of the fruit they bear. Dwarf trees are often preferred for back-yard gardens because they occupy relatively little space, often produce as much fruit of one variety as a family desires, and they are much easier to spray for disease and insect control than are the larger trees. Recently there has been much interest in the possible advantages of dwarf or semi-dwarf trees for commercial planting. Their use for such a purpose cannot yet be recommended because they have not been tested sufficiently in large plantings in this country. Dwarf trees are considerably more expensive than others because of the greater cost of producing them, and because of the greater number required per acre.

Apple and pear trees make the most satisfactory dwarfs, and, because of their size, they are the kinds of fruit trees most in need of dwarfing for back-yard gardens. Dwarf trees of the stone fruits are available, but are of relatively less advantage because standard trees of most of the stone fruits do not grow too large for back-yard gardens. Peach, plum, and sour cherry trees are easily kept small enough by proper pruning.

Pollination

Before a fruit blossom will set fruit it is necessary that it be pollinized; that is, that pollen be transferred from the stamens, or male organs of the blossom, to the stigma, or female organ. Very often the pollen of a variety proves ineffective in producing fruit when it is applied to the stigma of a blossom of the same variety. Such a condition is referred to as "self-unfruitful". Fruit can be obtained from such a variety only when the blossoms are provided with pollen from a different variety. When this is done we have "cross-pollination". Even cross-pollination does not always result in the production of fruit, because sometimes the pollen of one variety is not effective even when applied to the stigmas of an entirely different variety. This is a condition known as "inter-unfruitful" or "cross-unfruitful".

Because of these requirements for fruit setting it is very important in choosing varieties that you know their pollination needs. All sweet cherries are self-unfruitful; therefore, at least two varieties must always be planted together. Some sweet cherries, such as Bing and Lambert, are also inter-unfruitful. A third variety,

for instance Van, should be planted with these two to assure a set of fruit. Similar situations exist in apples, pears, and plums, except that some varieties of these are fully self-fruitful.

Most peaches are completely self-fruitful. A leading commercial variety, J. H. Hale, is one of the few exceptions. It requires cross-pollination. Most apricots, sour cherries and small fruits are also self-fruitful. However, many self-fruitful varieties will set heavier crops with cross-fertilization.

Adequate cross pollination can be obtained when every third tree in every third row is a pollinizer.

Apples

The commercial grower should plant those varieties listed for his zone and marked with an asterisk. In the case of the red apples, he should insist on the bud sports that color early. For example, *Jonared* and *Blackjon* are among the red sports of *Jonathan* that can be used.

A bud sport is a strain of a variety that differs from the original in one or a few characters only, as, for instance, in having more red color. A partial list of red sports is included for the use of the commercial grower. The home orchardist can use either the standard variety or the red sport, whichever he prefers. In the case of red sports, the color is more intense and they generally color earlier than the standard variety. The time of maturity is generally the same as that of the standard variety.

Yellow Transparent is probably the earliest *good* apple. It is a pale greenish white apple used almost exclusively for cooking. *Lodi* ripens a week to ten days after *Yellow Transparent* and resembles that variety. *Duchess* is a red apple that ripens three weeks after *Yellow Transparent*.

Wealthy is a red apple that ripens in late summer in Zones 1 and 2 and in fall in the other zones. It is juicy and tart. It may be used for cooking or dessert.

McIntosh is the leading variety grown in the East. It is used as both a dessert and a cooking apple. Zone 1 is a little warm for this variety. *Cortland* is similar to *McIntosh* but larger and less inclined to drop before harvest.

Jonathan is a tart apple that ripens early in the fall. It is a popular cooking and dessert apple.

Delicious is a favorite dessert apple with many people. It is the most popular commercial variety. The red sports of this variety are grown commercially in response to the consumer demand for high color, therefore, it is generally unprofitable to grow the standard *Delicious*.

Idared combines the qualities of a fine dessert apple with those of an excellent cooking variety. It has an exceptionally long storage life. It is a University of Idaho introduction that should be grown only for trial.

Golden Delicious is perhaps the finest yellow apple grown. It comes into bearing early and is a superior eating and cooking apple. *Grimes Golden*, which is similar to *Golden Delicious*, is no longer planted commercially in the West, but is desirable in the home garden.

Rome Beauty is one of our best baking apples. It is a red variety of mediocre dessert quality but a popular commercial variety for baking. It blooms late enough to sometimes escape damage from frost that injures other varieties. The orchardist likes it because it is a dependable cropper and yields heavily. Again, the commercial grower must plant the red strains of this variety if he is to make money.

Stayman Winesap and *Winesap* are late apples. They are good to eat out of hand, satisfactory for cooking, and keep well.

Even though crab apples are not grown commercially in Idaho, there are many trees in farm orchards, especially at the higher altitudes. Some of the suitable varieties are *Dolgo*, *Whitney*, *Martina*, *Hyslop*, and *Transcendent*. All of these may be grown in all five zones.

APPLES	Zone 1	Zone 2	Zone 3	Zone 4	Zone 5
Yellow Transparent	X*	X	X	X	X
Lodi	X	X	X	X	X
Duchess	X	X	X	X	X
Wealthy	X	X	X	X	X
Winter Banana	X	X	X	X	On warmer sites
Cortland	X	X	X	X	
McIntosh	X	X	X*	X	X
Jonathan	X	X	X	X	
Jonard	X*	X*	X	X	
Blackjon	X*	X*	X	X	
Delicious	X	X	X	X	
Clark Rich Delicious	X*	X*	X	X	
Hi-Red	X*	X*	X	X	
Imperial Double Red	X*	X*	X	X	
Mor Red	X*	X*	X	X	
Red King	X*	X*	X	X	
Redspur (Spur type)	X*	X*	X	X	
Richard	X*	X*	X	X	
Royal Red	X*	X*	X	X	
Ryan Red Delicious	X*	X*	X	X	
Shake Spur (Spur type)	X*	X*	X	X	
Shotwell	X*	X*	X	X	
Starking	X*	X*	X	X	
Starkrimson (Spur type)	X*	X*	X	X	
Topred	X*	X*	X	X	
Wellspur (Spur type)	X*	X*	X	X	
Golden Delicious	X*	X*	X	X	
Idared	X	X	X	X	
Grimes Golden	X	X	X	X	
Rome Beauty	X	X	X	X	
Seeando Red Rome No. 262	X*	X*	X	X	
Nero Double-Red	X*	X*	X	X	
Stark Double-Red	X*	X*	X	X	
Barkley Red Rome	X*	X*	X	X	
Stayman Winesap	X	X	X	X	
Staymared	X*	X	X	X	
Winesap	X*	X	X	X	
Seeando Winesap	X*	X	X	X	

(Spur-type Delicious are recently - discovered bud sports that have extensive development of fruit spurs and less vegetative growth than other trees of this variety. They produce smaller trees than other strains of Delicious and can be planted closer together.)

* Commercial production

Many other red sports of Delicious could be listed. This partial list is not intended to discriminate against those not listed. The commercial grower should study the new red sports carefully as to earlier red color, intensity of the color, time of ripening, and whether it is a spur type or conventional type of tree. Since the red sports are being discovered at a rapid rate, the grower must constantly be evaluating them.

Jonathan, Golden Delicious, and Wealthy are good pollinizers for Delicious and its red sports. Yellow Transparent, Duchess, and Winter Banana are early bloomers and good pollinizers for McIntosh. Winesap and Stayman Winesap are poor pollen producers and Delicious will pollinate them. Idared will set satisfactory crops if planted near Delicious or Jonathan trees.

Pears

The leading commercial variety in the West is *Bartlett*. While the Bartlett is generally considered to be partially self-fruitful and will set satisfactory commercial crops most years, in some years yield will be increased by pollinizers. In Idaho, the commercial grower plants most of his acreage to Bartletts with *Anjou* and *Bosc* as pollinators. *Clapp's Favorite* and *Flemish Beauty* ripen before Bartlett. These varieties are especially desirable in the cooler, shorter-season zones. *Seckel* is a high quality pear, but the size is small. It is not a good pollinizer for Bartlett. *Winter Nelis* is a small pear requiring a long season to grow.

PEARS	Zone 1	Zone 2	Zone 3	Zone 4	Zone 5
Clapp's Favorite	X	X	X	X	X
Flemish Beauty	X	X	X	X	
Bartlett	X*	X*	X		
Max Red Bartlett	X	X	X		
Hardy	X	X			
Bosc	X*	X			
Anjou	X*	X			
Seckel	X	X			
Winter Nelis	X	X			

* Commercial production

Quince

This fruit is useful in making preserves. The *Orange* variety is good. *Pineapple* is a quince with a pineapple-like flavor.

QUINCE	Zone 1	Zone 2	Zone 3	Zone 4	Zone 5
Orange	X	X	X		
Pineapple	X	X	X		

Apricots

The apricot is one of the earliest fruits to bloom in the spring and, therefore, its blossoms often are killed by frost, or freezes. It should be grown commercially only on frost-free sites in Zone 1.

The *Riland* is an apricot of high quality that yields well and is satisfactory for commercial production. *Phelps* is of good quality but does not yield well. *Wenatchee Moorpark*, also called *Wenatchee* is widely grown commercially but is a poor variety for canning or freezing. *Perfection* bears a large fruit, but the stone is also large. *Chinese*, *Blenheim*, *Royal* and *Tilton* are also good varieties. *Tilton* is suitable for processing but small. *Blenril* and *Earliril* are new apricots worthy of trial. *Earliril* looks like *Riland* and ripens a week earlier than *Riland* and two weeks earlier than *Wenatchee Moorpark*. It needs a pollinizer. *Blenril* is self-fertile and an excellent pollinizer for *Earliril*.

APRICOTS	Zone 1	Zone 2	Zone 3	Zone 4	Zone 5
<i>Riland</i>	X*	X			
<i>Phelps</i>	X	X			
<i>Perfection</i>	X	X			
<i>Wenatchee Moorpark</i>	X*	X			
<i>Chinese</i>	X	X			
<i>Blenheim</i>	X	X			
<i>Royal</i>	X	X			
<i>Tilton</i>	X*	X			
<i>Blenril</i>	X	X			
<i>Earliril</i>	X	X			
<i>Scout</i>			X		
<i>Morden 601</i>			X		

* Commercial production

Riland, *Perfection*, and *Earliril* need a pollinizer and any of those listed above should be satisfactory for this purpose.

Peaches

The commercial grower will generally plant the bulk of his acreage to *J. H. Hale*, because that is his most profitable variety. It is a large, round peach of excellent quality. It is one of the few leading peach varieties requiring a pollinizer. The *Early Elberta* is next in popularity at the present time, but could be replaced by *Redskin* or *Gold Medal*. *Gold Medal* is one of the finest canning peaches. One of the earliest good peaches is *Dixired*. This is followed by *Redhaven* and *July Elberta*. *Rio Oso Gem* is one of the best late peaches.

Earlihale is an early ripening variety producing a *J. H. Hale*-type peach, well suited to shipping. It ripens with *Halehaven* which

is ripe two weeks before J. H. Hale. It is pollen-sterile so needs a pollinizer nearby. This yellow-fleshed freestone peach is a new variety introduced by the United States Department of Agriculture in 1958 and should be planted for trial only.

The above are all yellow-fleshed peaches. White peaches do not sell well but many fruit growers and home gardeners want a few for their own use. *White Hale* is one with both good flavor and size. *Champion* is an old standby. *Raritan Rose* and *Wildrose* are worthy of trial.

PEACHES	Days Ripe Before or After Elberta	Zone 1	Zone 2	Zone 3	Zone 4	Zone 5
Dixired	51 days before	X	X			
Dixiegem	35 days before	X	X			
Redhaven	35 days before	X*	X*			
Wild Rose	33 days before	X	X			
Ranger	33 days before	X	X			
Raritan Rose	28 days before	X	X			
Triogem	26 days before	X	X			
Golden Jubilee	24 days before	X*	X*			
July Elberta	21 days before	X*	X*			
Redglobe	21 days before	X	X			
Earlihale	17 days before	X	X			
Halehaven	17 days before	X*	X*			
Sunhigh	16 days before	X*	X*			
Sullivan Early Elberta	10 days before	X	X			
Champion	6 days before	X	X			
Early Elberta (Gleason Strain)	5 days before	X*	X*			
J. H. Hale	3 days before	X*	X*			
Redskin	1 day before	X	X			
Gold Medal	1 day before	X*	X*			
Elberta	0	X*	X*			
Rio Oso Gem	4 days after	X*				
White Hale	4 days after	X	X			

Peach buds are killed when temperatures reach 13° below zero. In zones 3 to 5 this occurs too many years to profitably raise peaches commercially or to depend on them in the home orchard.

* Peaches most likely to make you money. Your final choice depends on your market.

Earlihale and J. H. Hale are self-unfruitful. Early Elberta, Elberta, and nearly any self-fruitful peach variety will pollinate them.

Nectarines

This fruit is a fuzzless peach. *Quetta* is the variety most generally grown in back yards and in the older orchards in Idaho. *LeGrand* is the best commercial variety. *Freedom* is another good nectarine for commercial production. Nectarines are suggested commercially only for the warmer areas of Zone 1.

NECTARINES	Zone 1	Zone 2	Zone 3	Zone 4	Zone 5
Quetta	X	Satisfactory in orchards on favorable sites			
LeGrand	X*	" "			
Freedom	X*	" "			

* Commercial production

Plums and Prunes

Only the best plum varieties are listed. A prune is a plum which is capable of becoming a satisfactory dried product.

EUROPEAN TYPES

The *Italian Prune* is the one that is grown to the largest extent commercially. It is a high yielder and requires no thinning. *Stanley* resembles Italian, but is sweeter, and has light colored flesh. It comes into bearing early and bears heavily. Under certain conditions the fruit is misshapen. *Demaris*, *Richards*, *Milton* and *Weatherspoon* are prunes that closely resemble Italian and ripen earlier. The *French Prune* is high yielding but is smaller than those listed above. *Reine Claude*, also called *Green Gage*, is a greenish colored plum that is an old favorite for home use. *Reine Red* is a red colored sport of *Reine Claude*. *Grand Prize* is a large plum suitable for home gardens. The *President* plum is a late ripening plum of large size that is very popular on the commercial market. It often requires thinning for acceptable size.

JAPANESE TYPES

Beauty is an early ripening plum.

Duarte is one of the finest red-fleshed plums grown. It appears to be suitable for commercial production in Idaho. *Santa Rosa* is suitable for limited commercial production for local market.

Satsuma is dull red with a purplish red flesh. *Elephant Heart* needs a pollinizer such as *Redheart* (similar to *Duarte*) planted near it. *Elephant Heart* is a large plum good for both the commercial market and home planting.

DAMSON TYPES

The *Damson* plums make up another group that are dependable in the home garden. *Shropshire* is a good variety.

HARDY AMERICAN TYPES

The hardy American plums may be used in the colder, high altitude zones where the European and Japanese sorts listed do not grow. They do not compete in quality. *Tecumseh*, *Underwood*, *Waneta*, *Wyant*, and *Ember* are good varieties. The cherry-plum hybrids *Oka*, *Opata*, *Sapa* and *Compass* may also be grown.

PLUMS	Zone 1	Zone 2	Zone 3	Zone 4	Zone 5
Santa Rosa	X	X	X		
Beauty	X	X	X		
French Prune	X	X	X		
Demaris	X*	X*	X		
Richards	X*	X*	X		
Milton	X*	X*	X		
Weatherspoon	X*	X*	X		
Stanley	X*	X*	X		
Italian Prune	X*	X*	X		
Reine Claude (Green Gage)	X	X	X	X	
Burbank's Grand Prize	X	X	X		
Reine Red	X	X	X		
President	X*				
Duarte	X	X			
Redheart	X	X			
Elephant Heart	X*	X			
Satsuma	X	X			
Damson (Shropshire)	X	X	X	X	
Tecumseh				X	X
Underwood				X	X
Waneta				X	X
Wyant				X	X
Ember				X	X
Cherry-Plum Hybrids:					
Oka				X	X
Opata				X	X
Sapa				X	X
Compass				X	X

* Commercial production

The President plum generally requires a pollinizer. Italian prune and Giant are satisfactory for this purpose. President blooms earlier than Italian but there usually is enough overlapping in their blossoming periods to assure adequate cross-pollination. Most Japanese plums are self-unfruitful. With the exception of Elephant Heart, the Japanese plums listed will pollinate each other. If Elephant Heart is to be grown, Redheart should be planted with it.

Sweet Cherries

The dark-colored, firm-meated *Bing* and *Lambert* cherries are probably the best sweet cherries. Lambert resembles Bing and ripens a little later. The light colored *Royal Anne* is the sweet variety preferred for maraschino cherries. It bleaches to a golden yellow shade desirable for artificial coloring. All sweet cherries are self-unfruitful and must be cross pollinated for satisfactory yields. In order to set satisfactory crops of cherries, all of the three varieties named above require a fourth variety planted nearby as a pollinizer. Bing, Lambert, and Royal Anne are not only self-unfruitful but also cross-unfruitful; that is, they are unable to fertilize each other. Therefore, one of the following should be planted with any one or with all three of those varieties; *Van*, *Sam*, *Deacon*, *Black Tartarian*, or *Black Republican*. These pollinizers are fairly good cherries, but not equal to Bing or Lambert. The *Spalding* is a new variety developed by the University of Idaho and is worthy of trial. It is a large, firm, black cherry ripening after Bing.

Grapes

Grapes, in addition to being good to eat fresh, are used for juice and jelly. They are relatively easy to grow wherever they are adapted.

Beta is small-berried and has firm, tight bunches. It is a juicy blue grape especially suitable for higher altitudes. It is good for juice and jelly but is not a table grape.

Agawam, *Lucile*, *Brighton*, *Keuka*, and *Delaware* are good red grapes. *Campbell Early* is an early ripening black grape and *Moore Early* an early ripening, purplish-black grape. *Van Buren* is a black grape like *Concord* that ripens ahead of *Campbell Early*. *Concord* is the best juice grape. It requires a long season for ripening. *Fredonia* and *Worden* are good blue grapes. *Sheridan* is a late ripening black grape. It ripens after *Concord*. *Niagara* is a good white grape. *Seneca* is an excellent white grape ripening ahead of *Campbell Early*. *Portland* is an early ripening green grape. The *Vinifera* grapes (European grapes) do well on the warmer sites of zone 1 but may suffer from winter injury when the temperature goes below zero. *Thompson Seedless*, *Flame Tokay* and *Ribier* are good varieties for those favorable sites. *Black Monukka* is a promising early black grape of European type. *Golden Muscat* is probably the highest quality European-American hybrid for Zone 1.

GRAPES	Zone 1	Zone 2	Zone 3	Zone 4	Zone 5
American Grapes:					
Beta (black)	X	X	X	X	
Agawam (red)	X	X			
Brighton (red)	X	X			
Van Buren (blue)	X	X	X		
Campbell Early (black)	X	X			
Fredonia (black)	X	X	X		
Lucile (red)	X	X			
Delaware (red)	X	X			
Concord (black)	X*				
Moore Early (purplish black)	X	X			
Niagara (white)	X	X			
Sheridan (black)	X				
Worden (black)	X	X			

* Commercial production

GRAPES	Zone 1	Zone 2	Zone 3	Zone 4	Zone 5
European Grapes and European-American hybrids:					
Thompson Seedless	X				
Flame Tokay	X				
Keuka	X				
Seneca	X	X			
Portland (green)	X	X	X		
Ribier	X				
Black Monukka	X				
Interlaken	X				
Fremont	X				
Golden Muscat	X				

Currants[†]

Currants will withstand very severe temperatures if given some protection by a windbreak. They do well in cool, moist climates.

Black Currants

Boskoop Giant is the choice for home plantings, has good size and quality, but is less productive than other varieties. *Climax* is preferred for commercial planting.

Red Currants

Red Lake is an excellent red currant. *Cascade* (Minn. No. 70) has larger berries than Red Lake and the fruit ripens a week earlier. *Viking* is a productive, late ripening currant that is said to be immune to white pine blister rust. *Perfection* has large, bright crimson berries.

White Currants

The *White Dutch* is the best white currant. *White Grape* is also good.

CURRENTS	Zone 1	Zone 2	Zone 3	Zone 4	Zone 5
Black Currents:					
Boskoop Giant	X	X	X	X	X
Climax	X*	X*	X*	X*	X
Red Currants:					
Red Lake	X*	X*	X*	X*	X
Cascade (Minn. No. 70)	X*	X*	X*	X*	X
Viking	X	X	X	X	X
Perfection	X	X	X	X	X
White Currants:					
White Dutch	X	X	X	X	X
White Grape	X	X	X	X	X

* Commercial production

Gooseberries

Gooseberries are like currants and will grow under similar conditions.

Chautauqua is fairly early and has large fruit of good quality. Its fruit is greenish yellow. The bush is small and somewhat spreading. *Poorman* is considered one of the best varieties. Plants are large and vigorous and extremely productive. *Downing, Oregon* and *Fredonia* are good varieties. *Welcome* is a recent introduction from Minnesota. It produces medium size fruit that has a light dull red skin and pink flesh. It is worthy of trial.

[†] Currants and gooseberries play a part in the spread of white pine blister rust. They should not be grown in northern Idaho where white pine is an important timber tree.

GOOSEBERRIES	Zone 1	Zone 2	Zone 3	Zone 4	Zone 5
Chautauqua	X	X	X	X	X
Downing	X	X	X	X	X
Poorman	X*	X*	X*	X*	X*
Fredonia	X	X	X	X	X
Oregon	X	X	X	X	X
Pixwell	X	X	X	X	X
Welcome	X	X	X	X	X

* Commercial production

Raspberries and Blackberries

Red raspberries grow almost anywhere in Idaho where the soil is deep, fairly rich, and free from a shallow hardpan or very high lime content. The soil should not have a high water-table at any time of year. Virus diseases are a great hazard in raspberry culture. *Washington, Marcy, Newburgh* and *Taylor* are somewhat resistant. *Latham* is very hardy and grown to a large extent. *Chief* is the hardiest of the good red varieties. *Sunrise* is an early ripening red raspberry. *Willamette* and *Canby* are varieties worthy of trial. *Indian summer* and *September* are good everbearers. The fall crop of *September* is earlier than that of *Indian Summer*.

Black raspberries are harder to grow because they are more susceptible to virus diseases. *Logan, Morrison, Cumberland* and *Blackhawk* are good varieties.

The purple raspberries are very good. *Sodus* is an excellent purple variety. *Marion* ripens later and is also vigorous and productive.

Eldorado, Brainerd and *Alfred* are leading blackberries. *Hedrick* and *Bailey* are two new varieties worthy of trial. *Bailey* ripens a week later than *Hedrick*. *Darrow*, a new variety ripening with *Eldorado*, is worthy of trial. *Marion*, another recent introduction has fine-flavored berries suitable for the frozen pack. It, too, is worthy of trial. Of the trailing blackberries, or dewberries, *Young, Boysen, Logan* and *Lucretia* are suitable for the milder zones. Thornless strains of some of the blackberries are available.

BLACKBERRIES	Zone 1	Zone 2	Zone 3	Zone 4	Zone 5
Alfred	X	X	X		
Eldorado	X	X	X		
Brainerd	X	X	X		
Hedrick	X	X	X		
Bailey	X	X	X		
Darrow	X	X	X		
Boysen	X		X		
Young	X				
Lucretia	X	X			
Logan	X				
Marion	X	X	X		

RASPBERRIES	Zone 1	Zone 2	Zone 3	Zone 4	Zone 5
Red:					
Marcy	X*	X*	X		
Washington	X*	X*	X		
Newburgh	X*	X*	X		
Taylor	X	X	X		
Latham	X*	X*	X*	X*	X*
Chief	X	X	X*	X*	X*
Sunrise	X	X	X	X	X
Indian Summer (everbearing)	X	X	X	X	X
September (everbearing)	X	X	X	X	X
Willamette	X	X			
Canby	X	X			
Black:					
Logan	X*	X*	X*		
Morrison	X*	X*	X*		
Blackhawk	X*	X*	X*		
Cumberland	X*	X*	X*		
Purple:					
Sodus	X	X	X		
Marion	X	X	X		

* Commercial production

Strawberries

Strawberries are the favorite berry of many people. They contain more vitamin C than citrus. The commercial grower, supplying the fresh market, finds that the high yielding *Robinson* and *Dorsett* make him the most money. The processors generally prefer *Marshall* and *Northwest*. *Fairfax*, *Narcissa* and *Catskill* are especially well adapted to northern Idaho. The home gardner, if he has a relatively frost-free site, can grow any of these varieties. If he does not, he may grow the everbearing varieties.

Rockhill (Wayzata) is probably the highest quality everbearer. It requires a good soil. *Red Rich* is a close second. *Twentieth Century* looks the best on the market. *Gem* is especially adapted to high altitudes. It is more acid than most berries and contains more vitamin C than the other varieties listed. *Streamliner*, *Utah Centennial*, *Superfection* and *Mastodon* may also be grown.

Everbearing varieties may be grown successfully in any of the five zones. They are often preferred in the colder zones because, with their longer blooming period, they are most likely to escape frost.

STRAWBERRIES	Zone 1	Zone 2	Zone 3	Zone 4	Zone 5
One Crop:					
Dorsett	X*	X*	X*	Frost is a limiting factor in growing strawberries in these zones. They may be raised commercially on favorable sites.	
Fairfax	X	X	X*		
Catskill	X	X*	X*		
Marshall	X*	X*	X		
Robinson	X*	X*	X		
Northwest	X*	X*	X		
Narcissa	X	X	X*		
Everbearing:					
Twentieth Century	X*	X*	X*	X*	X*
Rockhill (Wayzata)	X*	X*	X*	X*	X*
Red Rich	X	X	X	X	X
Gem	X	X	X*	X*	X*
Streamliner	X	X	X	X	X
Mastodon	X	X	X	X	X
Utah Centennial	X	X	X	X	X
Superfection	X	X	X	X	X

* Commercial production

Blueberries

Blueberries require a very acid soil that is high in organic matter. Such soils are rare in the major agricultural areas of Idaho. Blueberries, therefore, are not generally adapted to this state. In the cut-over areas of the Panhandle, soils sometimes attain the necessary degree of acidity but successful plantings are rare.

Jersey, *Stanley*, and *Coville* are good varieties to plant. *Stanley* is an early midseason variety and *Jersey* is late ripening.