

# gardens

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SOUTH DAKOTA STATE UNIVERSITY® AGRONOMY, HORTICULTURE & PLANT SCIENCE DEPARTMENT

# Fruit Variety 2019 Recommendations for South Dakota

Rhoda Burrows | Professor and SDSU Extension Horticulture Specialist Anne Fennell | Professor, Agronomy, Horticulture & Plant Science Department

The varieties listed in this publication were selected on the basis of general availability to the consumer and upon their known reliability, including disease resistance, for general growing conditions in South Dakota.

# TREE FRUIT

### **Apples**

Two cultivars are required for cross-pollination for fruit set; a crabapple will also work.



Frostbite apple Photo courtesy of David Hansen, University of Minnesota

Variety		Resistance to		C	C4	Notes	
	Scab	Cedar Apple Rust	Fireblight	Season	Storage		
Chestnut Crab	Good	Moderate	Good	Aug/Sept	Poor	Large crabapple with excellent	
						flavor	
Zestar	Poor	Moderate	Moderate	Aug/Sept	4-5 wks	Sweet, crisp, precocious	
Sweet 16	Moderate	Moderate	Moderate	Sept	Fair	Vigorous, slow to bear, very	
						sweet	
Honeycrisp	Excellent	Moderate	Good	Sept	7 months	Sweet, crisp; juicy, Young trees	
						susceptible to stress	
Cortland	Good	Moderate	Moderate	Sept	5 -6 wks	Excellent baking, cider	
Freedom	Good	Good	Good	Sept	Excellent	"Homely" but good flavor	
Liberty	Excellent	Excellent	Good	Sept/Oct	Good	Sweet-tart flavor	
Keepsake	Moderate	Excellent	Moderate	early Oct	Excellent	Homely apple, sweet, spicy	
Redfree	Excellent	Excellent	Moderate	Aug/Sept	4-8 wks	Sweet; Firm; Ripens unevenly	
Frostbite	Good	Moderate	Good	Early Oct.	12 wks.	Intense flavor; small apple	
Regent	Poor	Moderate	Moderate	mid-Oct	Good	Intermediate hardiness	
Haralson	Good	Good	Good	Oct	Good	Alternate year bearer; tart	
Snowsweet	Moderate	Moderate	Moderate	Oct	4-8 wks	Flesh slow to brown when cut	

**Notes:** Wealthy, State Fair, Beacon, and Honeygold are NOT generally recommended because of disease susceptibility. Unfortunately, resistance to apple scab seems to be decreasing (breaking down), even for the more resistant varieties. Varieties such as Delicious, Braeburn, Fuji, Gala, Jonathan, Goldens, etc. are NOT reliably hardy enough for South Dakota.

### Recommended rootstocks:

**Dwarfing** (Trees will usually require staking, at least for the first few years; do not use in harsher areas of the state.)

M26 or EMLA 26: 8-10 ft tall trees; hardy; but susceptible to fire blight.

**Bud 9 or M9:** 6-8 ft. tall trees; Bud 9 has fewer suckers than M9; hardy; will need staking because of shallow root system

Semidwarf (75-80% of normal tree size):

M111: Very hardy; can withstand drier soil; may need to special order.

M7 or 7a: 10 ft. tall trees); warmer areas of the state; not recommended for northern half of state where it can winterkill if there is not snow cover or good mulch during extreme cold.

**Seedling/standard size** rootstocks are generally hardy and result in larger, very long-lived trees, but will take longer to come into bearing.

### **Apricots**

Moongold and Sungold are moderately hardy, though they will often be short-lived. Unfortunately, they bloom early and the blossoms are more often than not killed by spring frosts. They require a second variety for cross-pollination.

Varieties for trial (no data is available yet on winter survival and fruiting in SD, but they are said to



Apricots
Photo by Craig Ledbetter, USDA-ARS

bloom later and have better fruit quality than Moongold or Sungold):

Self-pollinating\*: Harcot, Harogem, Brookcot

\*Yields may improve with a pollinator

Require pollinator: Harlayne (Harcot, Hargrand,

or Harogem are recommended

pollinizers);

Sugar Pearls (warmest areas

only)

#### **Pears**

Plant at least two cultivars for pollination. Pears bloom quite early, so the crop may be lost to late frosts. Allow adequate space (200 to 350 ft² per tree). Quince rootstocks are not hardy enough for South Dakota. Old Home x Farmingdale series rootstock OH x F 333 is

Pear Variety	Ripens	Fire blight Resistance	Self-fruitful	Fruit Size*	Flavor	Notes
Summercrisp	Mid-Aug	+	Partial?	М	Mild Sweet	Crisp texture (similar to Asian pear); UMN release
Ure	Mid-Aug	++	No	S-M	Bartlett-like	Juicy when fully ripe; from Morden Manitoba
Parker	Mid-Aug	-	Partial	L	Bartlett-like	Poor winterhardiness, use only in warmer areas of the state
Gourmet	Mid-Late Sept	+	No	М	Sweet	Juicy, firm crisp fruit; Pollen-sterile (can't be used to pollinate another variety); SDSU release
Luscious	Mid-Late Sept	+	No	S-M	Intense Bartlett-like	Attractive autumn color; Pollen-sterile (can't be used to pollinate another variety); SDSU release
Patten	Mid-Late Sept	-	Partial	L	Bartlett-like	Originated in Iowa; Slightly hardier than Parker; Tender and Juicy, Not for canning
Golden Spice	Sept-Oct	++	No	S	Variable	Very hardy; Good pollinator; showy flowers; small fruit
Siberian		+++				Inedible ornamental; use as pollinator

<sup>\*</sup>S=Small; M=medium; L=Large (Bartlett Sized)



Summercrisp Pear Photo courtesy of David Hansen, University of Minnesota



Cherries at NDSU research farm. Photo courtesy of Lynn Renee

resistant to fireblight, semi-dwarfing, and hardy enough at least for the warmer areas of the state.

#### **Cherries**

Plums and cherries bloom sooner than apples, so their flower buds/young fruit are more likely than apples to be killed by spring frosts. Only tart cherries are reliably hardy in South Dakota; tart cherries are self-fruitful.

North Star. Natural dwarf (6-10 ft); 3/4-inch diameter dark red fruit with dark red flesh; ornamental tree.

Meteor. Semi-dwarf (8-14 ft); larger fruit, bright red with yellow flesh; 7-10 days later to ripen.

Mesabi. Tart x sweet cross; sweeter fruit.

For trial (have not been tested in SD): **Surefire**, a later blooming variety with bright red skin and flesh; **Sweet Cherry Pie™**, a self-fruitful, sweeter tart cherry that is said to be hardy to -40°F, tree to 15 ft. high.

#### **Plums**

Hybrids (all those listed below except Mount Royal) need cross-pollination (i.e., plant two different cultivars).



**Toka** is an excellent pollinator. **Superior** will pollinate most

Alderman Plum Photo courtesy of David Hansen, University of Minnesota

plums, except for LaCrescent.

The fungal disease black knot, common in chokecherries, may infect plums and shorten tree life.

Plum Variety	Ripens	Winter- hardiness	Fruit Size	Skin Color	Flesh color	Notes
Underwood	Late July – early Aug	Very Hardy	М	Red	Yellow	MN release
Black Ice	Early Aug	Very Hardy	VL	Dark blue	Red	Vigorous; tough skin; sweet; precocious; small tree with vigorous growth – prune heavily; fruit may split with excessive rain
LaCrescent	Early-mid Aug	Very Hardy	S-M	Yellow	Yellow	Freestone
Toka	Mid-Aug	Very Hardy	S	Red	Yellow	"Bubblegum plum" - Wild plum hybrid; excellent pollinator; sweet/ spicy; SDSU
Waneta	Aug	Hardy	L	Red	Yellow	Juicy; prolific; small pit; SDSU
Alderman	Late Aug	Warmer areas of SD	L	Burgundy	Yellow	Large fruit; attractive tree; UMN
Pembina	Late Aug	Hardy	M-L	Red (blue waxy bloom)	Yellow	SDSU release
Pipestone	Late Aug	Hardy	VL	Red	Yellow	Sweet, Juicy; Clingstone; peels easily; Pollinators: Toka, Superior
Mount Royal	Late Aug-Sept.	Warmest areas only (Zone 5)	L	Deep blue	Yellow- green	Hardiest European plum; no pollinator needed; Freestone
Superior	Sept	Warmer areas of SD	L	Red	Yellow	Large fruit if thinned; clingstone; Sweet and juicy

# **SMALL FRUIT**

#### **Strawberries**

Cultivar	Season	Hardiness	Size	Texture	Flavor	Verticillium			
Junebearing:									
Allstar	Late mid	Fair	Medium	Very Good	Very Good	Resistant			
Annapolis	Early	Good	Medium	Very Good	Good	Susceptible			
Cavendish	Late mid	Very Good	Large	Excellent	Good	Unknown			
Dunlap	Mid	Excellent	SmMed	Fair	Good	Unknown			
Earliglow	Early	Fair	Small	Excellent	Excellent	Resistant			
Glooscap	Late mid	Excellent	Medium	Soft	Very Good	Intermediate			
*Honeoye	Early mid	Very Good	Medium	Fair***	Good	Susceptible			
Itasca	Early mid	Very Good	Medium	Mod. soft	"Tangerine"	?			
Jewel	Late mid	Fair to good	Large	Excellent	Excellent	Susceptible			
Kent	Late mid	Excellent	Medium	Fair***	Very Good	Susceptible			
**Mesabi	Midseason	Excellent	Med - L	Fair***	Very Good	?			
Sparkle	Late	Very Good	Medium	Good	Good	Susceptible			
Winona	Late	Very Good	Large	Excellent	Excellent	Unknown			
Veestar	Early	Good	Small	Good	Very Good	Intermediate			
Everbearing/day neutral:									
Ft. Laramie		Excellent	Large	Fair	Fair	Intermediate			
Ogallala		Excellent	Small	Good	Good	Unknown			
Tribute		Very Good	Medium	Very Good	Good	Resistant			
Tristar		Very Good	Sm Med	Very Good	Very Good	Resistant			
Albion		Fair	Large	Very Good	Good	Resistant			

Note: Day Neutral strawberries may be grown as annuals in protected culture, such as low or high tunnels.

#### **Currants**

Red and White (selffruitful, but may yield better with second red, white, or pink cultivar for pollination)

Blanka: White fruit, heavy yields on vigorous plants.



Red Currant Photo courtesy of Lynn Renee

Red Lake: Vigorous

upright shrub with clusters of large, bright red berries; susceptible to powdery mildew.

**Pink Champagne:** Light pink berries; good fresh or processed.

**Rovada:** Late season, very large red fruit; resistant to powdery mildew and other leaf diseases.

Black currants (generally not self-fruitful; need two black currant varieties for good production)

Ben Sarek: Very hardy compact plants, large soft fruit; good flavor; self-fertile; some susceptibility to white pine blister rust

**Consort:** Resistant to white pine blister rust, susceptible to mildew. Strong bitter flavor. Moderate hardiness.

Minaj Smyriou: Very hardy; Resistant to white pine blister rust; fruit somewhat dry

**Titiana:** Very good resistance to white pine blister rust; heavy yield of good quality sweet-tart fruit.

# Gooseberries

**Pixwell:** Medium-sized pinkish berries; bland flavor; has relatively few thorns.

<sup>\*</sup>Honeoye is not suggested for heavy soils \*\*Mesabi does not tolerant high pH soils \*\*\*Softens in hot weather

Hinnomaki Red: Good flavor and high yield; deep red, almost purple berries; good disease resistance

**Poorman:** Berries red with good flavor; sturdy, vigorous but thorny bush.

**Welcome:** Very hardy with few thorns. Berries light dull red, larger than Pixwell.

**Jewel:** Polish variety with peach-colored intensely flavored fruit, good disease resistance, compact growth

Black Velvet: Very hardy; sweet dark-red fruit; disease resistant

Jahn's Prairie: Very hardy; large sweet reddish-pink fruit; 5 ft. tall bush; resistant to mildew

**Jostaberry:** Gooseberry x black currant cross. Susceptible to white pine blister rust. Recommended only for the curious.

### **Raspberries**

Raspberries are susceptible to a number of viruses and other diseases. Be sure to acquire plants from a source that ensures their plants are virus-free.



Raspberry

#### Summer-fruiting:

**Prelude:** Technically fall bearing, but produces biggest portion of crop in early summer (late June?) on floricanes. Hardy in warmer areas of state, medium to large berries, variable flavor. Vigorous plants. Resistant to root rots.

**Boyne:** Early to mid-season. Berries are medium-sized, dark-red, sweet. Very hardy; productive; suckers freely. Susceptible to anthracnose and fire blight. Fruit can be quite small, freezes well. Upright, short, very spiny canes.

Latham: Bright red fruit opens over long period; very good for processing but not fresh eating. Fruit can be quite small. Spiny canes; vigorous plants require trellis. Not as productive, but disease-resistant, except for viruses. Hardy.

Nova: Early to mid-season. Bright-red medium to large

firm fruit, somewhat acidic. Stores very well. Very few spines; vigorous; with high yield. Hardy and disease resistant. Very reliable. May be particular attractive to deer!

**Killarney:** Mid-season; very productive; very bright red firm fruit that softens in hot weather. Fair flavor, tends to turn brown if canned. Susceptible to anthracnose and mildew, but resistant to root rots. Canes are medium short, spiny, and very hardy. High yielding.

**Encore:** Late season; Large sweet berries; vigorous, nearly thornless canes. Hardy. Moderately susceptible to root rots.

# Fall-fruiting:

Autumn Bliss: Large dark red to purplish fruit; good tart flavor; fruit freezes well. Spiny canes, medium ht. High yield. Susc. to crumbly fruit virus, otherwise very reliable.

Autumn Britten: Medium to dark red fruit; early yield. Compared to Autumn Bliss, it has fewer spines, better quality fruit, less vigorous canes and lower yielding (plant closer together to compensate).

Caroline: Large, long red fruit, sweet with fair flavor and shelf life; freezes well. Some disease resistance; good yield, but late for northern areas. Sensitive to drought. Moderate to good resistance to Phytophthora root rot.

**Double Delight:** Early, high yielding (smallish fruit, but many double fruit), medium-red fruit, hardy

Fall Gold: Medium fruit, yellow with pink blush, soft, with excellent very sweet flavor; poor for processing. Vigorous canes; suckers profusely.

Polana: Early fall (three weeks before Heritage). Large, bright red fruit; good flavor. Many double fruits. Short canes with high yield. Thrives under high soil fertility. Susceptible to Verticillium wilt and Phytophthora crown rots.

Red Wing: Very productive in areas with later fall frosts (fruits later than Autumn Bliss but before Heritage. Fruit tends to be soft; doesn't ship well. Tall canes with high yield. Susceptible to anthracnose – cut all canes to ground during the winter.

The following fall-fruiting (mid- to late Sept) types are

very late season and fruits are often lost to early frosts; therefore, they should only be planted in the warmer areas of South Dakota, or in high tunnels:

Anne. Large, yellow, excellently flavored fruit; slightly earlier than Heritage; slow-growing, relatively low yield, but disease resistant.

**Heritage.** Good quality bright red fruit; taller canes, requires trellis; very late.

Kiwi Gold (Heritage sport). Med. to large peachy yellow berries with excellent flavor; ripens same time as Heritage.

Purple raspberries: Warmest areas of South Dakota only (due to late ripening as well as winter hardiness).

**Royalty.** Large soft fruit; good flavor. Tall thorny canes; requires trellis. Susceptible to drought and crown gall.

Black raspberries: are not recommended except in the very warmest regions of South Dakota due to lack of winter hardiness, and then only in protected areas. Jewel is the hardiest black raspberry, with small fruit; may be invasive in warmer areas.

**Primocane blackberries:** Crowns are not reliably hardy in South Dakota. Some other blackberry cultivars are described as hardy, but often die-back, especially in open winters or with sudden drops in temperature.

#### **SHRUB FRUIT**

#### Honeyberry/Haskaps (Lonicera caerulea)

These fruit originate from moist northern forest regions of Japan, Eurasia and North America. Selections from Japanese types generally go by the name "Haskap," while those from



Honeyberry Photo courtesy of Karen Hine

Eurasia are generally called "Honeyberry." Most types need at least two different, compatible varieties to pollinate each other. Although they bloom very early, their blooms can withstand down to 20°F. The flavorful fruit can be used fresh or in processing; and make a very good substitute for blueberries, which are not adapted to South Dakota soils and climate. Be aware that the berries reach full ripeness up to three weeks

after turning color.

**Note:** Because this is a new fruit to South Dakota, consider plantings as experimental. However, we do have several commercial plantings east of the Missouri river. New improved varieties are being released each year, with improved flavor.

#### Early to Mid-season

Aurora: Large firm relatively sweet berries, upright growth, at least partially self-fruitful, good yields, mildew resistant

Honey Bee: Large berries, a bit tart, upright growth, leaves resistant to sunburn and mildew; good pollinizer

**Indigo Treat:** Sweet-tart firm berries; very early; some tolerance to mildew and sunburn

**Note:** a similarly named "Indigo Gem" is very susceptible to sunburn and mildew.

Tundra: Sweet firm berry; early-ripening; foliage sunburns easily

### **Later Season (Japanese selections)**

Solo 'Kapu': Self-fruitful (but larger berries with pollinizer); sweet-tart firm berry; YezBerry™ cultivar

Maxie: Very large sweet-tart fruit; YezBerry™ cultivar

**Keiko:** Sweet, medium-large berries; susceptible to powdery mildew

#### (Western) sandcherry (Prunus besseyi)

Small native shrub, may be partially self-sterile; small dark fruit used in jams and jellies. Sometimes called "Hansen bush cherry." Ornamental spring bloom and fall color.

# Nanking cherry (Prunus tomentosa)

Large shrub, may be at least partially self-sterile; small bright red fruit, sweet-tart cherry flavor, used fresh or processed. Also sometimes called "Hansen bush cherry." Needs winter protection from rabbits.

# Aronia (Aronia melanocarpa = Photinia melanocarpa)

Sometimes called black "chokeberry." Self-fruitful. Small dark fruit is astringent, mostly used processed.

Very attractive shrub with white flowers, shiny darkgreen foliage and good fall color. Cultivars: Nero 3-4', Viking 3-6', McKenzie 6-10' high.

# Buffaloberry (Shepherdia argentea)

Native shrub; thorny male and female plants (need both for fruit!); orange-red tart fruit best after frost. Very drought tolerant.



Buffaloberry

# Chokecherry (Prunus virginiana)

Native shrub or small tree. Small astringent fruit usually red or very dark red, but yellow selections exist.



Chokecherry

# Juneberry/Serviceberry (Amelanchier alnifolia)

Native shrub, also known as Saskatoon. Self-fruitful. Small edible fruit, good fresh or processed, much loved by birds. Named cultivars may be difficult to obtain with the exception



Juneberries

of "Regent" which is a shorter (to 6 ft) ornamental variety with comparative low yield of rather bland fruit. Look for selections for fruit including Smokey, Martin, Honeywood, Northline, Pembina, and others.

# American highbush cranberry (Viburnum trilobum)

Unlike its relative, the European highbush cranberry (V. opulus), the red fruit of this native species is edible and can be used for juice, jams, or jellies. Very hardy attractive shrub. Needs second shrub for good fruit set.

# Elderberry (Sambucus canadensis)

Fruit is dark purple and used for jams, jellies, juice, or wine. Partially self-fruitful; tolerates some shade; not drought tolerant. Ranch, Adams2, Nova,



Elderberry

Scotia and Johns are

varieties selected for their fruit; **Scotia** berries have the highest sugar content; **Nova** berries are also said to be less astringent.

For more information on fruit growing, see:

**Strawberries in South Dakota.** Burrows, R. and A. Fennell. 2016

**Growing Raspberries in South Dakota.** Burrows, R. and A. Fennell. 2015.

Fire Blight. Burrows, R. 2018. <a href="https://extension.sdstate.edu/sites/default/files/2018-12/06-2003-2018.pdf">https://extension.sdstate.edu/sites/default/files/2018-12/06-2003-2018.pdf</a>

**Grape Varieties for South Dakota.** Burrows, R. and A. Fennell. 2015.

Soil Testing for Vineyards in South Dakota.

R. Burrows. 2019. <a href="https://extension.sdstate.edu/soil-testing-vineyards-south-dakota">https://extension.sdstate.edu/soil-testing-vineyards-south-dakota</a>

Overhead Netting for Vineyards and Orchards.

Burrows, R., A. Bender, A. Fennell, and B. Thaden.



Winona Strawberries
Photo courtesy of David Hansen,
University of Minnesota