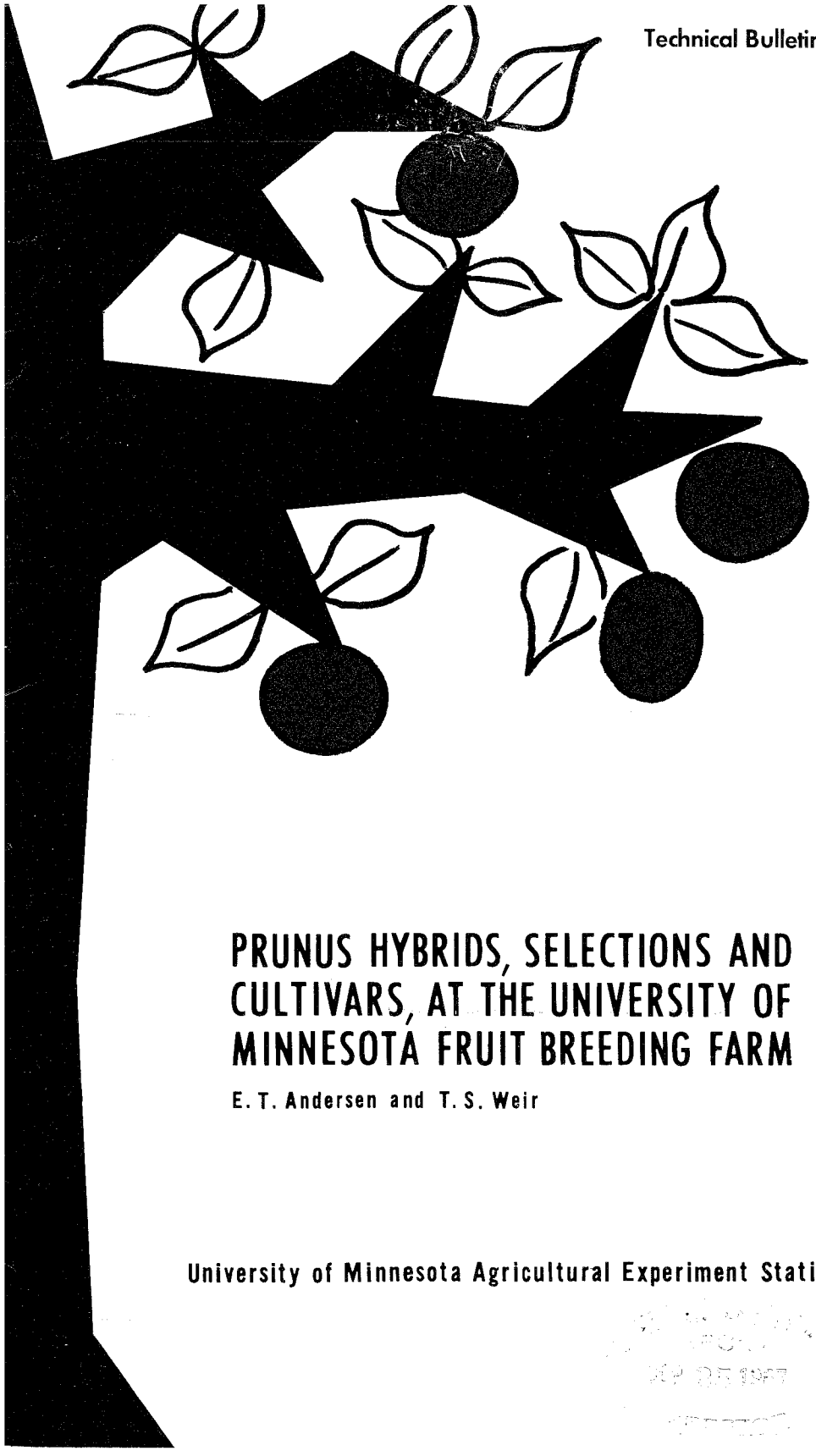

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PRUNUS HYBRIDS, SELECTIONS AND CULTIVARS, AT THE UNIVERSITY OF MINNESOTA FRUIT BREEDING FARM

E. T. Andersen and T. S. Weir

University of Minnesota Agricultural Experiment Station

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Prunus Hybrids, Selections And Cultivars, At The University Of Minnesota Fruit Breeding Farm

E. T. Andersen and T. S. Weir

Fruit breeding has been a recognized responsibility of the University of Minnesota since 1878. Early successes encouraged the 1907 state legislature to establish a University Fruit Breeding Farm near Excelsior, about 20 miles southwest of Minneapolis. From the outset, work in stone fruit breeding has been prominent; hardy plums with fruit qualities superior to those of native species have been sought. This search led to interspecies hybridization of many *Prunus* varieties and the selection and propagation of improved plants. Several plants, particularly those involving native plum species with the diploid number of chromosomes crossed with diploid plum species from the Orient, were named and introduced as varieties.

Many others have remained as numbered selections in trial orchards because they possess interesting character combinations but lack some important characteristics required of satisfactory varieties. Selections made from crosses between plum and apricot, plum and peach, or peach and apricot species are generally in this category. Most of these selections are unsuitable as varieties because they lack hardiness, are sterile, or are very shy bearers.

This report describes representative material selected from species populations and from populations resulting from interspecies hybridization. Knowledge of these crosses can benefit breeders, even though no successful cultivars resulted directly from them. Such information indicates that successful crosses can be made. New breeding techniques might make it possible to use such crosses for introducing desirable characters into useful combinations.

Most named varieties included in this report either were used as parents in the breeding programs or resulted from such programs. They usually carry characters for hardiness, fruit size, or quality that complement the characters available in native or hardy material adapted to the Minnesota region. Descriptions of these varieties are available in other publications. Nevertheless, the brief descriptions provided here have value for comparative purposes relative to unnamed materials. Therefore, readers can make comparisons with plants which, in many instances, are already well known to them.

Lack of hardiness of many materials has presented a problem. Most crosses involving peach proved insufficiently hardy to withstand winter conditions at the Fruit Breeding Farm. As a consequence, many selections containing peach,

E. T. Andersen is an associate professor, Department of Horticultural Science, and T. S. Weir is an associate professor and assistant superintendent, Fruit Breeding Farm, University of Minnesota.

Table 1. Minimum temperatures, Minneapolis, November-May 1955-64

Year	November	December	January	February	March	April	May
1955-56	29	−2	−18	−7	−8	24	33
1956-57	5	0	−13	−7	−1	18	33
1957-58	6	−4	−3	−15	18	26	34
1958-59	−5	−13	−16	−11	7	28	35
1959-60	−2	12	−19	−7	16	21	28
1960-61	3	−12	−21	−9	4	15	24
1961-62	12	−18	−28	−26	−32	2	34
1962-63	4	−20	−32	−19	−9	23	28
1963-64	12	−20	−12	1	1	19	40

or other species not highly cold tolerant, perished and are no longer available. Hybrid materials of these plants could be resynthesized for use in milder areas.

Table 1 presents minimum monthly temperatures over a 9-year period for the dormant seasons as reported by the U.S. Department of Commerce for their Minneapolis Weather Station. Note that low temperatures may occur early or late in winter, as well as in midwinter.

In some seasons, moisture stress is also a problem. Table 2 presents the total monthly precipitation for the growing seasons of 1954-64. Both total and monthly precipitation figures vary greatly. Because of periodic drought, stone fruit trees at the Fruit Breeding Farm are generally grown under clean cultivated conditions. This practice results in other complications which may affect the longevity of some selections and varieties. Under clean cultivation, conditions of moisture and available soil nitrates often encourage late fall vegetative growth. Such growth leads to a late or reduced degree of hardening of plant tissues, with a consequent high susceptibility to winter injury or killing.

Table 2. Precipitation in inches at the Fruit Breeding Farm for months of the growing season, 1954-64

Year	May	June	July	August	September	October	Growing season, total
1954	4.43	6.09	4.06	2.85	3.41	1.75	22.59
1955	0.86	2.11	7.12	2.83	1.35	1.36	15.63
1956	2.82	7.81	5.03	5.76	0.40	1.71	23.53
1957	3.97	7.04	4.57	6.73	2.69	1.60	26.60
1958	1.85	2.54	2.48	3.06	1.34	1.89	13.16
1959	6.28	4.76	2.75	6.40	2.36	1.47	24.02
1960	5.28	2.61	4.79	4.29	4.13	0.54	21.64
1961	4.57	1.07	5.96	1.40	3.90	3.17	20.07
1962	6.65	3.19	5.57	4.17	2.79	1.02	23.39
1963	4.35	4.58	2.06	1.08	2.74	0.81	15.62
1964	3.98	3.91	1.39	6.70	4.80	0.26	21.04

Moreover, the soils at the Fruit Breeding Farm are a heavy silty clay loam; during excess rainfall, they tend to be wet because of poor drainage. No doubt, some plants suffered injury due to temporary wet soil conditions. Results should be considered in relation to this test environment.

METHOD OF PRESENTATION

All plums were grouped in consecutive order followed by plum by apricot or plum by peach hybrids. Named varieties within each group were listed alphabetically.

Because of the many species involved in some groups, the common classification of plum, cherry, etc., was used to title the group. Numbered selections and materials introduced as unnamed clones were designated by the selection number or identification received from the originator or supplier. A permanent record of all materials introduced and listed is kept at the Fruit Breeding Farm.

PARENTAGE: Parentage of each item was included whenever this information could be ascertained with confidence. A list of these parent clones, indicating the species from which they were derived, also was included (see the appendix). Therefore, if parentage was of a hybrid nature, the species involved can be determined by referring to this list.

ORIGIN: The origin of the clone or material was included for most items. In a few instances, this information was not available.

DESCRIPTION: The brief descriptions primarily provide information for plant breeders. Fruit size, color, quality, productiveness, and hardiness, as experienced under the rather rigorous conditions of Minnesota's climate, were emphasized. If other features were important, such as disease susceptibility, they were noted.

This report in no way represents a complete coverage of all *Prunus* materials of interest. Types, varieties, selections, and species within this genus are extremely numerous and varied; only a small proportion of them can be grown satisfactorily in Minnesota's climate. However, enough items were included to indicate the general range of adaptability and fruit types likely to be encountered. Some materials that are not well adapted also were discussed to indicate possible uses or limitations.

DISCUSSION

Within the genus *Prunus*, improvement work on plums has been more extensive than work with other stone fruits. Several native hardy species were available and easily adapted to such a program. Fruits of these indigenous forms are of relatively low culinary and dessert quality; most are small in size. Several species, introduced from the Orient, contain qualities that offer possibilities for developing improved cultivars through hybridization with native species.

Some of these Oriental and native species are diploid in chromosome number; they were readily hybridized to produce viable seeds and strong seedlings. Many seedlings, incorporating qualities from these several species, were pro-

duced. Over 20 of the best selections of these seedlings were named and introduced to the trade. Although hardy and fairly well adapted, these varieties have not been highly successful. The following may be the main reasons for this failure.

1. As a group, the selections produce very little viable pollen. Consequently, they are not only self-sterile but also highly cross-sterile. Therefore, special pollinizer varieties, often of rather poor fruit quality, must be included in orchard plantings.

2. Although they have satisfactory fresh-dessert fruit quality, these selections are not satisfactory when canned as sauce. Also, the fruit softens rapidly after maturity and has a relatively short storage or market life.

3. Blossoming occurs in early spring, and spring frosts are always a hazard.

In general, plums of the European species *Prunus domestica* are superior to these hybrids in all three of the above aspects. Therefore, except where extreme hardiness is essential to plum culture, these new hybrid varieties probably will continue to be low in popularity. Qualities inherent in the European plum species apparently are essential to significant future improvement of plums.

The improvement of stone fruits other than plums also has been investigated. Apricot and sour cherry varieties suitable to Minnesota conditions were introduced. Hardiness was obtained by crossing commercial types of these fruits with wild species carrying a high degree of cold tolerance. Hardiness in the two Minnesota apricot varieties, Moongold and Sungold, came from the hardy Manchurian apricot.

Although the Manchurian apricot virtually is inedible, it crosses readily with varieties of commercial apricots when used as the pollen parent. Numerous selections were made from crosses incorporating these two types which are intermediate in both hardiness and fruit qualities between the parent forms. No doubt, continued crossing and selection within this material will lead to even better cultivars. Large fruited selections that flower late in spring are being sought.

Two pie or sour cherry varieties, Meteor and Northstar, were developed and introduced by the Minnesota Fruit Breeding Farm. These varieties incorporate hardiness from species types growing near the northern limits of their ranges with the fruit quality and size of highly selected forms. Meteor and Northstar represent considerable improvement in sour cherry varieties for Minnesota, but greater improvement is certain to be accomplished. The bush type of sour cherry, *Prunus fruticosa*, possesses a level of hardiness far exceeding that of either Northstar or Meteor, but it is low in fruit quality. This species is dwarf and bush in habit, traits that may have value in future fruit production practices. This species crosses readily with common commercial varieties of sour cherries.

Difficulty has been experienced in the development of hardy sweet cherries. Hybridization between wild Mazzard cherries from Norway and high quality sweet cherry cultivars produced many seedlings hardier than the high quality parent cultivars. However, fruit quality and size are disappointing; none of these seedlings is considered worthy of naming. Nevertheless, these materials provide evidence that hardier sweet cherries are possible.

Considerable effort has been expended, with little tangible success, to develop hardy peaches at the Minnesota Fruit Breeding Farm. *Prunus davidiana* is closely related to *Prunus persica;* the two were successfully hybridized. Seedlings and selections from such crosses were much hardier than cultivars of *Prunus persica*. However, hardiness has never been sufficient to permit their survival or successful culture in orchard plantings for more than a few years. Although generally rather shy bearers, several selections produced fruit of fairly acceptable quality.

Hybridization of peach and plum species resulted in a few seedlings, usually sterile, very weak, or lacking in hardiness. Lack of hardiness in peach material is the major obstacle in developing satisfactory peach varieties. But peach and plum species have been hybridized and will produce satisfactory seedlings. Further exploitation of incorporating hardiness into combinations carrying fruit characters of the peach deserves attention.

SUMMARY

The evaluation and description of *Prunus* materials in this bulletin were limited largely to those used in stone fruit improvement work carried on at the University of Minnesota Fruit Breeding Farm. Since lack of hardiness has been a major problem in the success of all of these fruits in Minnesota, special emphasis has been placed on combining cold tolerance with good fruit characters. To this end, many interspecies hybrids have been developed, tested, and evaluated.

This publication should provide a useful guide to the stone fruit breeder trying to develop hardy high quality cultivars. Knowledge of parent species and clones that have produced successful progenies should prove of substantial aid. Although much material described here is no longer alive at the Fruit Breeding Farm, such information demonstrates the possibilities of certain progenies. Investigators in less severe climates may find considerable value in progenies unsuited to Minnesota.

Apricots And Apricot Hybrids

FLOR-TSIRAN*

Parentage: *Prunus dasycarpa*
Origin: received by University of Minnesota as U.S. Plant Introduction 119865 in 1937; a named variety obtained by Russia from Armenia; has never fruited in trials; not hardy in Minnesota

MANCHU

Parentage: *Prunus sibirica* (Manchurian strain)
Origin: South Dakota State College, Brookings; from seed obtained from Northern Manchuria
Tree: spreading, vigorous, productive, hardy; blooms early May; ripens early August
Fruit: (figure 1):
Size: 1¼ x 1⅛ inches
Form: round, oblong with unequal halves
Apex: pointed
Cavity: small, moderately deep
Suture: shallow, continuous
Stem: sessile
Skin: burnt orange with blush, lightly pubescent, moderately tough
Flesh: orange, smooth, slightly dry
Flavor: slightly acid
Quality: fair
Stone: ⅞ x 5/16 inch, oblong, free

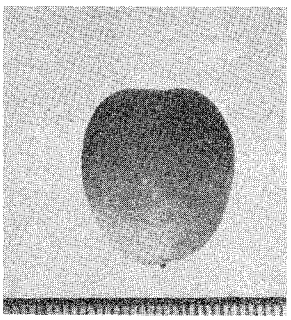

Fig. 1. Manchu.

MOONGOLD (MINN. NO. 15) (17)[1]

Parentage: Superb x Manchu
Origin: University of Minnesota, named in 1960

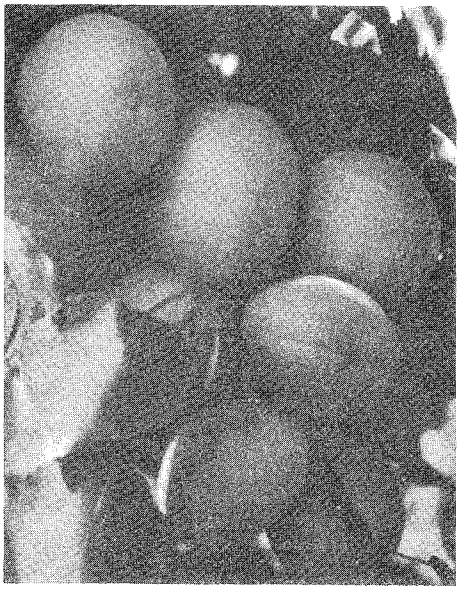

Fig. 2. Moongold.

Tree: vigorous, productive; has winter-hardy fruit buds; ripens unevenly with some splitting; has fruit that drops prematurely
Fruit (figure 2):
Size: 1 3/16 x 1 5/16 inches
Form: oblate
Apex: depressed
Cavity: wide, shallow
Suture: shallow, continuous
Stem: sessile
Skin: light creamy apricot with mottled red blush, finely pubescent, moderately thick, tender
Flesh: light yellow, tender, moderately juicy
Flavor: sweet
Quality: good
Stone: ¾ x ⅝ inch, nearly round, flattened at base, free; has bitter pit

SCOUT (13)

Parentage: *Prunus mandshurica* or one of its hybrids

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* Perished in our trials and is no longer growing at the University of Minnesota Fruit Breeding Farm.
[1] Numbers in parentheses refer to literature citations on page 51.

Origin: Experiment Station, Morden, Manitoba, Canada; from seed obtained from Manchuria
Tree: moderately vigorous; has flower buds that winterkill; fruits sparingly; blooms early May; ripens early August
Fruit:
Size: 1 3/16 x 1 inch
Form: roundish, oval, much compressed
Apex: long with point
Cavity: small
Suture: barely discernible
Stem: sessile
Skin: dull orange, slightly pubescent, thin, tender
Flesh: orange, tender with some fiber, moderately juicy
Flavor: mild
Quality: fair to good
Stone: 7/8 x 11/16 inch, oval, free; has bitter pit

SINO (13)

Parentage: *Prunus sibirica* (Manchurian strain)
Origin: South Dakota State College, Brookings
Tree: vigorous, susceptible to brown rot and leaf spot, not entirely hardy but generally survives
Fruit (figure 3):
Size: 1¼ x 1¼ inches
Form: round with unequal halves
Apex: depressed to flat
Cavity: shallow, wide
Suture: slight, shallow
Stem: sessile
Skin: bright orange with red blush, slightly pubescent, thick, tough
Flesh: orange, melting, juicy
Flavor: good, slightly tart
Quality: good
Stone: 7/8 x 11/16 inch, large, oval, not entirely free

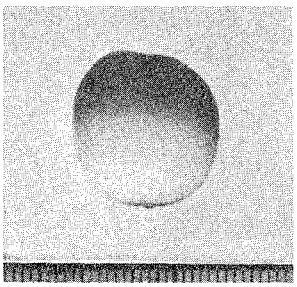


Fig. 3. Sino.

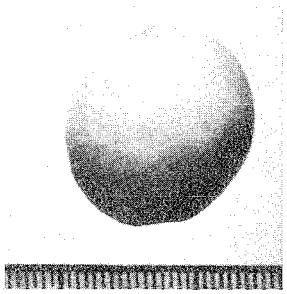


Fig. 4. Sungold (Minn. No. 36).

SUNGOLD (MINN. NO. 36) (17)

Parentage: Superb x Manchu
Origin: University of Minnesota, named in 1960
Tree: vigorous, hardy; showed good survival of fruit buds in 4 out of 5 winters; blooms early May; ripens late July
Fruit (figure 4):
Size: 1¼ x 1 3/16 inches
Form: somewhat compressed
Apex: slightly raised with small pistil point
Cavity: wide, moderately deep
Suture: continuous, a line
Stem: sessile
Skin: orange, moderately pubescent, tender
Flesh: orange, tender, moderately juicy
Flavor: mild, sweet
Quality: very good
Stone: 13/16 x 5/8 inch, ovate, free; has bitter pit

TOLA

Parentage: *Prunus sibirica* (Manchurian strain)
Origin: South Dakota State College, Brookings; from seed obtained from Northern Manchuria
Tree: moderately vigorous, apparently hardy; blooms early May; ripens mid-August
Fruit (figure 5):
Size: 1¼ x 1¼ inches
Form: roundish, conic
Apex: roundish with point
Cavity: moderately deep, moderately wide
Suture: moderately wide, depressed
Stem: sessile
Skin: pale greenish yellow, moderately pubescent, tough
Flesh: yellow, slightly stringy, moderately dry
Flavor: sour
Quality: poor
Stone: medium, free; has bitter pit

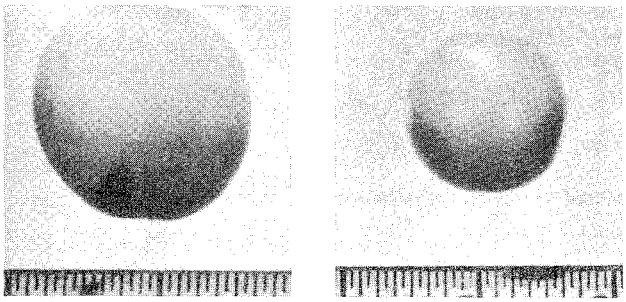


Fig. 5. Left: Tola. Right: Minnesota Accession N3734.

MINNESOTA ACCESSION N3445*

Parentage: *Prunus dasycarpa*
Source: Arnold Arboretum, received by University of Minnesota in 1934
Tree: small to 12 feet high, moderately hardy, fairly productive
Fruit:
- Size: 1¼ x 1¼ inches
- Form: round, oblique with unequal halves
- Apex: depressed
- Cavity: small, deep
- Suture: a line, continuous
- Stem: medium
- Skin: purplish to black, moderately pubescent, tough
- Flesh: burnt orange, moderately juicy
- Flavor: acid, apricotlike
- Quality: fair
- Stone: ⅝ x ½ inch, oblong, cling

MINNESOTA ACCESSION N3734

Parentage: *Prunus dasycarpa* hybrid, probably a natural plum-cot combining *P. dasycarpa* with either *P. simoni*, *P. salicina*, or *P. cerasifera*
Source: received by University of Minnesota as U.S. Plant Introduction 119864 in 1937; obtained from Russia
Tree: semihardy in Minnesota
Fruit (figure 5):
- Size: 1 1/16 x 1 1/16 inches
- Form: nearly round
- Apex: round
- Cavity: small, abrupt
- Suture: a faint line or not visible
- Stem: very short, 3/16 inch long
- Skin: orange with faint blush, thin, tough; has no bloom
- Flesh: dark yellow, stringy, juicy
- Flavor: plumlike, suggestive of *P. simoni*
- Quality: fair
- Stone: 11/16 x 9/16 inch, nearly round, cling

MINNESOTA ACCESSION N3735

Parentage: *Prunus dasycarpa*
Source: received by University of Minnesota as U.S. Plant Introduction 119866 in 1937; obtained from Russia
Tree: not hardy in Minnesota; has never fruited in trials

MINNESOTA ACCESSION N4013

Parentage: *Prunus besseyi x P. sibirica*
Origin: Experiment Station, Morden, Manitoba, Canada; received as R-6A-1 in 1940
Tree: spreading, hardy; fruits sparsely; blooms mid-May; ripens early August
Fruit:
- Size: 1⅛ x 1 inch
- Form: oblong, flattened
- Apex: round with point
- Cavity: narrow, shallow
- Suture: continuous, wide, shallow, distinct
- Stem: short, thick
- Skin: dark reddish purple, finely pubescent, moderately tough
- Flesh: orange, crisp, juicy
- Flavor: sour, bitter
- Quality: poor
- Stone: ¾ x 9/16 inch, oblong, oval, free

MINNESOTA ACCESSION N4364

Parentage: Sapa x Scout apricot
Origin: Experiment Station, Morden, Manitoba, Canada; received by University of Minnesota in 1943
Tree: moderately spreading, hardy, not productive; blooms early May; ripens mid-August

* Perished in our trials and is no longer growing at the University of Minnesota Fruit Breeding Farm.

Fruit:
- Size: 1¼ x 1 inch
- Form: oblong
- Apex: round
- Cavity: narrow, shallow
- Suture: deep at cavity end, a line at apex
- Stem: ½ inch long
- Skin: dark reddish purple, finely pubescent, moderately tough
- Flesh: red, moderately firm, moderately juicy
- Flavor: fair
- Quality: fair
- Stone: ⅞ x ½ inch, oval, pointed at ends, almost free

MINNESOTA NO. 4

Parentage: Minnesota Accession N39122 (*Prunus sibirica* seedlings from North Dakota Agricultural College, Fargo)
Origin: University of Minnesota, selected in 1944
Tree: upright, spreading, vigorous, winter hardy; blooms early May; ripens mid-July; usually escapes blossom bud damage
Fruit (figure 6):
- Size: 1 x 1 inch
- Form: round
- Apex: round with slight pistil point
- Cavity: deep; tears when picked
- Suture: moderately deep, narrow; splits in some years
- Stem: sessile
- Skin: orange yellow with red blush, finely pubescent, tender
- Flesh: pale apricot to yellow, tender with no fiber, moderately juicy
- Flavor: nearly sweet
- Quality: good
- Stone: ¾ x ⅝ inch, ovate with medium to large wing, free

MINNESOTA NO. 6

Parentage: Minnesota Accession N39122 (*Prunus sibirica* seedlings from North Dakota Agricultural College, Fargo)
Origin: University of Minnesota, selected in 1944
Tree: upright, spreading, vigorous, winter hardy; blooms early May; ripens late July; escapes blossom bud damage in most seasons
Fruit (figure 6):
- Size: 1 x 4/5 inch
- Form: oval
- Apex: round
- Cavity: narrow, abrupt
- Suture: shallow, distinct
- Stem: sessile
- Skin: medium yellow with light reddish blush, very finely pubescent, tender, moderately thick
- Flesh: medium yellow, tender, slightly fibrous, moderately juicy
- Flavor: sweet, pleasant
- Quality: good
- Stone: ⅝ x ⅞ inch, ovate, plump, free; has bitter pit

MINNESOTA NO. 26

Parentage: Moorpark x *Prunus sibirica*
Origin: University of Minnesota F_2 selection in 1947
Tree: vigorous, spreading, susceptible to scab and brown rot; blooms early May; ripens late July
Fruit (figure 7):
- Size: 1⅛ x 1 1/16 inches
- Form: oval, compressed at cavity end
- Apex: round with medium pistil point
- Cavity: wide to moderately wide; splits readily
- Suture: shallow, moderately wide
- Stem: sessile
- Skin: orange with red blush, moderately pubescent, moderately tender
- Flesh: orange, crisp, moderately stringy, moderately juicy
- Flavor: slightly sweet, good

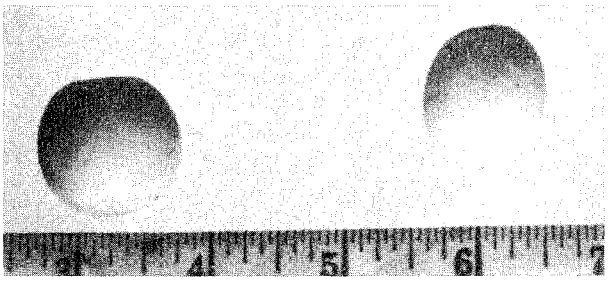


Fig. 6. Left: Minnesota No. 4. Right: Minnesota No. 6.

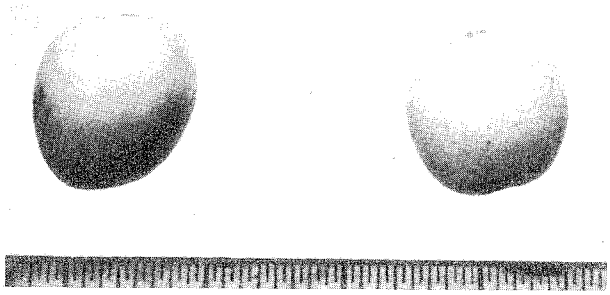


Fig. 7. Left: Minnesota No. 26. Right: Minnesota No. 27.

Quality: good
Stone: ¾ x 9/16 inch, pointed, ovate with medium wing, free; has bitter pit

MINNESOTA NO. 27

Parentage: Moorpark x *Prunus sibirica*
Origin: University of Minnesota F_2 selection in 1927
Tree: vigorous, spreading; blooms early May; ripens mid to late July
Fruit (figure 7):
Size: 1⅛ x 1 3/16 inches
Form: compressed with unequal halves
Apex: depressed with very slight pistil point
Cavity: deep, flaring
Suture: deep, continuous
Stem: sessile
Skin: medium yellow with attractive blush, moderately pubescent, thin, moderately tough
Flesh: light orange, slightly stringy, dry
Flavor: sweet, pleasant
Quality: good
Stone: 11/16 x 9/16 inch, ovate with medium wing, free; has bitter pit

MINNESOTA NO. 46

Parentage: Superb x Manchu
Origin: University of Minnesota, selected in 1949
Tree: hardy, moderately productive; has good fruit bud survival; blooms early May; ripens late July
Fruit (figure 8):
Size: 1⅜ x 1½ inches
Form: oval
Apex: slightly flattened
Cavity: fairly deep; tends to tear when picked
Suture: shallow, continuous
Stem: sessile
Skin: medium orange with slight red blush, moderately pubescent, thin, tender
Flesh: light to medium golden yellow, firm, tender, juicy
Flavor: sweet
Quality: excellent
Stone: ⅝ x ⅞ inch, ovate, pointed, free; has bitter pit

MINNESOTA NO. 47

Parentage: Superb x Manchu
Origin: University of Minnesota, selected in 1949
Tree: hardy, of medium height, productive, spreading, moderately resistant to scab and brown rot; has good fruit bud survival;

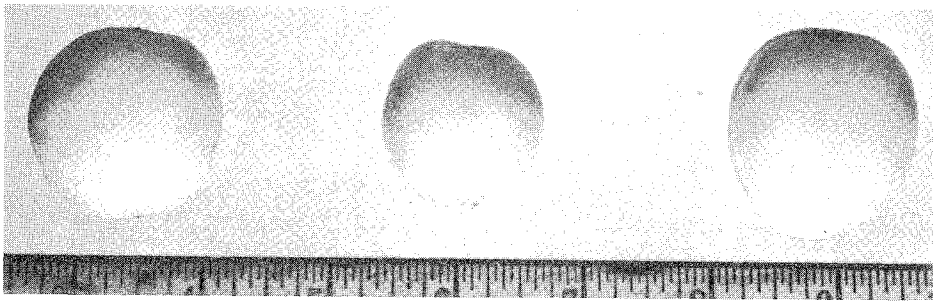


Fig. 8. Left: Minnesota No. 46. Center: Minnesota No. 47. Right: Minnesota No. 50.

blooms early May; ripens late July to early August
Fruit (figure 8):
Size: 1⅛ x 1 3/16 inches
Form: compressed
Apex: round
Cavity: small
Suture: very shallow
Stem: sessile
Skin: medium dark orange, attractive, moderately pubescent, thin, tough
Flesh: medium dark orange, firm, tender, fibrous, moderately juicy
Flavor: sweet
Quality: very good
Stone: ¾ x 11/16 inch, roundish, oval, free; has bitter pit

MINNESOTA NO. 50

Parentage: Superb x Manchu
Origin: University of Minnesota, selected in 1949
Tree: vigorous, strong, productive; has poor fruit adherence; shows trace of scab in some years; blooms early May; ripens early August
Fruit (figure 8):
Size: 1½ x 1½ inches
Form: round
Apex: oblique
Cavity: small
Suture: a line
Stem: sessile
Skin: medium apricot yellow, lightly pubescent, moderately tough
Flesh: attractive, bright, medium apricot yellow, tender, dry
Flavor: bland but mild and sweet in some years
Quality: good
Stone: large, 1 x ⅞ inch, roundish, oval, slightly oblique; has bitter pit

MINNESOTA NO. 56

Parentage: Superb x Manchu
Origin: University of Minnesota, selected in 1950
Tree: very hardy, consistently productive, susceptible to scab; has good to excellent fruit adherence; cracks considerably; blooms early May; ripens late July
Fruit (figure 9):
Size: 1½ x 1 5/16 inches
Form: roundish
Apex: roundish to slightly flat
Cavity: small
Suture: narrow, shallow, distinct, a line
Stem: sessile
Skin: yellowish orange, moderately pubescent, moderately thick
Flesh: medium to dark orange, firm, tender, moderately to slightly dry
Flavor: sweet
Quality: very good
Stone: 1 3/16 x 11/16 inch, broad, oval, free; has bitter pit

MINNESOTA NO. 58

Parentage: Superb x Manchu
Origin: University of Minnesota, selected in 1950
Tree: vigorous, very hardy, productive, susceptible to scab; blooms mid-May; ripens late July and early August; shows frost injury of flower buds in some years
Fruit (figure 9):
Size: 1 5/16 x 1 3/16 inches
Form: oval, compressed
Apex: round with medium pistil point
Cavity: medium
Suture: shallow
Stem: sessile
Skin: light apricot yellow, moderately to heavily pubescent, thick, moderately tough

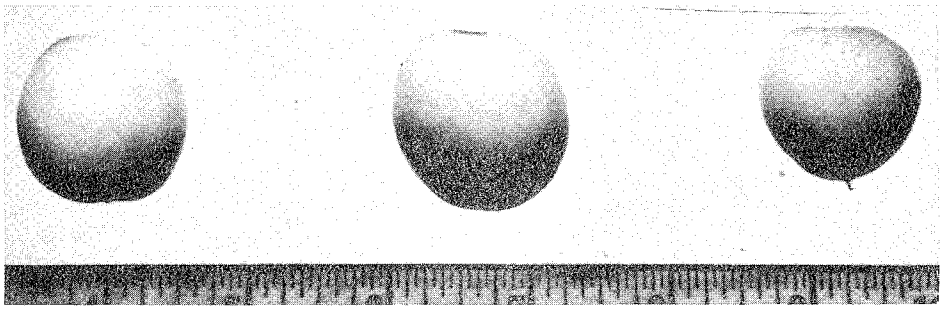


Fig. 9. Left: Minnesota No. 56. Center: Minnesota No. 58. Right: Minnesota No. 60.

Flesh: light apricot yellow, tender, firm, meaty, moderately juicy
Flavor: mild, sweet
Quality: very good
Stone: 5/8 x 11/16 inch, oval, free; has bitter pit

MINNESOTA NO. 60

Parentage: Manchurian apricot
Origin: selected from seed obtained from Frank L. Skinner, Dropmore, Manitoba, Canada
Tree: vigorous, large leaved; has very attractive bloom; has hardy branch and fruit buds; ripens mid-August
Fruit (figure 9):
Size: 1 5/16 x 1 5/16 inches
Form: roundish, conic
Apex: round with prominent pistil point
Cavity: wide, shallow
Suture: shallow
Stem: sessile
Skin: greenish yellow with heavy red blush, very finely pubescent, thin, tender
Flesh: light yellow, rather dry
Flavor: mild
Stone: 7/8 x 5/8 inch, long, conic, plump, free

MINNESOTA NO. 418

Parentage: (Zumbra x Compass) x Superb apricot
Origin: University of Minnesota, selected in 1945
Tree: vigorous; shows both sandcherry and apricot characters; has buds that are not quite hardy; had some wood killing in test winters; blooms late April; ripens early August
Fruit (figure 10):
Size: 1 7/8 x 1 7/8 inches
Form: oval
Apex: pointed

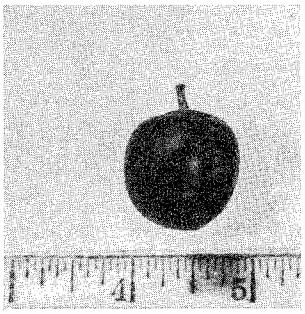


Fig. 10. Minnesota No. 418.

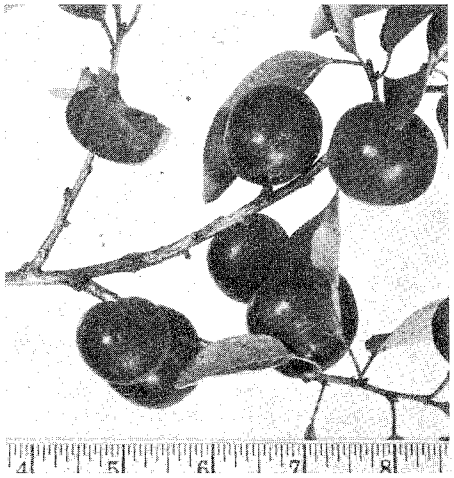


Fig. 11. Minnesota No. 419.

Cavity: wide, shallow
Suture: narrow, moderately deep
Stem: short, moderately thick
Skin: purple, finely pubescent, moderately thick
Flesh: yellow, stringy, moderately juicy
Flavor: sweet, good
Quality: good
Stone: 5/8 x 1/2 inch, oblong, plump, cling

MINNESOTA NO. 419

Parentage: (Zumbra x Compass) x Superb apricot
Origin: University of Minnesota, selected in 1945
Tree: low, spreading, vigorous, not highly productive; has nonhardy buds; blooms late April; ripens early August; shows both sandcherry and apricot characters
Fruit (figure 11):
Size: 1 1/4 x 1 1/8 inches
Form: oval with unequal halves
Apex: round with slight point
Cavity: narrow, moderately deep
Suture: deep, continuous; extends beyond cavity
Stem: short, thick
Skin: dark purple, dull, very finely pubescent, moderately thick, rather tough
Flesh: yellow, tender, soft, moderately juicy
Flavor: slightly acid, pleasant with an acid skin
Quality: fair
Stone: 11/16 x 7/16 inch, plump, long, oval, cling

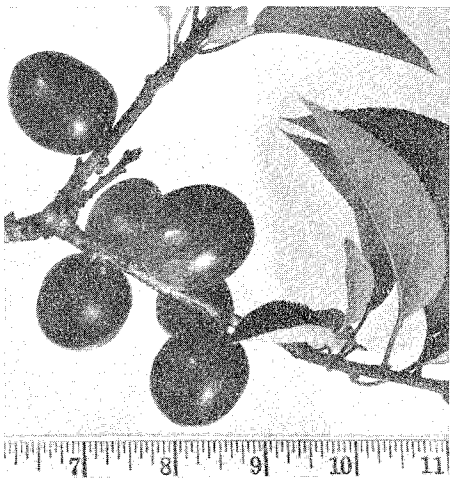


Fig. 12. Minnesota No. 421.

MINNESOTA NO. 421

Parentage: (Zumbra x Compass) x Superb apricot
Origin: University of Minnesota, selected in 1945
Tree: of medium size and vigor, moderately fruitful; shows both sandcherry and apricot characters; has good winter survival; blooms early May; ripens early August
Fruit (figure 12):
- Size: 1⅛ x ⅞ inch
- Form: long, oval
- Apex: round with slight point
- Cavity: medium
- Suture: a line to moderately deep near cavity
- Stem: short, thick
- Skin: dark rich red, finely pubescent, moderately tough
- Flesh: orange, firm, meaty, moderately juicy
- Flavor: mild, acid
- Quality: poor
- Stone: ¾ x ½ inch, plump, oval

MINNESOTA NO. 513

Parentage: St. Anthony x *Prunus dasycarpa*
Origin: University of Minnesota, selected in 1949
Tree: moderately vigorous, moderately upright, not productive; has abortive pistils; blooms early May; ripens August
Fruit:
- Size: 13/16 x 12/16 inch
- Form: roundish, conic, flattened at base
- Apex: round with point
- Cavity: small
- Suture: a line
- Stem: short, slender
- Skin: blue to reddish purple, finely pubescent, tender
- Flesh: red, moderately soft, moderately juicy
- Flavor: mildly acid, slightly apricotlike
- Quality: fair
- Stone: ½ x 5/16 inch, long, oval, cling

MINNESOTA NO. 514

Parentage: St. Anthony x Van Ness apricot
Origin: University of Minnesota, selected in 1949
Tree: sparsely leaved; blooms late April; has never fruited

MINNESOTA NO. 516

Parentage: St. Anthony x Van Ness apricot
Origin: University of Minnesota, selected in 1949
Tree: not vigorous; has buds that usually winterkill; blooms late April; has never fruited

MINNESOTA NO. 517

Parentage: Compass x Van Ness apricot
Origin: University of Minnesota, selected in 1949
Tree: not vigorous; shows both sandcherry and apricot characters; has never fruited

MINNESOTA NO. 518

Parentage: Compass x Van Ness apricot
Origin: University of Minnesota, selected in 1949
Tree: hardy; fruits very sparsely; shows both sandcherry and apricot characters
Fruit:
- Size: 1 x 13/16 inch
- Form: oval with unequal halves
- Apex: round
- Cavity: narrow, shallow
- Suture: medium, continuous
- Stem: medium
- Skin: dull red on yellow, finely pubescent, tough
- Flesh: yellow orange, coarse, moderately juicy
- Flavor: fair with sour skin
- Quality: fair
- Stone: 11/16 x ½ inch, oval, cling

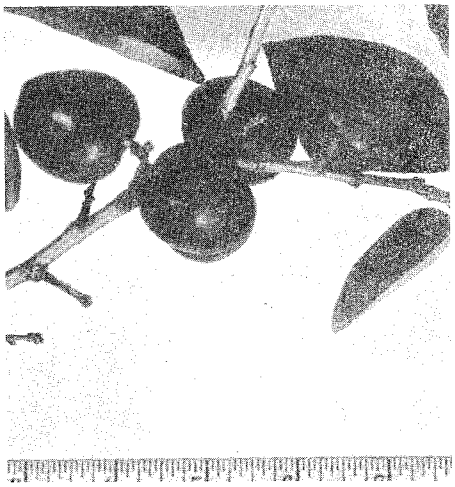


Fig. 13. Minnesota No. 519.

Fig. 14. Minnesota No. 521.

MINNESOTA NO. 519

Parentage: Compass x Van Ness apricot
Origin: University of Minnesota, selected in 1949
Tree: spreading; shows both sandcherry and apricot characters
Fruit (figure 13):
Size: 1⅛ x 1⅛ inches
Form: round
Apex: round with slight pistil point
Cavity: moderately wide, moderately deep
Suture: continuous, moderately wide, moderately deep; extends through cavity
Stem: short, thick
Skin: dark reddish purple with yellow ground, finely pubescent, moderately tough
Flesh: yellow but pink around pit, soft, coarse, juicy
Flavor: poor with acid skin
Quality: poor
Stone: ¾ x ½ inch, large, oval, cling

MINNESOTA NO. 521

Parentage: St. Anthony x *Prunus dasycarpa*
Origin: University of Minnesota, selected in 1949
Tree: vigorous, upright, spreading; fruits sparsely; blooms early May, ripens mid-August
Fruit (figure 14):
Size: ¾ x ¾ inch
Form: cordate
Apex: round with point
Cavity: small
Suture: a line
Stem: long, slender
Skin: reddish purple with light bloom, not pubescent, moderately thick, rather tough
Flesh: light red, moderately firm, slightly stringy, moderately juicy
Flavor: pleasant, mild, subacid
Quality: good
Stone: 7/16 x ⅜ inch, oval, prominently ridged, semicling

MINNESOTA NO. 539

Parentage: St. Anthony x *Prunus dasycarpa*
Origin: University of Minnesota, selected in 1950
Tree: compact, bushy; fruits sparsely; blooms early May; ripens late August
Fruit:
Size: 1¼ x 1⅜ inches
Form: round
Apex: round
Cavity: moderately deep
Suture: continuous, dark, a line
Stem: medium, thin
Skin: dark reddish purple with numerous yellow dots and thin bloom, very finely pubescent, moderately tough
Flesh: reddish, soft, stringy, very juicy
Flavor: mild
Quality: fair
Stone: ⅝ x ½ inch, oval, plump, cling

Cherries And Cherry Hybrids

BATON ROUGE

Parentage: *Prunus tomentosa* hybrid, probably with *P. besseyi*
Origin: Frank L. Skinner, Dropmore, Manitoba, Canada
Tree: fruits very sparsely; ripens late August
Fruit (figure 15):
Size: 11/16 x ¾ inch
Form: round with unequal halves
Apex: decidedly depressed
Cavity: small, deep
Suture: narrow, deep, continuous
Stem: short
Skin: red, very pubescent, moderately thick
Flesh: pink, crisp
Flavor: disagreeable
Quality: poor
Stone: ½ x ½ inch, plump, round, free

CORONATION (13)

Parentage: Shubianka, third generation seedling
Origin: Experiment Station, Morden, Manitoba, Canada, in 1937
Tree: hardy, upright, moderately productive; ripens mid-July
Fruit:
Size: ⅞ x ¾ inch
Form: oblong, conic with a narrow neck
Apex: protruding with pistil point
Cavity: moderately wide, shallow
Suture: faint, a line
Stem: slender, 1¼ to 1½ inches long, strongly attached to pit
Skin: dark red, glossy, tender
Flesh: yellow red, meaty, moderately juicy
Flavor: acid, pleasant
Quality: very good
Stone: large, oval, cling

DRILEA* (13)

Parentage: *Prunus tomentosa;* seedling of white variety from USDA Great Plains Field Station, Mandan, North Dakota
Origin: Experiment Station, Morden, Manitoba, Canada
Tree: spreading, droopy, open; tolerates dry conditions; blooms early May; ripens late July; had winter injury in test winters
Fruit (figure 16):
Size: ½ x ½ inch
Form: round
Apex: flat, depressed
Cavity: medium
Suture: distinct, a slight groove
Stem: short

Fig. 15. Baton Rouge.

Fig. 16. Drilea.

* Perished in our trials and is no longer growing at the University of Minnesota Fruit Breeding Farm.

Skin: bright scarlet red, very slightly pubescent, thin, tender
Flesh: red, firm, moderately juicy
Flavor: good
Quality: very good
Stone: small, oval

EILEEN

Parentage: *Prunus tomentosa* hybrid, probably with *P. besseyi*
Origin: Frank L. Skinner, Dropmore, Manitoba, Canada
Tree: low, spreading, slender, graceful, very susceptible to brown rot, hardy; has shiny gray-green leaves; blooms early May; ripens early July; fruits sparsely
Fruit (figure 17):
Size: 7/16 x ½ inch
Form: oblate, truncate
Apex: depressed with pistil point
Suture: wide, shallow
Stem: ¼ inch long, slender
Skin: black, moderately pubescent, tough

Fig. 17. Eileen.

METEOR (MINN. NO. 66) (3)

Parentage: Montmorency x Vladimir
Origin: University of Minnesota, named in 1952
Tree: strong, vigorous, upright to spreading, self-fertile, productive; ripens mid-July
Fruit (figure 18):
Size: ⅝ x ¾ inch
Form: roundish, oval
Apex: slightly depressed
Cavity: medium
Suture: faint, a line
Stem: ⅞ inch long, thick
Skin: bright red, glossy, thin, tender
Flesh: bright yellow, moderately firm, moderately juicy
Flavor: pleasant, mildly acid
Quality: good
Stone: ⅜ x 5/16 inch, small, long, oval, free

NORTHSTAR (MINN. NO. 58) (2, 7)

Parentage: English Morello x Scrbian Pie No.

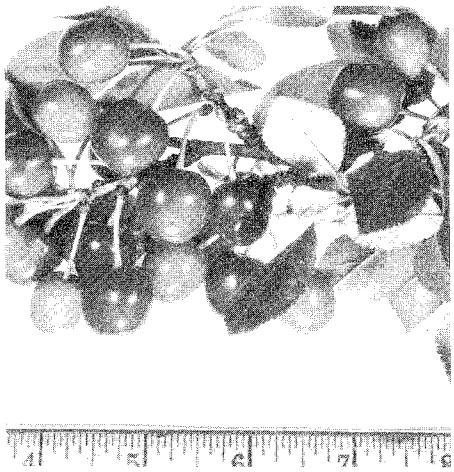


Fig. 18. Meteor (Minn. No. 66).

Fig. 19. Northstar (Minn. No. 58).

Fig. 20. Orient.

Fig. 21. Minnesota No. 20.

1; from seed of *Prunus cerasus* from Serbia
Origin: selected at University of Minnesota, named in 1950
Tree: small, very hardy in wood and fruit bud, resistant to leaf spot, self-fertile, Morello-type; ripens mid-July
Fruit (figure 19):
Size: 13/16 x ¾ inch
Form: roundish, heart-shaped
Apex: slightly depressed
Cavity: moderately deep, moderately wide
Suture: a line, slightly depressed
Stem: about 1 inch long, slender
Skin: dark, glistening, mahogany red, moderately tender
Flesh: red, meaty, tender, juicy; has red juice
Flavor: pleasant, acid
Quality: very good
Stone: ⅜ x 5/16 inch, small, roundish, oval, plump with slight ridge, nearly free

ORIENT (15)

Parentage: *Prunus tomentosa*, from a self-pollinated seedling
Origin: University of Minnesota, introduced in 1949
Tree: vigorous, self-fertile
Fruit (figure 20):
Size: 9/16 x 9/16 inch
Form: roundish, truncate
Apex: flat, depressed
Suture: distinct, a slight groove
Stem: very short, easy to pick
Skin: bright medium dark red, attractive, very slightly pubescent, moderately tough
Flesh: light red, meaty, moderately juicy but does not leak
Flavor: very good, not sour
Quality: very good
Stone: small, long, oval, free

MINNESOTA NO. 20

Parentage: *Prunus japonica*
Origin: University of Minnesota, selected in 1944
Tree: hardy; grows to 4 feet high; has slender branches; ripens mid-August
Fruit (figure 21):
Size: ¾ x ⅜ inch
Form: round, slightly conic to irregular
Apex: flat, slightly oblique
Cavity: medium
Suture: a line
Stem: ¼ inch long, moderately thick
Skin: dark red, thick, tough
Flesh: red, meaty, firm, moderately juicy
Flavor: acid, pleasant
Quality: very good
Stone: medium, oval, semicling

MINNESOTA NO. 37

Parentage: Serbian Pie No. 2 x Early Richmond
Origin: University of Minnesota, selected in 1938

Fig. 22. Minnesota No. 37.

Fig. 23. Minnesota No. 59.

Tree: small, vigorous, spreading, hardy; ripens mid-July
Fruit (figure 22):
Size: ¾ x ¾ inch
Form: nearly round, slightly oblate
Apex: round, very slightly depressed
Cavity: wide, deep
Suture: a mere line
Stem: 1½ inches long, slender
Skin: light bright red, glossy, thin, moderately tough
Flesh: yellow, tender, soft, very juicy
Flavor: mildly acid
Quality: good
Stone: ⅜ x 5/16 inch, ovate, roundish, free

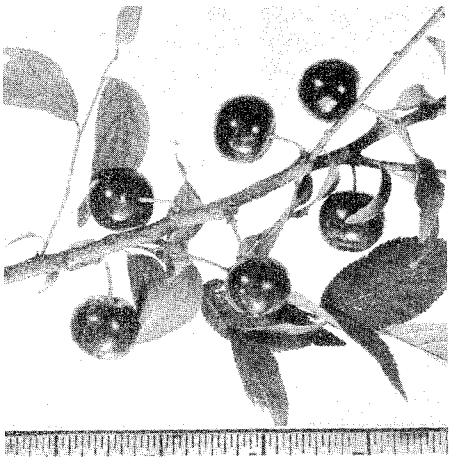


Fig. 24. Minnesota No. 60.

MINNESOTA NO. 59*

Parentage: *Prunus avium*
Origin: University of Minnesota, selected in 1944; from seed obtained from Norway via Lake City Nurseries, Lake City
Tree: has potential value for root stock and breeding for hardiness
Fruit (figure 23):
Size: small
Form: cordate
Apex: slightly depressed
Cavity: wide, shallow
Suture: shallow, broad
Stem: moderately long
Skin: red, bright
Flavor: sweet
Quality: low

MINNESOTA NO. 60

Parentage: *Prunus japonica*
Origin: University of Minnesota, selected in 1944

* Perished in our trials and is no longer growing at the University of Minnesota Fruit Breeding Farm. Several seedlings and selections descended from the seedlings of No. 59 and other selections have proved quite hardy and are thriving at the Fruit Breeding Farm, Excelsior.

Tree: spreading, hardy; has slender stems and shiny leaves; grows to 4 feet
Fruit (figure 24):
Size: ½ x ⅜ inch
Form: oblate
Apex: flat
Cavity: medium, wide
Suture: a line or missing
Stem: long, moderately thick
Skin: dark mahogany red, thick, tough
Flesh: dark red, meaty, firm, moderately juicy
Flavor: sweet, pleasant, acid
Quality: very good
Stone: ⅜ x ¼ inch, round, slightly flattened, free

MINNESOTA NO. 71

Parentage: *Prunus japonica* x Tom Thumb
Origin: University of Minnesota, selected in 1947
Tree: upright, spreading, willowy; grows to 3 feet; has leaves with slight browning on margin that sometimes extends to midrib; may have value for breeding
Fruit (figure 25):
Size: small
Form: oblate
Apex: slightly depressed
Cavity: small, shallow
Suture: narrow, continuous
Stem: ⅜ inch long
Skin: black, tender
Flesh: red, firm, moderately juicy
Flavor: mild
Quality: fair
Stone: ⅝ x ½ inch, oval, plump

MINNESOTA NO. 81*

Parentage: *Prunus cerasus* (English Morello) x *P. pennsylvanica* (Pin Cherry)
Origin: University of Minnesota, selected in 1948
Tree: possibly a triploid, spreading, upright to 30 feet high, hardy; attractive in bloom; blooms mid-May; has fruited only once and only sparsely; has small fruits

MINNESOTA NO. 101

Parentage: *Prunus japonica* x *P. besseyi*
Origin: University of Minnesota, selected in 1939
Tree: 4-5 feet high, spreading; may have merit for breeding; fruits rather sparsely; ripens early August
Fruit:
Size: small
Form: round
Apex: round with slight depression
Cavity: medium
Suture: none
Skin: very dark red, very tough

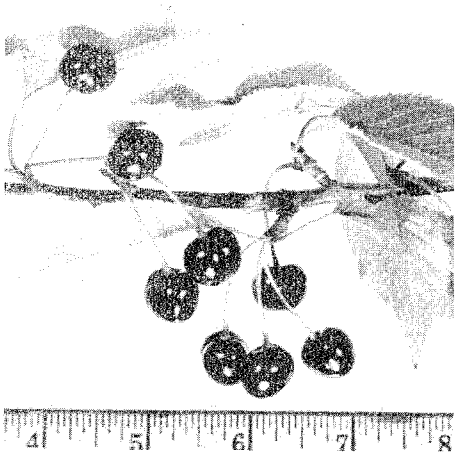


Fig. 25. Minnesota No. 71.

Fig. 26. Minnesota Cherry No. 4840.

* Perished in our trials and is no longer growing at the University of Minnesota Fruit Breeding Farm.

Flesh: red, watery, very juicy
Flavor: bitter
Quality: very poor
Stone: 3/8 x 5/16 inch, small, nearly free

MINNESOTA CHERRY NO. 4840

Parentage: *Prunus serotina* (open-pollinated)
Origin: selected from native trees near Grand Rapids, Minnesota
Tree: vigorous, hardy; blooms late May; ripens early August
Fruit (figure 26):
Size: 3/8 x 5/16 inch
Form: small, round
Apex: slightly depressed to round
Cavity: wide, very shallow
Suture: narrow, continuous
Stem: 1/8 to 5/16 inch; calyx adheres to stem
Skin: black, glossy, moderately tough
Flesh: yellow, moderately soft, moderately juicy
Flavor: bitter, astringent
Quality: poor
Stone: 1/4 x 1/4 inch, round, plump, fairly free

Peaches And Peach Hybrids

MANITOU (5)

Parentage: Siberian Almond *(Prunus tenella)* x Bokhara peach *(P. persica)*
Origin: University of Minnesota, named in 1923
Tree (figure 27): an attractive ornamental shrub, upright, rounded; grows 4-8 feet high; has pink flowers that contain a single ovary with styles varying in size from normal to minute that are apparently defective; pollen scarce; has never fruited

Fig. 27. Manitou.

MINNESOTA ACCESSION N4361

Parentage: Siberian Almond *(Prunus tenella)* hybrid
Origin: Experiment Station, Morden Manitoba, Canada; received by University of Minnesota in 1943
Tree: tall, rounded, bushy, hardy, attractive; blooms early May; often has flower buds killed by late spring frosts; has flowers resembling Manitou; has never fruited

MINNESOTA ACCESSION N4368

Parentage: Manitou x Gold
Origin: Experiment Station, Morden, Manitoba, Canada; received for trial by University of Minnesota in 1943
Tree: low, spreading; has never fruited; resembles Manitou

MINNESOTA ACCESSION N4370*

Parentage: Manitou x Quetta nectarine *(Prunus persica)*
Origin: Experiment Station, Morden, Manitoba, Canada; received for trial by University of Minnesota in 1943
Tree: has never fruited

Fig. 28. Minnesota Accession N33169.

MINNESOTA ACCESSION N33169*

Parentage: *Prunus domestica* x *P. persica*
Source: received by University of Minnesota as U.S. Plant Introduction 78519 in 1933; obtained by USDA from Rome in 1929
Tree: spreading like peach, vigorous, subject to severe winter injury; has foliage resembling plum (see figure 28); has heavy leaf spot disease; has white flowers that open in early May and are short pedicelled with a single long style; has fruited only once, sparingly, in 14 years
Fruit:
Size: intermediate between plum and peach
Skin: dull red over yellow ground, finely pubescent, tender

* Perished in our trials and is no longer growing at the University of Minnesota Fruit Breeding Farm.

Fig. 29. Minnesota Accession N48139.

Fig. 30. Minnesota No. 332-1.

Flesh: thick, meaty, soft, rather dry
Stone: smooth, flat, cling

MINNESOTA ACCESSION N48139*

Parentage: selected out of *Prunus davidiana*, tree No. 2, at the Horticulture Field Station, Cheyenne, Wyoming; received by University of Minnesota in 1948
Tree: tall, very spreading; blooms early May; ripens early August; has flower buds usually killed by late spring frosts; has light leaf spot in some years
Fruit (figure 29):
Size: 1 3/16 x 1 3/16 inches
Form: round
Apex: moderately depressed with pistil point
Cavity: moderately shallow
Suture: moderately deep, continuous
Stem: short
Skin: yellowish green, finely pubescent
Flesh: thin, white; has dry crisp texture
Flavor: bitter
Stone: 1 3/16 x 1 3/16 inches, oval, plump, dark brown, sculptured, bitter, free

MINNESOTA ACCESSION N48140

Parentage: selected out of *Prunus davidiana*, tree No. 3, at the Horticulture Field Station, Cheyenne, Wyoming; received by the University of Minnesota in 1948
Tree: tall, spreading, moderately hardy; blooms early May; ripens early August; has flower buds usually killed by late spring frosts; has medium leaf spot in some years
Fruit:
Size: 1 1/16 x 1 3/16 inches
Form: oval
Apex: round with pistil point
Cavity: narrow, shallow
Suture: medium
Stem: short
Skin: light yellow, finely pubescent
Flesh: white, hard, 1/16 inch thick, dry; has crisp texture
Flavor: bitter
Stone: 1 x 1 3/16 inches, oval, plump, dark brown, sculptured, bitter, free; has white meat

MINNESOTA NO. 332-1*

Parentage: Assiniboine plum x *Prunus persica*
Tree: tall, spreading; has leaves intermediate between plum and peach in appearance (see figure 30); has flower buds that have never opened; shows considerable twig and trunk injury following some winters

MINNESOTA NO. 335-1*

Parentage: Assiniboine plum x *Prunus persica*
Tree: upright, spreading; has foliage intermediate between peach and plum in appear-

* Perished in our trials and is no longer growing at the University of Minnesota Fruit Breeding Farm.

ance (see figure 31); forms flower buds with single styles but buds are usually winterkilled; has never fruited

MINNESOTA NO. 335-2*

Parentage: Assiniboine plum x *Prunus persica*
Tree: low, spreading; has foliage that resembles plum more than peach (see figure 32); has pink flowers, sessile, with minute abortive styles; has flower buds that are severely injured in some winters; has never fruited but pollen is present

MINNESOTA NO. 3080

Parentage: Assiniboine plum x South Haven peach
Several selections of an F_1 population of the above cross have been designated as

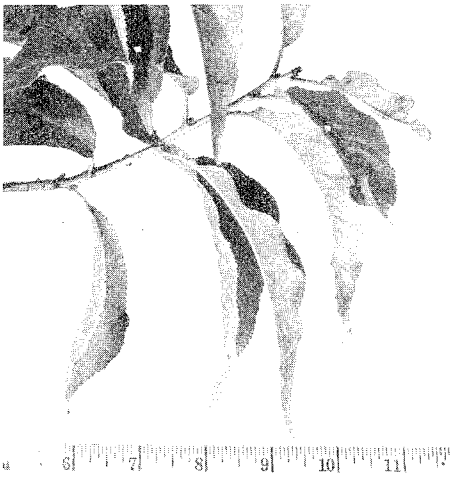


Fig. 31. Minnesota No. 335-1.

Fig. 33. Minnesota No. 3080-1.

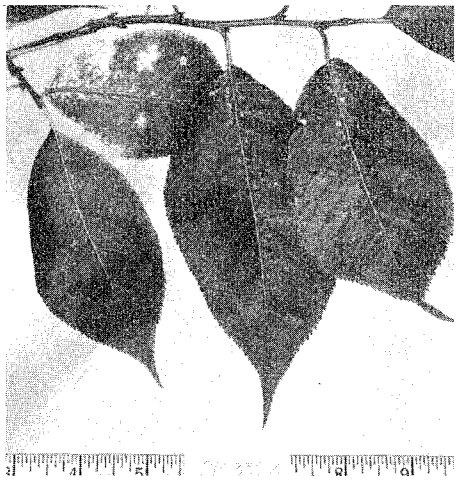


Fig. 32. Minnesota No. 335-2.

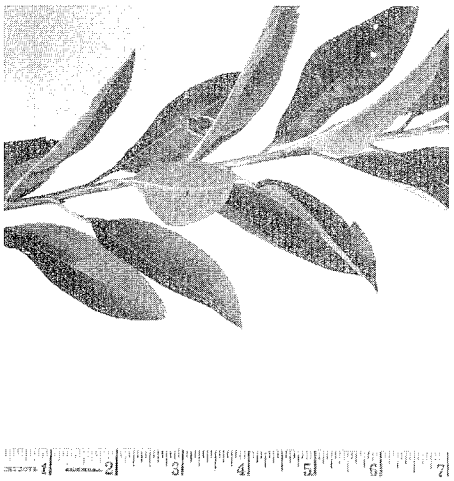


Fig. 34. Minnesota No. 3712-2.

* Perished in our trials and is no longer growing at the University of Minnesota Fruit Breeding Farm.

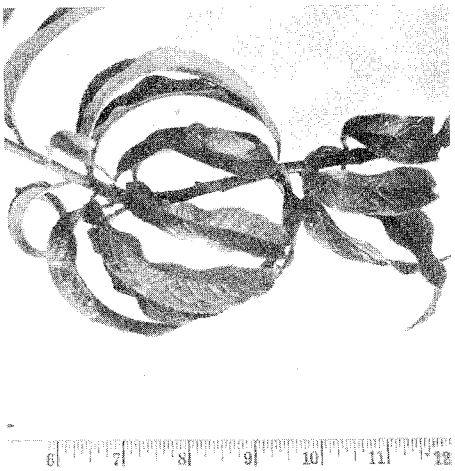


Fig. 35. Minnesota No. 31221-11.

follows: Pm 3080-1, -3, -5, -8, -9, -10, -12, -24, -25. Figure 33 is representative of these selections.

Tree: tall, spreading, vigorous; has flower and branch buds frequently injured by winter effects; shows wood injury when winter conditions are severe; has pistillate flowers, often with 10-15 pistils that are apetalous and astaminous; has never fruited

MINNESOTA NO. 3712-2

Parentage: *Prunus besseyi* x South Haven peach

Tree: low, spreading, bushlike; has foliage much like *P. besseyi* (see figure 34); has pink, nearly sessile flowers, produced singly or in pairs, that have a single style which is minute or abortive; shows considerable twig injury following some winters; has never fruited

MINNESOTA NO. 31221

Parentage: a seedling of an unknown plum x Early Elberta peach crossed with a seedling from a peach x *Prunus americana* cross. From this cross, three selections were made at the University of Minnesota and designated Minnesota No. 31221-11, -39, and -54. Figure 35 is representative of these selections.

Tree: very low, spreading, somewhat peach-like; has leaves shaped like peach; shows wood injury after severe winter weather, flower buds have not developed and probably suffer winter damage

MINNESOTA PEACH NO. 406*

Parentage: *Prunus persica* selection from Agricultural Experiment Station, Ames, Iowa, No. 18/14079 x *P. davidiana*

Origin: several F_1 hybrid seedlings were selected from this cross at the University of Minnesota in 1946

Tree: vigorous, hardy for peaches; may have value in breeding hardy peaches; has fruit buds that generally are winterkilled

Fruit: intermediate between peach and almond; has barely edible flesh that pulls away from pit as it ripens

* Perished in our trials and is no longer growing at the University of Minnesota Fruit Breeding Farm.

Plums And Plum Hybrids

ASSINIBOINE (13)

Parentage: *Prunus nigra*
Origin: South Dakota Agricultural Experiment Station, named in 1908; seedling of wild plum from Stonewall, Manitoba, Canada
Tree: a good parent in breeding for winter hardiness, upright, vigorous, productive; has good fruit adherence; showed very light winter injury in test winters; blooms early May; ripens mid-August.
Fruit (figure 36):
Size: 1¾ x 1⅝ inches
Form: oblong
Apex: round
Cavity: small
Suture: a line
Stem: ½ inch long, slender
Skin: yellow with bright red blush and light bloom, thin, astringent
Flesh: yellow, soft, very juicy
Flavor: moderately sweet
Quality: good
Stone: 1⅛ x ⅞ inch, flat, oval, cling

BONNE ST. ANN (11)

Parentage: *Prunus domestica*
Origin: Vermont, before 1900
Tree: hardy, productive, moderately upright, spreading, vigorous, susceptible to leaf spot and brown rot; has good fruit adherence; blooms early May; ripens late August
Fruit (figure 37):
Size: 1⅝ x 1 9/16 inches
Form: cordate with slightly unequal halves
Apex: depressed with russeted point
Cavity: moderately wide, deep
Suture: continuous, a line
Stem: ¾ inch long, moderately thick
Skin: dark red to blue with medium bloom, moderately tough
Flesh: yellow, crisp, moderately juicy
Flavor: fair
Quality: fair
Stone: 1 x 11/16 inch, oblong, cling

CONVOY (7, 13)

Parentage: *Prunus besseyi* hybrid
Origin: W. G. Boughen, Valley River, Manitoba; selected from seedlings in 1941
Tree: very vigorous, very productive, very hardy, upright with very weak crotches, under restriction at Minnesota but available from originator, an excellent pollinator for cherry plums; has fruit of Compass-type but of larger and better quality
Fruit (figure 38):
Size: 1 x 1⅛ inches
Form: roundish, oblong
Apex: smooth
Cavity: moderately wide, deep
Suture: a line, slightly depressed
Stem: ¾ to 1 inch long, slender
Skin: dull cherry red with no bloom, moderately tender
Flesh: yellow, moderately firm, tender, juicy

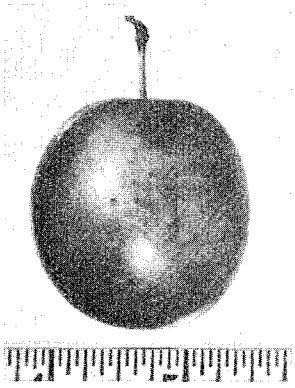


Fig. 36. Assiniboine.

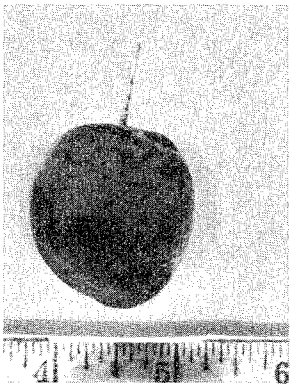


Fig. 37. Bonne St. Ann.

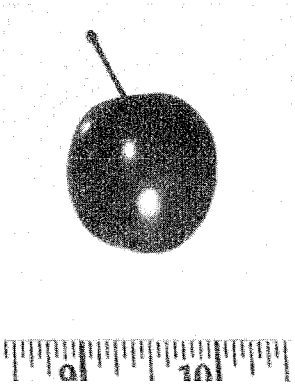


Fig. 38. Convoy.

Flavor: nearly sweet
Quality: good
Stone: ¾ x ½ inch with no wing, smooth, cling

CRITTENDEN (11)

Parentage: *Prunus insititia*
Origin: James Crittenden, East Farleigh, Kent, England, before 1900
Tree: medium sized, upright, spreading, susceptible to leaf spot, generally winter hardy; has good scaffold branching; has good fruit adherence; blooms early May; ripens mid-September
Fruit:
Size: ⅞ x ¾ inch
Form: oval, necked
Apex: slightly depressed
Cavity: almost flush
Suture: wide, shallow
Stem: ⅜ inch long, moderately thick
Skin: purplish black with heavy bloom
Flesh: greenish yellow, firm, tender, moderately juicy
Flavor: sour
Quality: fair
Stone: ⅜ x ⅝ inch, oval, cling

DEEP PURPLE (MINN. NO. 440) (6)

Parentage: Sioux sandcherry x Elephant Heart plum
Origin: University of Minnesota, selected in 1947, named in 1965

Fig. 39. Deep Purple (Minn. No. 440).

Tree: widely spreading, vigorous, shrublike, hardy, very productive; bears annually
Fruit (figure 39):
Size: 1⅜ x 1 3/16 inches
Form: round, conic
Apex: pronouncely pointed
Cavity: very small
Suture: faint, a line
Stem: moderately long, moderately thick
Skin: dull dark purple, thin, tender
Flesh: meaty, moderately juicy
Flavor: not pronounced, pleasant, sweet
Quality: fair
Stone: small, nearly free

DIETZ

Parentage: *Prunus domestica*
Origin: C. Edwin Swenson, St. Peter, Minnesota
Tree: vigorous, upright, spreading, productive; has small leaves; has good fruit adherence; shows severe winter injury in some years; blooms early May; ripens mid-September
Fruit (figure 40):
Size: 1 x ¾ inch
Form: oval with slightly compressed suture side and back
Apex: slightly depressed
Cavity: small, shallow, almost flush
Suture: continuous, a line
Stem: ½ inch long, slender
Skin: blue with heavy bloom, tough
Flesh: yellow, dry to moderately juicy; has crisp texture
Flavor: good
Quality: fair
Stone: ⅝ x ⅜ inch, oblong with partial neck, almost free

ELLIOT (5, 7)

Parentage: *Prunus salicina* x *P. americana*
Origin: University of Minnesota, introduced in 1920
Tree: medium sized, slightly drooping, hardy, productive, susceptible to leaf spot; has fair fruit adherence; blooms early May; ripens late August
Fruit (figure 41):
Size: 1⅝ x 1½ inches
Form: round, oval
Apex: round
Cavity: moderately deep
Suture: a line
Stem: 1 inch long, thick

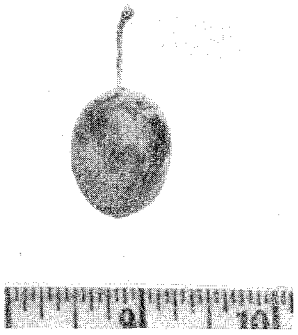


Fig. 40. Dietz.

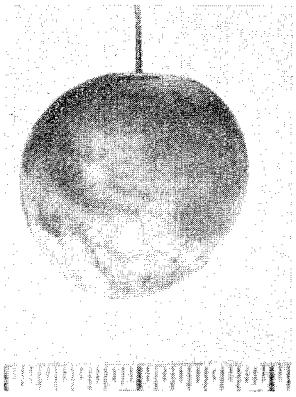


Fig. 42. Ember.

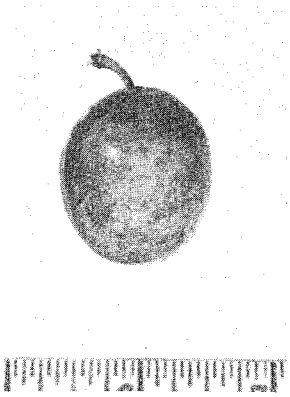


Fig. 44. Englebert.

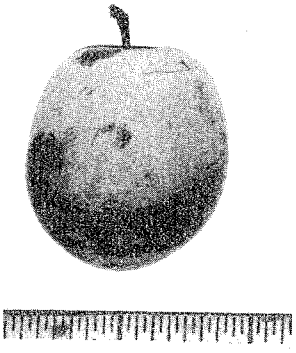


Fig. 41. Elliot.

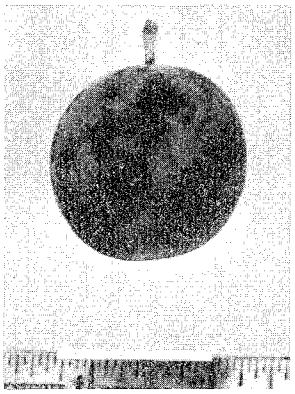


Fig. 43. Empire.

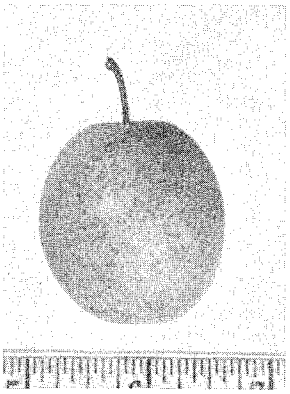


Fig. 45. Goff.

Skin: solid dark red with moderately heavy bloom, moderately thick, tough
Flesh: yellow, firm, meaty, moderately juicy
Flavor: sweet
Quality: good
Stone: 1 x 9/16 inch, long, oval, semicling

EMBER (5, 7, 15)

Parentage: Shiro x South Dakota No. 33
Origin: University of Minnesota, named in 1936
Tree: low, spreading, vigorous, hardy; has fruits that hang until after ripening and keep 2 weeks or more after harvest; blooms early May; ripens early September
Fruit (figure 42):
Size: 1¼ x 1¼ inches
Form: round, conic
Apex: slightly pointed
Cavity: small, shallow
Suture: a line
Stem: ¾ inch long, slender
Skin: yellow with red blush and medium bloom, moderately thick, tough
Flesh: rich yellow, very firm, meaty, juicy
Flavor: sweet, pleasant
Quality: very good
Stone: ¾ x ½ inch, long, oval, cling

EMPIRE (11)

Parentage: *Prunus domestica*
Origin: Ezra Rood, Cortland, New York, prior to 1890
Tree: moderately hardy; blooms early May; ripens late August
Fruit (figure 43):
Size: 1⅜ x 1½ inches

Form: cordate with unequal halves, compressed on suture and back side
Apex: slightly depressed
Cavity: moderately wide, deep
Suture: shallow
Stem: ½ inch long, moderately thick
Skin: dark red to purple with heavy bloom, moderately tough
Flesh: yellow, melting but crisp, dry
Flavor: sweet
Quality: good
Stone: ⅞ x ½ inch, oblong, moderately plump, almost free

ENGLEBERT (11)

Parentage: *Prunus domestica*
Origin: Belgium, about 1850
Tree: moderately vigorous, upright; kills back in severe winters; has good fruit adherence; blooms mid-May; ripens late August
Fruit (figure 44):
Size: 1⅝ x 1½ inches
Form: oval with slightly unequal halves
Apex: round
Cavity: narrow, deep
Suture: continuous, a line
Stem: moderately thick, ⅝ inch long
Skin: dark purple with light bloom, moderately tough
Flesh: yellow, stringy, moderately juicy
Flavor: very sweet
Quality: good
Stone: 1 x 9/16 inch, oblong, almost free

GOFF (11)

Parentage: *Prunus americana*
Origin: Council Bluffs, Iowa
Tree: spreading, vigorous, hardy; has good fruit adherence; blooms mid-May; ripens early September
Fruit (figure 45):
Size: 1⅝ x 1 7/16 inches
Form: oval with compressed sides
Apex: slightly depressed
Cavity: narrow, shallow
Suture: continuous, a line
Stem: ½ inch long, moderately thick
Skin: yellow with red blush and light bloom, tough
Flesh: yellow, stringy, moderately juicy
Flavor: mild
Quality: fair
Stone: 1 1/16 x ⅝ inch, oblong, free

GUEII (11)

Parentage: *Prunus domestica*
Origin: New York, about 1830
Tree: vigorous, upright, slightly spreading, quite hardy, productive, susceptible to leaf spot; has good fruit adherence; has good scaffold branches; blooms early May; ripens late August
Fruit (figure 46):
Size: 1⅝ x 1⅝ inches
Form: nearly ovate
Apex: round to slightly depressed
Cavity: wide, shallow
Suture: a line
Stem: stout, ¾ inch long
Skin: solid dark blue with heavy bloom, thin, moderately tough
Flesh: dull yellow, firm, tender, moderately juicy
Flavor: very good, slightly acid
Quality: good

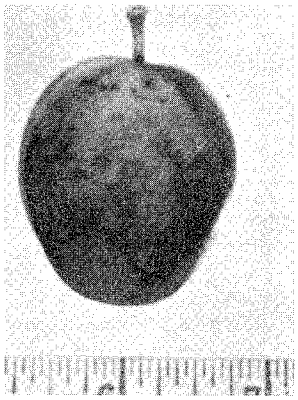


Fig. 46. Gueii.

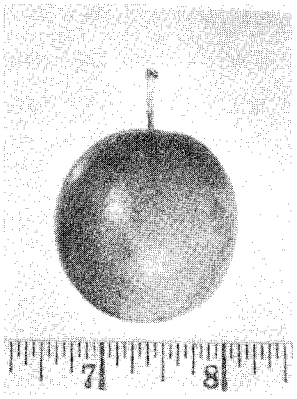


Fig. 47. Hazel.

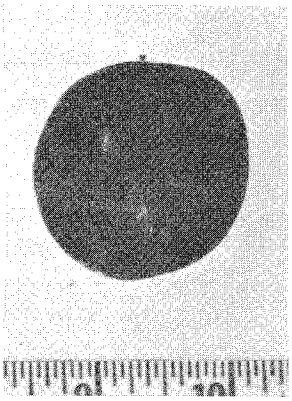


Fig. 48. Ivanovka.

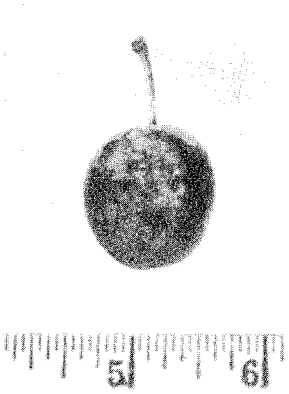


Fig. 49. Krikon.

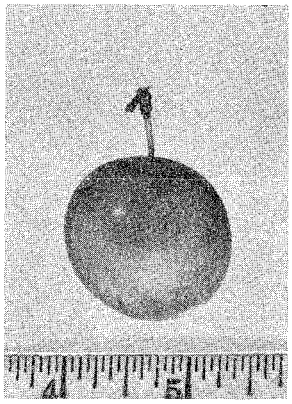


Fig. 50. LaCrescent.

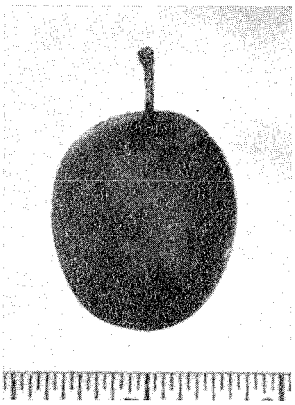


Fig. 51. Lunn.

Stone: 7/8 x 3/4 inch, ovate with wide wing, semicling but free some years

HAZEL

Parentage: *Prunus americana*
Origin: Experiment Station, Morden, Manitoba, Canada; received in 1929
Tree: vigorous, spreading, productive, hardy; has many flowers with aborted pistils in some years; has fruits that sometimes crack if rains occur during the ripening season
Fruit (figure 47):
Size: 1 9/16 x 1½ inches
Form: oval, roundish
Apex: round
Cavity: small, shallow
Suture: purple red, a line, continuous
Stem: ¾ inch long, slender
Skin: red with medium bloom, tough
Flesh: yellow orange, melting with some stringiness, moderately to very juicy
Flavor: good
Quality: good
Stone: 7/8 x ½ inch, moderately plump, oblong, red tipped, free

IVANOVKA (13)

Parentage: *Prunus salicina (P. triflora koreana)*
Origin: Manchuria; introduced by I. V. Mitchurin; received by University of Minnesota from Experiment Station, Morden, Manitoba, Canada, in 1943
Tree: upright, spreading, medium sized, moderately vigorous, hardy; blooms very early; ripens mid- to late August
Fruit (figure 48):
Size: 1½ x 1¼ inches
Form: nearly round
Apex: depressed
Cavity: deep, moderately wide
Suture: continuous, broad and deep at cavity but then a shallow line
Stem: short, thick
Skin: dull purple over greenish yellow with moderately heavy bloom, tender
Flesh: yellow orange, smooth, very juicy
Flavor: good
Quality: very good
Stone: ¾ x 11/16 inch, oblong, plump, cling

KRIKON

Parentage: *Prunus insititia*
Origin: Sweden
Tree: vigorous, upright, spreading, hardy, productive, susceptible to leaf spot; has poor fruit adherence; crosses with *P. domestica*; blooms mid-May; ripens late August
Fruit (figure 49):
Size: 1 x 5/8 inch
Form: oval
Apex: slightly depressed with russeted point
Cavity: small, almost flush
Stem: ½ inch long, slender; pulls out with connecting fiber to stone
Skin: blue with heavy bloom, moderately tough
Flesh: yellow, rather dry; has very crisp texture
Flavor: fair
Quality: fair
Stone: 5/8 x 3/8 inch, oval, cling

LACRESCENT (3, 5)

Parentage: Shiro x Howard Yellow
Origin: University of Minnesota, introduced in 1923
Tree: upright, spreading, very vigorous, hardy, productive in northern Minnesota and Manitoba but only moderately productive farther south; has fair fruit adherence; ripens mid- to late August
Fruit (figure 50):
- Size: 1½ x 1½ inches
- Form: nearly round
- Apex: round
- Cavity: very small
- Suture: a line
- Stem: moderately long, slender
- Skin: yellow with pink blush and moderately heavy bloom, thin, tender
- Flesh: yellow, tender, melting, moderately juicy
- Flavor: sweet, aromatic
- Quality: excellent
- Stone: ¾ x ½ inch, flat, oval, nearly free

LUNN (11)

Parentage: *Prunus domestica*
Origin: Quebec, Canada, about 1900
Tree: moderately upright, slightly spreading, productive, susceptible to leaf spot; has tip winter injury in some years; has good fruit adherence; blooms early May; ripens late August; rates higher than Mt. Royal because of fruit size and quality
Fruit (figure 51):
- Size: 1¾ x 1 9/16 inches
- Form: roundish, oval
- Apex: flattened, depressed
- Cavity: small, acute
- Suture: moderately deep, distinct
- Stem: short, moderately thick; adheres to fruit
- Skin: attractive blue to purple with very heavy bloom, moderately thick, moderately tough
- Flesh: yellow, meaty, tender, very juicy
- Flavor: sweet, very pleasant
- Quality: very good
- Stone: 13/16 x 11/16 inch, oval, oblique, free

MANDARIN (13)

Parentage: *Prunus salicina (P. triflora koreana)*, open-pollinated
Origin: Frank L. Skinner, Dropmore, Manitoba, Canada; named in 1941
Tree: low, sparsely branched, bushlike, hardy, not productive; blooms early May; ripens early August
Fruit (figure 52):
- Size: 1 x 1⅛ inches
- Form: round, truncate
- Apex: depressed, occasionally lipped opposite suture side
- Cavity: narrow, deep
- Suture: deep, wide, continuous; dips just before apex
- Stem: ½ inch long, thick
- Skin: reddish purple with yellow spots and medium bloom, tough
- Flesh: yellow, smooth, juicy
- Flavor: good
- Quality: very good
- Stone: ¾ x 9/16 inch, oval, plump, cling

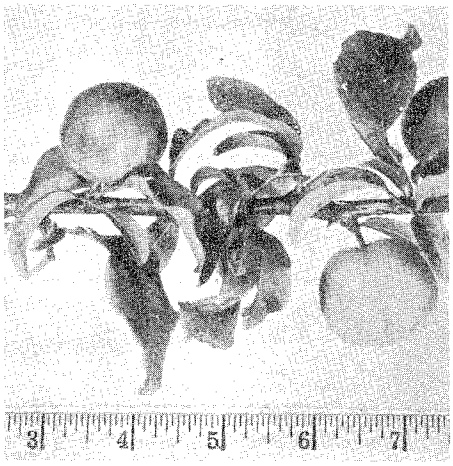


Fig. 52. Mandarin.

MANOR (13)

Parentage: seedling of Sapa, open-pollinated
Origin: Experiment Station, Morden, Manitoba, Canada; introduced in 1945
Tree: about 8 feet tall, more upright than Sapa, very productive; has good fruit adherence; blooms early May; ripens early August
Fruit (figure 53):
- Size: 1⅛ x 1⅛ inches
- Form: roundish
- Apex: flattened, slightly depressed
- Cavity: medium, compressed
- Suture: faint, a line
- Stem: ⅜ inch long, moderately thick
- Skin: dull, dark reddish purple without or with very light bloom, moderately tough

Flesh: deep red to dark purple, tender, meaty, moderately juicy
Flavor: good with slightly bitter skin
Quality: very good
Stone: 5/8 x 7/16 inch, medium, ovate, plump, nearly free

MENDOTA (5)

Parentage: Burbank x Wolf
Origin: University of Minnesota, introduced in 1924
Tree: moderately vigorous, medium sized, hardy, productive, susceptible to leaf spot; has fair fruit adherence; blooms mid-May; ripens late August to early September
Fruit (figure 54):
Size: 2 x 1 5/8 inches
Form: oblique, oval
Apex: round
Cavity: shallow, narrow
Suture: distinct, shallow
Stem: 1/2 inch long, moderately thick
Skin: bright red with light bloom, attractive, thick, tough
Flesh: light yellow, firm, meaty, tender, moderately juicy
Flavor: mild, sweet, pleasant
Quality: good
Stone: 1 1/4 x 11/16 inch, oval, flattened, nearly free

MILLER SUPERB (11)

Parentage: *Prunus domestica*
Origin: New York, before 1890
Tree: sturdy, moderately upright, not hardy in bud or wood, fairly productive in favorable seasons, susceptible to brown rot and leaf spot; has good fruit adherence; blooms early May; ripens early September; ripens unevenly
Fruit (figure 55):
Size: 1 1/2 x 1 1/4 inches
Form: roundish, oval with unequal halves
Apex: round
Cavity: small, moderately deep
Suture: yellow, a line, continuous
Stem: 1 inch long, slender
Skin: yellow green with moderately heavy bloom, tender
Flesh: yellow, melting, moderately juicy
Flavor: mild, good
Quality: good
Stone: 1 x 5/8 inch, moderately plump, cling

MINNESOTA PURPLE*

Parentage: Omaha x *Prunus cerasifera Pissardi*
Origin: University of Minnesota, selected in 1920
Tree: small, spreading, bushy; has purple foliage; showed winter injury in test winters; blooms early May; ripens early August
Fruit:
Size: 3/4 x 3/4 inch
Form: roundish
Apex: flattened
Cavity: small, flaring
Suture: faint, a line
Stem: 5/8 inch long, very slender

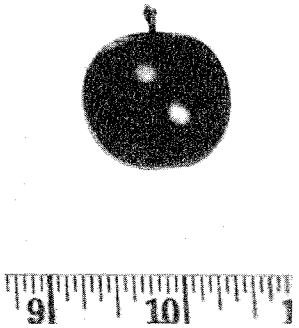


Fig. 53. Manor.

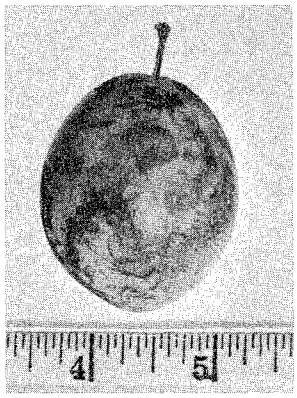


Fig. 54. Mendota.

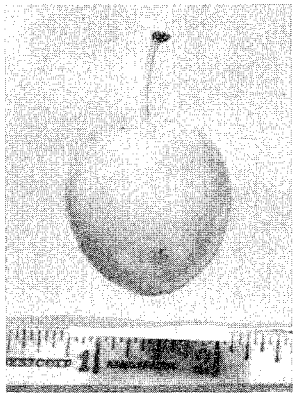


Fig. 55. Miller Superb.

* Perished in our trials and is no longer growing at the University of Minnesota Fruit Breeding Farm.

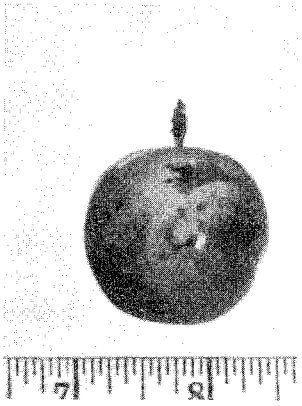


Fig. 56. Mount Royal.

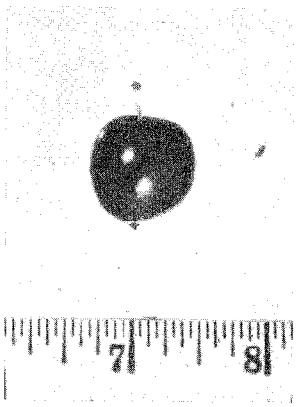


Fig. 57. Nicollet.

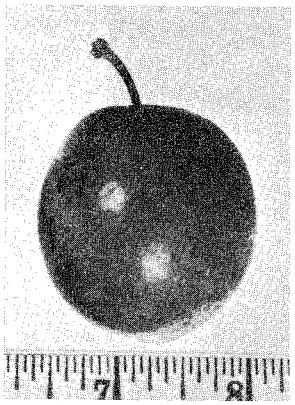


Fig. 58. Pipestone.

Skin: purplish black with very thin bloom, thin, tender
Flesh: purplish black, tender, moderately juicy
Flavor: sour
Quality: poor
Stone: ½ inch, ovate, cling

MOUNT ROYAL (11, 15)

Parentage: *Prunus domestica*
Origin: Quebec, Canada, about 1900
Tree: medium sized, upright, open spreading, susceptible to leaf spot, productive, one of hardiest and most reliable of *P. domestica* plums; had some winterkilling in test winters; has good fruit adherence; blooms early May; ripens early September
Fruit (figure 56):
Size: 1½ x 1½ inches
Form: round
Apex: russeted, depressed with small pistil point
Cavity: small, deep
Suture: continuous, furrowed at cavity end
Stem: moderately short
Skin: blue with heavy bloom, tender
Flesh: orange yellow, melting, moderately juicy
Flavor: excellent
Quality: very good
Stone: 11/16 x 10/16 inch, round, indented, almost free

NEWPORT (5)

Parentage: Omaha x *Prunus cerasifera Pissardi*
Origin: University of Minnesota, introduced in 1923
Tree: narrow, upright to 15 feet, fairly hardy, planted widely as an ornamental shrub, of no value for fruit; has purplish-red on bronze foliage
Fruit:
Size: 1¼ x 1¼ inches
Form: roundish, ovate
Apex: round
Cavity: rather large, flaring
Suture: a line, shallow
Stem: long, very slender
Skin: magenta red with light bloom, thin, moderately tough
Flesh: yellow with tinge of pink, watery, tender
Flavor: sour, slightly bitter
Quality: very poor
Stone: medium, oval, smooth, red, semi-cling

NICOLLET* (5)

Parentage: uncertain, probably a *Prunus besseyi* hybrid
Origin: University of Minnesota, introduced in 1924
Tree: small, bushlike, moderately productive; resembles sandcherry; showed winter injury in test winters; ripens early August
Fruit (figure 57):
Size: ⅞ x ⅞ inch
Form: cordate
Apex: depressed with minute pistil point
Cavity: medium, narrow, oblong
Suture: continuous, dark red, a line

* Perished in our trials and is no longer growing at the University of Minnesota Fruit Breeding Farm.

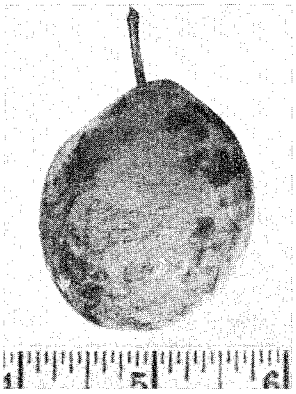


Fig. 59. Pond.

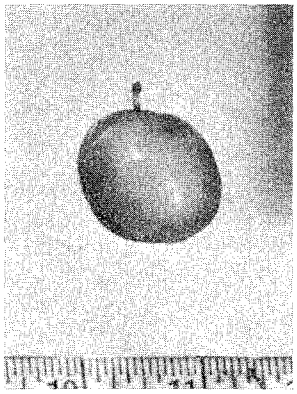


Fig. 60. Ptitsin No. 7.

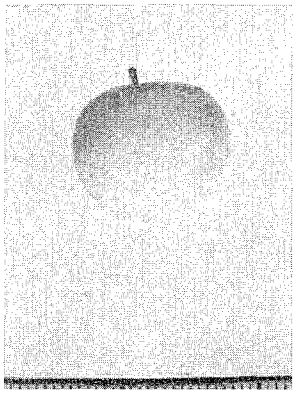


Fig. 61. Ptitsin No. 10.

Stem: ⅜ inch long, moderately thick
Skin: dark red with very light bloom, thin, tender
Flesh: greenish yellow but red near pit, very tender, melting, very juicy
Flavor: acid
Quality: fair
Stone: ⅝ x ⅜ inch, plump, oval, nearly free

PIPESTONE (5, 7)

Parentage: Burbank x (Burbank x Wolf)
Origin: University of Minnesota, introduced in 1942
Tree: upright, spreading, moderately vigorous; has fair fruit adherence; blooms early May; ripens late August
Fruit (figure 58):
Size: 1¾ x 1¾ inches
Form: cordate
Apex: broadly pointed, depressed at tip
Cavity: moderately wide, deep
Suture: definite, a line
Stem: ¾ inch long, moderately thick
Skin: solid deep red with moderately heavy bloom, moderately thin, tough, slightly astringent
Flesh: bright yellow, moderately firm to soft, melting, very juicy
Flavor: sweet, pleasant
Quality: very good
Stone: 1 x ⅝ inch, obovate, moderately plump, cling

POND (11)

Parentage: *Prunus domestica*
Origin: England, prior to 1830
Tree: upright, vigorous, willowy; shows winter injury in some years; crosses well with *P. insititia*; has moderate leaf spot and brown rot susceptibility; has good fruit adherence; blooms mid-May; ripens early September
Fruit (figure 59):
Size: 1¾ x 1½ inches
Form: oblong necked, compressed on suture and back
Apex: depressed, smooth
Cavity: narrow, deep
Suture: shallow, continuous
Stem: 1 inch long, thick
Skin: red to reddish purple with heavy bloom, tough
Flesh: yellow, crisp, dry
Flavor: fair
Quality: fair
Stone: 1 x 11/16 inch, oval, semicling

PTITSIN NO. 5*

Parentage: *Prunus salicina (P. triflora koreana)*
Origin: Experiment Station, Morden, Manitoba, Canada; received at Minnesota Fruit Breeding Farm in 1943
Tree: not winter hardy; kills back to main branches
Fruit:
Size: 1⅛ x 1 inch
Form: round, truncate
Apex: smooth
Cavity: convex, deep
Suture: wide, shallow, continuous through cavity

* Perished in our trials and is no longer growing at the University of Minnesota Fruit Breeding Farm.

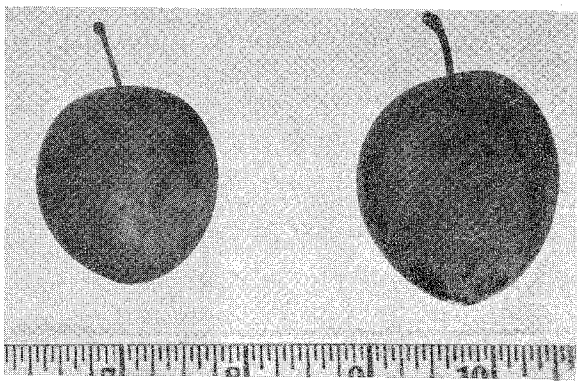


Fig. 62. Left: Radisson. Right: Redcoat.

Stem: medium
Skin: yellow green with moderately heavy bloom, tender
Flesh: yellow, smooth, very juicy
Flavor: excellent, very aromatic
Quality: excellent
Stone: ¾ x ½ inch, oblong, free

PTITSIN NO. 7*

Parentage: *Prunus salicina (P. triflora koreana)*
Origin: Experiment Station, Morden, Manitoba, Canada; received at University of Minnesota in 1945
Tree: low, spreading, moderately winter hardy, productive; has good fruit adherence; blooms early May; ripens late August
Fruit (figure 60):
Size: 1⅛ x 1⅜ inches
Form: truncate with unequal halves
Apex: depressed
Cavity: convex, wide, deep
Suture: deep and wide across cavity to form continuous line
Stem: ⅜ inch long, moderately thick
Skin: yellow green with numerous white dots and thin bloom, tender
Flesh: yellow, moderately tender, moderately juicy
Flavor: good, aromatic
Quality: good
Stone: ¾ x 11/16 inch, round, plump, cling

PTITSIN NO. 10*

Parentage: *Prunus salicina (P. triflora koreana)*
Origin: Experiment Station, Morden, Manitoba, Canada; received at University of Minnesota in 1943
Tree: not winter hardy; kills back to main branches
Fruit (figure 61):
Size: 1 x ⅞ inch
Form: round, truncate
Cavity: narrow, deep
Suture: shallow, continuous
Skin: yellow green with thin bloom, tender
Flesh: yellow, smooth, very juicy
Flavor: excellent, very aromatic
Quality: excellent
Stone: ⅝ x ½ inch, oblong, free

RADISSON (5, 7)

Parentage: *Prunus salicina* x *P. americana* (parent cultivars unknown)
Origin: University of Minnesota, introduced in 1925
Tree: moderately tall, hardy, spreading, vigorous, productive; has poor fruit adherence; blooms early May; ripens early August
Fruit (figure 62):
Size: 1¾ x 1¾ inches
Form: oval
Apex: tapering, slightly round
Cavity: deep, abrupt
Suture: shallow
Stem: ⅝ inch long, moderately thick
Skin: dark red with numerous dots and very heavy bloom, moderately thick, moderately tough
Flesh: yellow, very juicy
Flavor: sweet with sour skin
Quality: good
Stone: ¾ x ½ inch, oval, cling

* Perished in our trials and is no longer growing at the University of Minnesota Fruit Breeding Farm.

RAYNES (11)

Parentage: *Prunus domestica*
Origin: Quebec, Canada, about or before 1900
Tree: moderately upright, moderately vigorous, susceptible to leaf spot, fairly productive; has good fruit adherence; blooms early May; ripens late August
Fruit:
Size: 1½ x 1 3/16 inches
Form: oblong with slightly unequal halves, somewhat necked, slightly compressed on suture and back side
Apex: depressed
Cavity: small, shallow
Suture: continuous, a line
Stem: ½ inch long, thick
Skin: blue with heavy bloom, tender
Flesh: yellow, smooth, meaty, rather dry
Flavor: fair
Quality: fair
Stone: 1 x 9/16 inch, oblong, free

REDCOAT (5, 7)

Parentage: Burbank x Wolf
Origin: University of Minnesota, introduced in 1925
Tree: medium sized, productive; has good vigor; has very good fruit adherence; blooms early May; ripens mid-August
Fruit (figure 62):
Size: 1⅞ x 1½ inches
Form: oval
Apex: pointed
Cavity: shallow
Suture: a line to moderately deep
Stem: ⅝ inch long, slender
Skin: light crimson with heavy purplish bloom, thick, moderately tough
Flesh: light yellow, firm, tender, slightly dry
Flavor: sweet
Quality: good
Stone: 1½ inches long, oval, pointed at each end, free

RED CORTLAND (7)

Parentage: Sapa x Superior
Origin: discovered by Joseph E. Lang, Blarney Park, Michigan; introduced in 1934
Tree: spreading, not hardy, excessively productive, susceptible to brown rot; grows to 8 feet; ripens late July
Fruit (figure 63):
Size: 1½ x 1 7/16 inches
Form: irregular, oblong, oval; often has a ridge on opposite side from suture
Apex: flattened with pistil point
Cavity: very large, narrow, deep
Suture: distinct, a line
Stem: ¾ inch long
Skin: dark reddish purple with heavy bloom, moderately tough
Flesh: dark purple, firm, moderately juicy
Flavor: moderately acid
Quality: very good
Stone: cling

REDGLOW (5, 7)

Parentage: Burbank x Jewell
Origin: University of Minnesota, introduced in 1949
Tree: above average in size, hardy, vigorous, productive; normally has good foliage al-

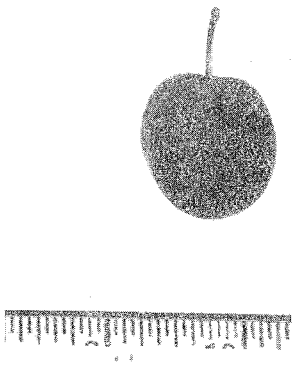


Fig. 63. Red Cortland.

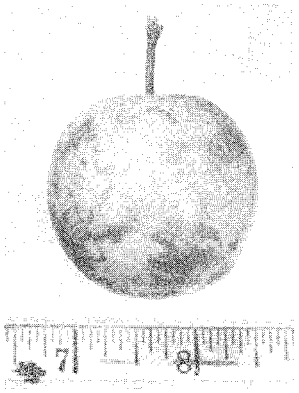


Fig. 64. Redglow.

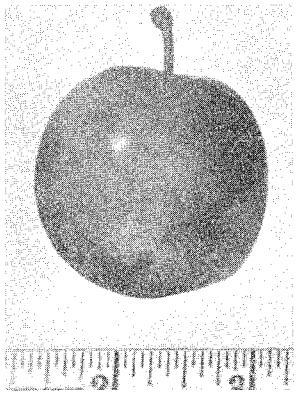


Fig. 65. Red Wing.

though susceptible to leaf spot; showed slight winter injury in test winters; has good fruit adherence; blooms mid-May; ripens late August

Fruit (figure 64):
- Size: 1½ x 1½ inches
- Form: round
- Apex: round
- Cavity: shallow, moderately wide
- Suture: continuous, a line
- Stem: ⅝ inch long, moderately thick
- Skin: dark red with heavy purple bloom, attractive, thick, tough, somewhat astringent
- Flesh: orange, firm, slightly fibrous, juicy
- Flavor: sweet
- Quality: very good
- Stone: 6/8 x ⅝ inch, round, oval, cling

RED WING (5, 7)

Parentage: Burbank x Wolf

Origin: University of Minnesota, introduced in 1920

Tree: vigorous, spreading, strong, productive, susceptible to leaf spot; has fair to good fruit adherence; ripens late August

Fruit (figure 65):
- Size: 1 11/16 x 1⅝ inches
- Form: round, oval
- Apex: round
- Cavity: narrow
- Suture: very shallow
- Stem: ⅝ inch long, moderately thick
- Skin: dark red with medium bloom, attractive, tough
- Flesh: yellow, meaty, tender, melting, moderately juicy
- Flavor: mild, sweet
- Quality: good
- Stone: 1 x ¾ inch, oval, flat, free

RUSSIAN GREEN GAGE (13)

Parentage: *Prunus domestica*

Origin: Experiment Station, Morden, Manitoba, Canada; received in 1925; probably from Russia

Tree: one of hardiest European types, upright, spreading, moderately vigorous, productive, susceptible to leaf spot; has fair to good fruit adherence; showed some winter injury in test winters; blooms mid-May; ripens early September

Fruit (figure 66):
- Size: 1¼ x 1⅜ inches
- Form: round, oblate
- Apex: slightly depressed
- Cavity: narrow, deep
- Suture: wide, deep at cavity but runs to a line
- Stem: moderately thick
- Skin: yellowish green with heavy bloom, thick, tender
- Flesh: greenish yellow, tender, meaty, moderately juicy
- Flavor: sweet
- Quality: very good
- Stone: ⅜ x ½ inch, oval, free to almost free

RUSSIAN GREEN GAGE HYBRID

Parentage: probably *Prunus domestica* x *P. insititia*

Origin: H. Rockhill, Conrad, Iowa; received in 1929

Tree: hardy for a European type, vigorous, spreading, fairly productive, susceptible to leaf spot; showed some winter injury in test winters; ripens late August

Fruit:
- Size: 1 x 1 inch
- Form: round, truncate
- Apex: depressed with russeted point
- Cavity: flush, shallow
- Suture: faint, shallow, continuous, a line
- Stem: ½ inch long, moderately thick
- Skin: dark blue with heavy bloom, moderately tough
- Flesh: green, crisp, moderately dry
- Flavor: fair
- Quality: poor to fair
- Stone: ⅜ x 7/16 inch, round, oblong, cling

SOUTH DAKOTA (5, 7)

Parentage: *Prunus americana*, possibly a hybrid

Origin: received at the University of Minnesota from the Agricultural Experiment Station, Brookings, South Dakota, in 1907; formerly called South Dakota No. 27; introduced jointly by the two stations in 1949

Tree: excellent pollinizer for most *P. salicina* x *P. americana* hybrid cultivars, very vigorous, hardy, productive; has good fruit adherence; has fruit cracks in some years; blooms early May; ripens early September

Fruit (figure 67):
- Size: 1½ x 1¼ inches
- Form: oval
- Apex: flat
- Cavity: very small
- Suture: a line
- Stem: ½ inch long, slender

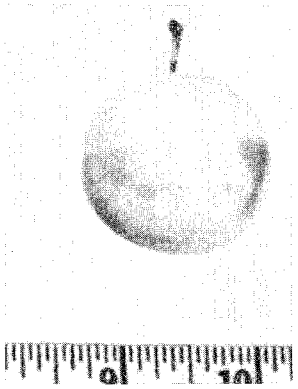


Fig. 66. Russian Green Gage.

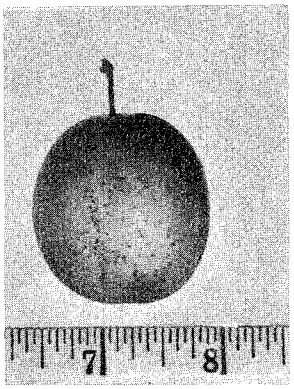


Fig. 67. South Dakota.

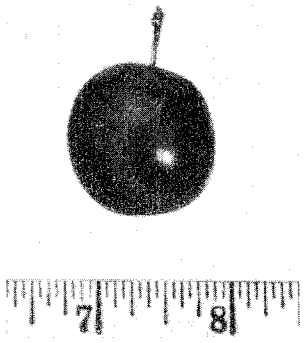


Fig. 68. St. Anthony.

Skin: bright medium red over attractive yellow with thin bloom, thin, moderately tough
Flesh: yellow, tender, meaty, juicy
Flavor: very sweet
Quality: very good
Stone: 1 x ⅜ inch, oval, nearly free

ST. ANTHONY (1, 5)

Parentage: *Prunus besseyi* x Satsuma plum
Origin: University of Minnesota, named in 1923
Tree: medium to small in size, spreading, productive; has good fruit adherence; ripens late August
Fruit (figure 68):
Size: 1⅛ x 1⅛ inches
Form: round
Apex: round
Cavity: small
Suture: a line
Stem: ¾ inch long, slender
Skin: deep purple with moderately heavy bloom, thin, tough
Flesh: very deep purple, firm, meaty, very juicy
Flavor: astringent, subacid
Quality: poor
Stone: ⅜ x ½ inch, oval, cling

SUGAR (8, 11)

Parentage: *Prunus domestica*
Origin: Luther Burbank, Santa Rosa, California
Tree: not hardy, kept as a tubbed tree
Fruit: (figure 69):
Size: 1¾ x 1½ inches
Form: roundish oblong to oblong
Apex: slightly depressed with russeted point
Cavity: shallow
Suture: shallow, continuous
Stem: 1⅛ inches long, thick
Skin: reddish purple with medium bloom, tough
Flesh: yellow, crisp, moderately juicy
Flavor: extremely sweet
Quality: good to excellent
Stone: 1 x 11/16 inch, conic, cling

SUPERIOR (5, 7)

Parentage: Burbank x Kaga
Origin: University of Minnesota, introduced in 1933
Tree: very vigorous, upright, spreading, slightly susceptible to leaf spot, productive; often overloads until thinning is required; has good foliage; has good fruit adherence; blooms early May; ripens late August
Fruit (figure 70):
Size: 1⅞ x 1⅝ inches
Form: cordate
Apex: pointed with russeted point
Cavity: moderately wide, deep
Suture: continuous, a line
Stem: 1 inch long, thick
Skin: red with medium bloom, tough
Flesh: yellow, juicy; has smooth texture
Flavor: very good, slightly tart at skin
Quality: very good
Stone: 15/16 x 9/16 inch, oblong, cling

SURPRISE (11)

Parentage: *Prunus americana* hybrid, possibly

with *P. hortulana mineri*
Origin: Martin Penning, Sleepy Eye, Minnesota; named in 1882
Tree: medium sized, vigorous, upright, spreading, productive; has good fruit adherence; blooms early May; ripens late August
Fruit (figure 71):
Size: 1½ x 1 inch
Form: oblong with unequal halves
Apex: depressed
Cavity: wide, moderately deep
Suture: continuous, red, a line
Stem: ½ inch long, thick
Skin: red with medium bloom, moderately tough
Flesh: yellow, smooth, melting, moderately juicy
Flavor: fair with slightly acid skin
Quality: fair
Stone: ⅞ x ½ inch, flat, long, oval, cling

TIORN SLADKY

Parentage: *Prunus domestica*
Origin: received from Experiment Station, Morden, Manitoba, Canada, in 1943; probably from Russia
Tree: upright, vigorous, productive, moderately susceptible to leaf spot; has good fruit adherence; had prominent winter injury in test winters; ripens early August
Fruit (figure 72):
Size: ⅞ x 1 inch
Form: roundish
Apex: depressed
Cavity: narrow, shallow, almost flush
Suture: wide, shallow
Stem: ½ inch long, moderately thick
Skin: purple to blue with heavy bloom, tender
Flesh: green, meaty, dry
Flavor: sweet

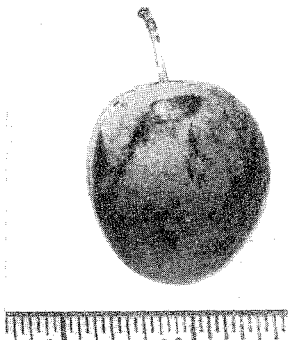


Fig. 69. Sugar.

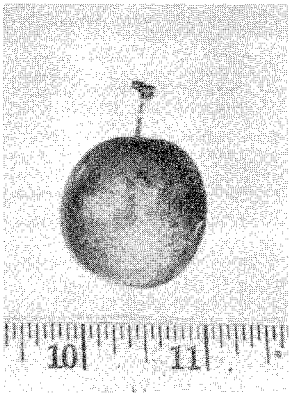


Fig. 71. Surprise.

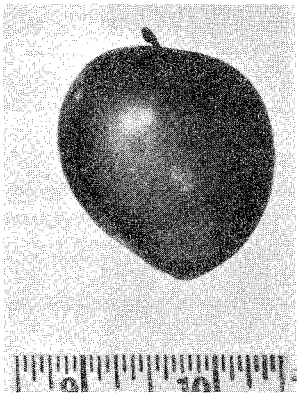


Fig. 73. Underwood.

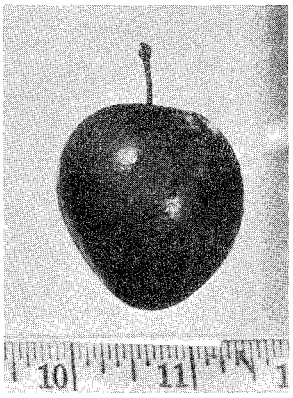


Fig. 70. Superior.

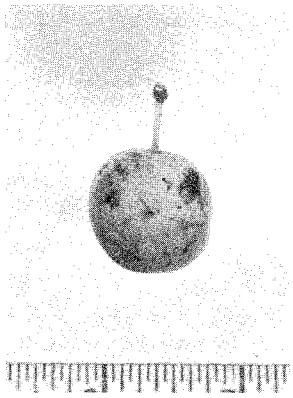


Fig. 72. Tiorn Sladky.

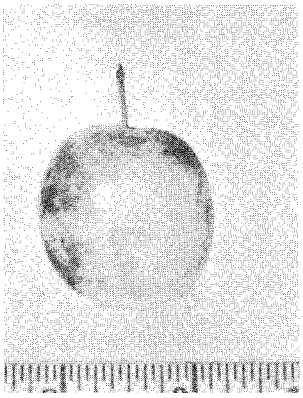


Fig. 74. Weaver.

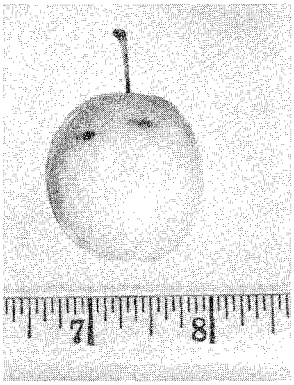


Fig. 75. Whitaker.

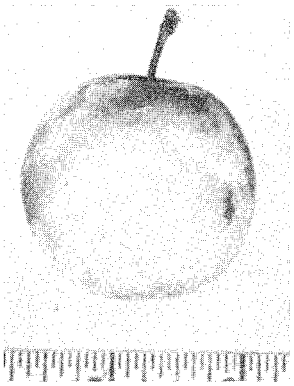


Fig. 76. Winona.

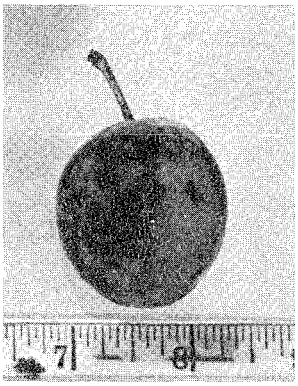


Fig. 77. Yakima.

Quality: good
Stone: 9/16 x 7/16 inch, round, cling to semicling

UNDERWOOD (5, 7)

Parentage: Shiro x Wyant
Origin: University of Minnesota, introduced in 1920
Tree: very vigorous, fairly spreading, fairly productive; has good fruit adherence; blooms early May; ripens early August
Fruit (figure 73):
Size: 1⅞ x 1½ inches
Form: cordate
Apex: pointed
Cavity: moderately deep
Suture: moderately deep
Stem: ½ inch long, slender
Skin: yellow with bright red overcolor and medium bloom, thin, tough, very attractive
Flesh: yellow, tender, melting, juicy
Flavor: sweet
Quality: good
Stone: ¾ x 9/16 inch, oval, moderately plump, cling

WEAVER (11)

Parentage: *Prunus americana*
Origin: selected from natural populations along Cedar River, Iowa, prior to 1880
Tree: vigorous, spreading, willowy, medium sized, moderately productive; has poor fruit adherence; blooms early May; ripens late August
Fruit (figure 74):
Size: 1¼ x 1⅛ inches
Form: oval with unequal halves, compressed on sides
Apex: slightly depressed with russeted point
Cavity: large, moderately deep
Suture: continuous, purple, a line
Stem: ⅝ inch long, moderately thick
Skin: yellow with overall red blush and moderately thin bloom, spotted carmine, thick, moderately tough
Flesh: yellow, crisp, moderately juicy
Flavor: fair
Quality: fair
Stone: ⅞ x 9/16 inch, moderately plump, free

WHITAKER

Parentage: *Prunus munsoniana*
Origin: Texas, before 1900
Tree: moderately vigorous, upright, hardy, moderately productive; has poor to fair fruit adherence; blooms early May; ripens late August
Fruit (figure 75):
Size: 1¼ x 1¼ inches
Form: roundish
Apex: slightly depressed with russeted point
Cavity: moderately wide, moderately deep
Suture: continuous, a line
Stem: ⅝ inch long, slender
Skin: yellow orange with heavy bloom, tough
Flesh: yellow, slightly stringy, moderately to very juicy
Flavor: good
Quality: good
Stone: ⅝ x ½ inch, oval, plump, cling

WINONA (5, 7)

Parentage: Abundance x Wolf
Origin: University of Minnesota, introduced in 1921
Tree: vigorous, hardy, productive but subject to brown rot; has poor fruit adherence; ripens early September
Fruit (figure 76):
Size: 1 3/16 x 1¼ inches
Form: roundish
Apex: round
Cavity: moderately wide, deep
Suture: a line
Stem: ⅝ inch long, moderately slender
Skin: dark red over yellow with moderately heavy bloom, moderately thick, tender
Flesh: yellow, soft, stringy, very juicy
Quality: fair
Stone: ⅝ x ½ inch, oval, plump, cling

YAKIMA (7)

Parentage: *Prunus domestica*
Origin: Theodore Suksdorf, Bingen, Washington; introduced about 1925
Tree: very upright, vigorous, a shy bearer, susceptible to leaf spot, moderately resistant to brown rot; has poor fruit adherence; showed obvious winter injury during test winters; ripens late August
Fruit (figure 77):
Size: 2 1/16 x 1⅞ inches
Form: oval to oblong
Apex: flattened, depressed
Stem: short, thick
Skin: medium red over yellow with heavy bloom, attractive, tough, moderately thick
Flesh: dark yellow, firm, moderately tough, moderately juicy
Flavor: sweet
Quality: very good
Stone: 1 1/16 x ⅝ inch, oval, free or nearly free

MINNESOTA ACCESSION N4010

Parentage: (*Prunus besseyi* or *P. besseyi* x *P. salicina* hybrid) x *P. domestica*
Origin: Experiment Station, Morden, Manitoba, Canada
Tree: upright, spreading, fairly productive, very hardy; has good fruit adherence; ripens early August
Fruit:
Size: 1⅜ x 1½ inches
Form: roundish with unequal halves
Apex: depressed
Cavity: wide, deep
Suture: continuous
Stem: ¾ inch long, moderately thick
Skin: dark purple with light bloom, of medium texture
Flesh: yellowish green, coarse, moderately juicy
Flavor: poor
Quality: fair
Stone: ⅝ x ½ inch, round, oblong, nearly free

MINNESOTA ACCESSION N4346

Parentage: Sapa x Shiro
Origin: Experiment Station, Morden, Manitoba, Canada; received by University of Minnesota in 1943
Tree: vigorous, spreading, fairly productive, hardy; has good fruit adherence; ripens mid-August
Fruit (figure 78):
Size: 1 3/16 x 1½ inches
Form: round, oblong
Apex: round
Cavity: moderately wide, deep
Suture: a line
Stem: ¾ inch long, moderately thick
Skin: dark blue with thin bloom, moderately tender
Flesh: purple, smooth, moderately juicy
Flavor: good
Quality: good
Stone: ¾ x ⅝ inch, oblong, plump, cling

MINNESOTA ACCESSION N5275*

Parentage: *Prunus simoni* x *P. salicina*

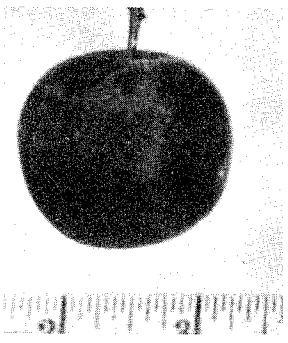


Fig. 78. Minnesota Accession N4346.

* Perished in our trials and is no longer growing at the University of Minnesota Fruit Breeding Farm.

Fig. 79. Minnesota Accession N5275.

Origin: Central Experimental Farm, Ottawa, Canada; received by University of Minnesota as 0-3010 in 1952
Tree: bushy, hardy, productive, moderately resistant to brown rot and leaf spot; has fair fruit adherence; blooms early May; ripens late August
Fruit (figure 79):
Size: 1¼ x 1⅜ inches
Form: roundish, truncate
Apex: round
Cavity: moderately wide, deep, oblong
Suture: wide, deep at cavity end, shallow at apex
Stem: ¾ inch long, slender
Skin: dark red with yellow ground and light blue bloom, tough
Flesh: yellow, coarse, very juicy
Flavor: fair
Quality: fair
Stone: ¾ x ⅝ inch, oblong, cling

MINNESOTA NO. 84

Parentage: South Dakota No. 22 x Shiro
Origin: University of Minnesota, selected in 1918
Tree: vigorous, moderately spreading, hardy, productive; has good fruit adherence; blooms early May; ripens late August
Fruit (figure 80):
Size: 1½ x 1½ inches
Form: round
Apex: slightly flattened
Cavity: very shallow
Suture: distinct, a line
Stem: ¾ inch long, slender
Skin: dark red over yellow with moderately heavy bloom, thick, tough
Flesh: orange yellow, stringy, tender, juicy
Flavor: pleasant
Quality: good
Stone: ⅞ x 11/16 inch, oval, moderately plump, cling

MINNESOTA NO. 89

Parentage: Wastesa x First
Origin: University of Minnesota, selected in 1918
Tree: vigorous, very hardy, productive; has slender willowy branches; blooms early May; ripens late August
Fruit (figure 81):
Size: 1½ x 1⅜ inches
Form: round, compressed on sides
Apex: depressed
Cavity: shallow, almost flush
Suture: continuous, a line
Stem: ⅝ inch long, moderately thick
Skin: yellow with red blush and thin bloom, moderately tough
Flesh: yellow orange, melting, moderately juicy
Flavor: good
Quality: good
Stone: 13/16 x ⅝ inch, truncate, flat, nearly free

MINNESOTA NO. 155

Parentage: Compass x Formosa
Origin: University of Minnesota, selected in 1922
Tree: erect, hardy, moderately productive, susceptible to brown rot; has good fruit adherence; ripens late August

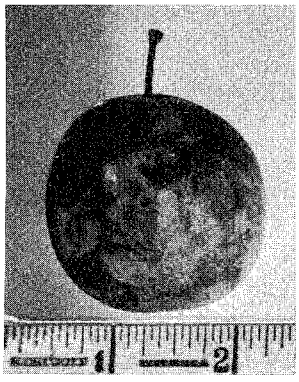


Fig. 80. Minnesota No. 84.

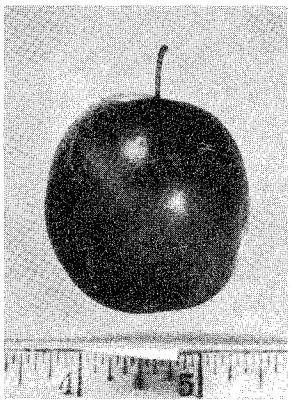


Fig. 81. Minnesota No. 89.

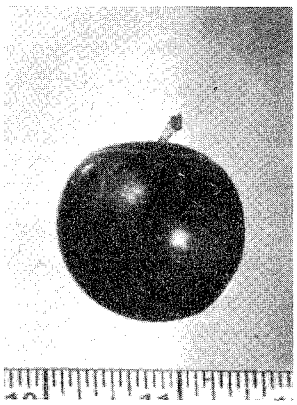


Fig. 82. Minnesota No. 155.

Fig. 83. Minnesota No. 251.

Fruit (figure 82):
- Size: ⅞ x ⅞ inch
- Form: nearly round
- Apex: flat with pistil point
- Cavity: moderately wide, moderately deep
- Suture: a line
- Stem: ½ inch long, slender
- Skin: medium red over yellow with light bloom, thick, tender
- Flesh: yellow green, crisp, meaty, moderately juicy
- Flavor: very sweet
- Quality: good
- Stone: ½ x ⅜ inch, oval, cling

MINNESOTA NO. 251

Parentage: Surprise x Terry

Origin: University of Minnesota, selected in 1928

Tree: vigorous, spreading, highly resistant to brown rot; has fair to good fruit adherence; ripens unevenly; blooms early May; ripens late August

Fruit (figure 83):
- Size: 1¾ x 1½ inches
- Form: oval
- Apex: slightly depressed
- Cavity: shallow
- Suture: a mere line
- Stem: ¾ inch long, slender
- Skin: bright red with heavy purple bloom, thick, tough
- Flesh: orange, melting, moderately juicy
- Flavor: good, sweet
- Quality: good
- Stone: 1¼ x ¾ inch, large, oval, nearly free

MINNESOTA NO. 267*

Parentage: Minnesota No. 89 x Shiro

Origin: University of Minnesota, selected in 1929

Tree: upright, not very vigorous; has good fruit adherence

Fruit (figure 84):
- Size: 1⅞ x 1¾ inches
- Form: obovate
- Apex: flat
- Cavity: moderately wide, shallow
- Suture: a line
- Stem: ¾ inch long, moderately thick

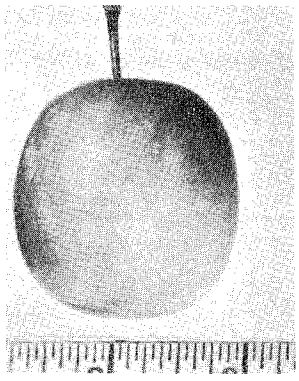


Fig. 84. Minnesota No. 267.

* Perished in our trials and is no longer growing at the University of Minnesota Fruit Breeding Farm.

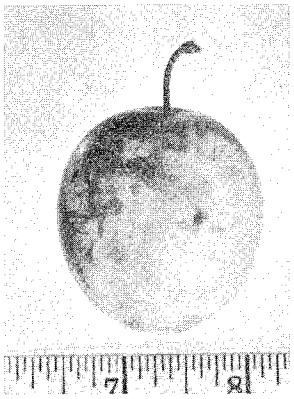


Fig. 85. Minnesota No. 293.

Skin: yellow with red blush and moderately heavy bloom, thick, tough
Flesh: orange, moderately tough, slightly stringy, juicy
Flavor: sweet, sour near pit
Quality: good
Stone: 1⅛ x ⅞ inch, large, roundish, oval, flat, cling

MINNESOTA NO. 293

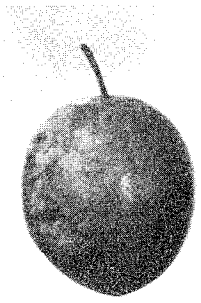
Parentage: probably a *Prunus americana* x *P. salicina* hybrid
Origin: University of Minnesota, selected in 1930
Tree: upright, vigorous, susceptible to brown rot; has fruit cracks in some years; has good fruit adherence
Fruit (figure 85):
Size: 1⅞ x 1½ inches
Form: oval
Apex: roundish
Cavity: shallow
Suture: a line
Stem: ⅝ inch long, slender
Skin: solid light red with medium bloom, tough
Flesh: very deep yellow, juicy
Flavor: sweet
Quality: good
Stone: ⅞ x ½ inch, long, oval, semicling

MINNESOTA NO. 407

Parentage: *Prunus americana*
Origin: University of Minnesota, selected in 1943
Tree: moderately vigorous, spreading, moderately susceptible to brown rot; has good fruit adherence; tends to have fruit cracks
Fruit (figure 86):
Size: 1 x 1 1/16 inches
Form: round, compressed
Apex: slightly depressed
Cavity: very small
Suture: very shallow
Skin: dark red with numerous dots and medium bloom, tough, thick
Flesh: yellow orange, moderately firm, soft around pit, moderately juicy
Flavor: pleasant, nearly sweet
Quality: very good
Stone: 11/16 x ½ inch, oval, nearly free

MINNESOTA NO. 410

Parentage: (South Dakota x October Purple) x (South Dakota x Diamond)
Origin: University of Minnesota, selected in 1943
Tree: small, weak, spreading; fruits sparsely; blooms early May; ripens late August
Fruit (figure 86):
Size: 1½ x 1⅜ inches



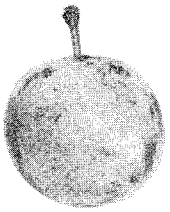


Fig. 86. Left: Minnesota No. 410. Right: Minnesota No. 407.

Form: oval with unequal halves, compressed on sides
Apex: slightly pointed
Cavity: narrow, shallow
Suture: a line
Stem: ½ inch long, slender
Skin: dull red over yellow with medium bloom, tough
Flesh: yellow, slightly stringy, moderately juicy
Flavor: good
Quality: very good
Stone: 1 x ½ inch, long, oval, moderately plump, free

MINNESOTA NO. 411

Parentage: (South Dakota x October Purple) x (South Dakota x Diamond)
Origin: University of Minnesota, selected in 1943
Tree: rather weak, sparsely branched, willowy; fruits sparsely; has good fruit adherence; blooms early May; ripens late August
Fruit (figure 87):
Size: 1 5/16 x 1 3/16 inches
Form: oval with unequal halves, slightly compressed
Apex: round
Cavity: wide, shallow
Suture: a line
Stem: 5/16 inch long, slender
Skin: yellow with red blush and thin bloom, spotted carmine, moderately tough
Flesh: yellow, soft, dry
Flavor: poor
Quality: poor

Stone: 1 x 9/16 inch, oblong, moderately plump, free

MINNESOTA NO. 412

Parentage: South Dakota x October Purple
Origin: University of Minnesota, selected in 1943
Tree: vigorous, low, spreading; has poor fruit adherence; blooms early May; ripens late August
Fruit (figure 88):
Size: 1⅜ x 1⅛ inches
Form: oval, compressed on sides
Apex: slightly depressed
Cavity: small, shallow
Suture: a line
Stem: ¾ inch long, slender, slightly clubbed
Skin: red with heavy bloom, tough
Flesh: yellow, mealy, dry
Flavor: poor
Quality: poor
Stone: 13/16 x ⅝ inch, oval, free

MINNESOTA NO. 413

Parentage: South Dakota x October Purple
Origin: University of Minnesota, selected in 1943
Tree: vigorous, moderately upright, fairly productive; has good fruit adherence; blooms early May; ripens late August
Fruit (figure 89):
Size: 2⅛ x 1½ inches
Form: oval, compressed on sides
Apex: round with russeted point
Cavity: extra wide, moderately shallow

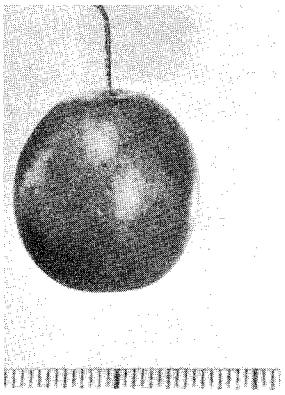


Fig. 87. Minnesota No. 411.

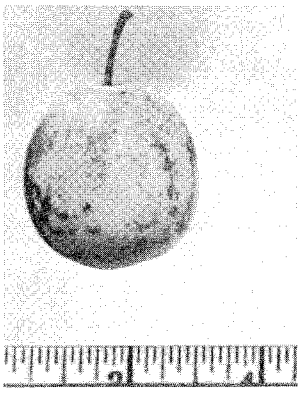


Fig. 88. Minnesota No. 412.

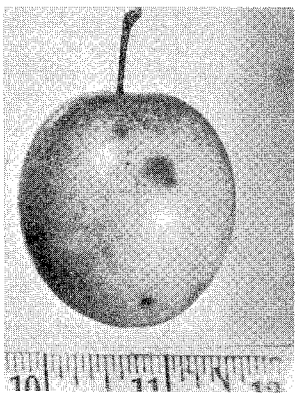


Fig. 89. Minnesota No. 413.

Suture: continuous, a line
Stem: ¾ inch long, thick
Skin: yellow with red blush and thin bloom, spotted carmine, moderately tough
Flesh: yellow, crisp, moderately juicy
Flavor: mild
Quality: fair
Stone: 1 7/16 x ⅞ inch, oblong, free

MINNESOTA NO. 414

Parentage: South Dakota x Diamond
Origin: University of Minnesota, selected in 1943
Tree: vigorous, spreading, fairly productive, susceptible to brown rot and fruit cracking; has poor fruit adherence; blooms early May; ripens late August
Fruit (figure 90):
Size: 1½ x 1¼ inches
Form: oval
Apex: round with russeted point
Cavity: narrow, shallow
Suture: dark red, a line
Stem: 1 inch long, slender
Skin: yellow with red blush and no bloom, spotted carmine, moderately tough
Flesh: yellow, smooth, very juicy
Flavor: mild
Quality: good
Stone: 1 x ¾ inch, oblong, plump, free

MINNESOTA NO. 417

Parentage: Sandcherry (*Prunus besseyi*) x Yellow Egg plum
Origin: University of Minnesota, selected in 1944
Tree: spreading, not vigorous, fairly productive; grows to 8 feet; had obvious winter injury in test winters; ripens late August
Fruit:
Size: 1 x 1 inch
Form: round
Apex: round
Cavity: deep, moderately wide
Suture: faint, continuous, a line
Stem: moderately long
Skin: blue with light bloom, tough
Flesh: yellow with red vascular bundles, tough, very juicy
Flavor: grapelike
Quality: poor to fair
Stone: ¼ x ⅜ inch, oblong, partially free

MINNESOTA NO. 441

Parentage: Oka x Sapa

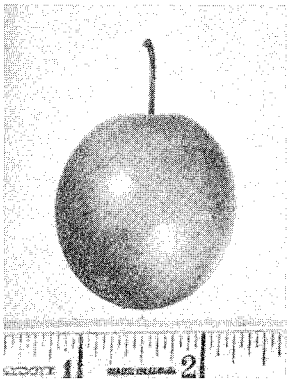


Fig. 90. Minnesota No. 414.

Origin: University of Minnesota, selected in 1947
Tree: not entirely hardy, not productive; resembles cherry plum in foliage type but is more treelike in habit than most cherry plums; has good fruit adherence; ripens early to mid-August
Fruit:
Size: 1⅜ x 1⅜ inches
Form: nearly round, slightly flattened
Apex: flat with no pistil point
Cavity: shallow, flaring
Suture: slight, a line
Stem: short
Skin: dark red when fully ripe with medium heavy bloom, thin, tough
Flesh: medium dark red, firm, tender, very juicy
Flavor: very good, sweet
Quality: excellent as fresh dessert
Stone: 11/16 x 7/16 inch, oval, cling

MINNESOTA NO. 452

Parentage: *Prunus cerasifera divaricata*
Origin: University of Minnesota, selected in 1936; from seed obtained from Russia
Tree: moderately vigorous, compact, dense, fairly productive, hardy; has good fruit adherence; blooms early May; ripens mid-August
Fruit (figure 91):
Size: 15/16 x ⅞ inch
Form: oval
Apex: round
Cavity: small, shallow
Suture: shallow with wide groove
Stem: ⅝ inch long, slender
Skin: golden yellow with no bloom, thin, tough
Flesh: yellow, moderately firm, slightly dry

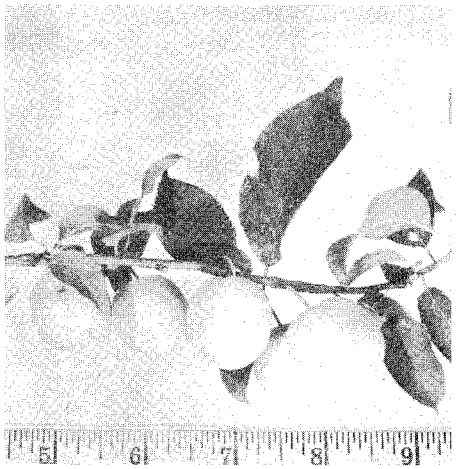


Fig. 91. Minnesota 452.

Flavor: insipid
Quality: poor
Stone: ⅝ x 7/16 inch, oval with thick wing, semicling

MINNESOTA NO. 509*

Parentage: Minnesota No. 62 x Monarch
Origin: University of Minnesota, selected in 1949
Tree: moderately vigorous, low, spreading, not productive, moderately hardy, moderately susceptible to leaf spot; shows *Prunus domestica* characteristics in tree and fruit; blooms mid-May; ripens late August
Fruit (figure 92):
Size: 1⅜ x 1½ inches
Form: round, flattened at both ends
Apex: slightly depressed
Cavity: small
Suture: faint, a line
Stem: 1 inch long, moderately thick
Skin: purplish red with heavy bloom, thin, moderately tough
Flesh: yellow, firm, meaty, rather dry
Flavor: mild, sweet, slightly sour at pit
Quality: very good
Stone: ⅝ x ½ inch, oval, cling

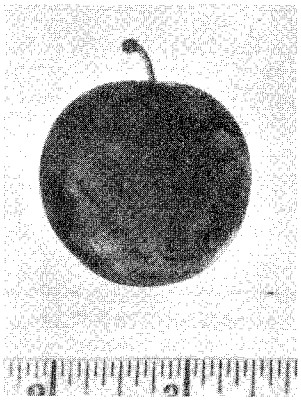


Fig. 92. Minnesota No. 509.

* Perished in our trials and is no longer growing at the University of Minnesota Fruit Breeding Farm.

Appendix: Prunus Cultivars

A listing of *Prunus* cultivars cited as parents of materials described in this bulletin with information on the parent species from which they were derived follows:

Abundance—*P. salicina*

Bokhara—*P. persica*, obtained from Russia

Burbank—*P. salicina*

Compass—*P. besseyi* x *P. hortulana mineri*

Diamond—*P. domestica*

Elephant Heart—Parentage unknown, probably a *P. salicina* hybrid

Elliot—*P. salicina* x *P. americana*

First—Parentage unknown, originated by Luther Burbank

Formosa—*P. triflora (salicina)* hybrid

Gold—*P. munsoniana* x *P. salicina*

Howard Yellow—*P. americana*

Jewell—*P. munsoniana*

Kaga—*P. americana* x *P. simoni*

Lemon Cling peach—*P. persica*

Manchu—*P. sibirica*, from Manchuria, Manchurian apricot

Manitou—*P. tenella* x *P. persica*, Bokhara peach

Minnesota No. 62—*P. salicina* hybrid

Minnesota No. 76—*P. salicina* x *P. americana*

Monarch—*P. domestica*

Moorpark—*P. armeniaca*

October Purple—*P. salicina*

Oka—Seedling of Champa, probably *P. besseyi* x *P. salicina* hybrid

Omaha—*P. salicina* x *P. americana*

Sapa—*P. besseyi* x *P. salicina*, cherry plum

Satsuma—*P. salicina (triflora)*

St. Anthony—*P. besseyi* x *P. salicina*, cherry plum

Scout—Apricot, probably *P. mandshurica* or one of its hybrids

Serbian Pie No. 1—*P. cerasus*, seed obtained from Serbia

Serbian Pie No. 2—*P. cerasus*, seed obtained from Serbia

Shiro—(*P. simoni* x *P. salicina*) x (*P. cerasifera* x *P. munsoniana*)

Shubianka—*P. cerasus*, Morello type

Sioux—*P. besseyi*

South Dakota—Parentage unknown, most nearly resembles *P. americana*

South Dakota No. 22—*P. americana*

South Dakota No. 33—*P. americana*

Superb—*P. armeniaca*

Surprise—Probably a hybrid containing *P. americana* and *P. hortulana mineri*

Terry—*P. americana mollis*

Tom Thumb—*P. salicina* x *P. besseyi*, cherry plum

Van Ness—*P. armeniaca*

Vladimir—*P. cerasus*, Morello-type cherry from Central Russia

Wastesa—Seedling of native plum from South Dakota

Wolf—*P. americana*

Wyant—*P. americana*

Yellow Egg—*P. domestica*

Zumbra—Probably *P. besseyi* hybrid, cherry plum

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