

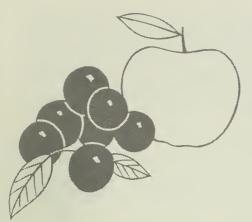
NEW FRUITS FROM SUMMERLAND BRITISH COLUMBIA 1956-1974

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	O METOLO OVOTEN	EAGTORG	CONVERGION
	OR METRIC SYSTEM	FACTORS roximate	
s in:	Result	rsion factor	
			·
(mm)	millimetre	x 25	LINEAR
	centimetre	x 30	foot
	metre	x 0.9	yard
(km)	kilometre	x 1.6	mile
			AREA
(cm²)	square centimetre	x 6.5	square inch
	square metre	x 0.09	square foot
(ha)	hectare	x 0.40	acre
. 2			VOLUME
	cubic centimetre	x 16	cubic inch
	cubic decimetre	x 28	cubic foot
	cubic metre millilitre	× 0.8 × 28	cubic yard fluid ounce
	litre	x 0.57	pint
	litre	x 1.1	quart
	litre	x 4.5	gallon
	hectolitre	x 0.36	bushel
			WEIGHT
(g)	gram	x 28	ounce
(kg)	kilogram	× 0.45	pound
(t)	tonne	× 0.9	short ton (2000 lb)
			TEMPERATURE
.0 .	6	(°F-32) x 0	degrees Fahrenheit
(°C)	/9 degrees Celsius	or (°F-32) >	
			PRESSURE
(kPa)	kilopascal	1 x 6.9	pounds per square inch
			POWER
* *	watt	× 746	horsepower
(kW)	kilowatt	x 0.75	
			SPEED
	metres per second	× 0.30	feet per second
(km/h)	kilometres per hour	x 1.6	miles per hour
			AGRICULTURE
	litres per hectare		gallons per acre
(L /ha)	litres per hectare	x 2.8	quarts per acre
(L /ha)	litres per hectare	x 1.4	pints per acre fluid ounces per acre
(ml/ha) (t/ha)	nillilitres per hectare tonnes per hectare	x 2.24	tons per acre
(kg/ha)	ilograms per hectare	x 1.12	pounds per acre
(g/ha)	grams per hectare	× 70	ounces per acre
(plants/ha)	plants per hectare	x 2.47	plants per acre



NEW FRUITS FROM SUMMERLAND BRITISH COLUMBIA 1956-1974

K. O. Lapins and Hans Schmid Research Station Summerland, British Columbia

INTRODUCTION

This publication describes 12 varieties of fruits introduced by the Research Station, Summerland, B.C., during the period 1956 to 1974 and replaces *New Fruits from Summerland British Columbia*, 1956 to 1970. The first variety publication from Summerland, which was written in 1955 by A. J. Mann and F. W. L. Keane, described Summerland introductions that were considered worthy of recommendations at that time. They were: Sue, Star, Sam, and Van cherries; Reliable apricot; Spotlight and Solo peaches; and McIntosh (Summerland) and Spartan apples. Of these, McIntosh (Summerland) and Spartan apples, and Sam and Van cherries are now grown commercially.

A description of a new variety in this publication does not necessarily mean that it is generally recommended for commercial plantings in the interior of British Columbia. Certain varieties were named following recommendations from fruit-growing areas outside Canada; this applies to Spencer and Summerland apples. Other varieties, such as Sierra pear, have a place in home gardens, whereas others such as Compact Lambert cherry should be planted only under very favorable growing conditions.

The introduction of new varieties somewhat complicates both the growing and marketing of fruit. The many advantages of growing and marketing only a few varieties of each fruit are well recognized. However, more fruit can be sold and the consumer can be served better if a greater choice of varieties can be offered on the market. Some of the present introductions are similar to the standard, well-known varieties and serve only to extend the marketing season of the standard varieties. Thus Stella cherry can be marketed as a Lambert type of cherry before Lambert; Compact Lambert matures after Lambert. Similarly, Salmo cherry is an early ripening Van type of cherry, Early Blenheim apricot extends the Blenheim season, and Sinta apple offers a Golden Delicious type of apple before the Golden Delicious season.

Only grower trials will determine the new varieties that may eventually find a place in commercial plantings. Growers disposing of their fruit on roadside markets have an opportunity to test new varieties with minimal risk. The chances for discovering unexpected faults in new varieties may be counterbalanced by the prospect of offering the customer something better than the old varieties. With this in mind, these new varieties have been named and are offered for growers' trial.

BRIGHT McINTOSH APPLE



Bright McIntosh was introduced for bright skin color, good shape, and slightly earlier maturity than standard McIntosh.

Origin. Bright McIntosh originated as a mutant from scions of McIntosh (Summerland) irradiated with X rays in 1960. The selection was made for bright skin color in 1966 (K. O. Lapins). It was tested as 8F-2-32 and named in 1974.

Tree. The tree is vigorous, but has a greater number of spurs than standard McIntosh. It is moderately resistant to apple powdery mildew. Bright McIntosh comes into bearing earlier than standard McIntosh and crops regularly.

Fruit. The fruit of Bright McIntosh is large and regular in shape. It is slightly more elongated, the skin is brighter red, and the flesh whiter than standard McIntosh (Figure 1). These factors make the fruit of Bright McIntosh attractive. Picking maturity is 3 to 5 days earlier than for standard McIntosh as indicated by seed color and measurement of ethylene production in ripening fruits. Bright McIntosh is fairly resistant to the development of core flush in ordinary storage.

Bright McIntosh is a superior strain of McIntosh and is better than standard McIntosh in situations where a nonspur strain is desired.

SINTA APPLE.



Sinta was introduced as a yellow, good-quality apple to precede Golden Delicious.

Origin. Sinta originated from a cross made in 1956 of Golden Delicious X Grimes Golden; the seedling first fruited in 1963 and was selected in 1965. It was tested as 8C-4-5 and named in 1970 (K. O. Lapins).

Tree. Sinta produces a moderately vigorous, spreading tree with rather heavy branches and a moderate set of fruit spurs. The tree comes into fruiting early and produces moderate to heavy crops. Sinta has been crossed successfully with several varieties and can be expected to interpollenize with most apples except Winesap. No cold injury to the tree or fruit spurs was observed in the cold winters of 1964–65 and 1968–69, when the minimum temperatures were -26°C (-15°F) and -29°C (-21°F) respectively.

Fruit. The fruit is medium in size, round, and slightly irregular. The skin is yellow with a slight blush on the exposed side and has rather conspicuous lenticels (Figure 2). The flesh is cream in color, moderately firm, crisp, and juicy. The flavor is mildly subacid and good. At Summerland, Sinta is picked in the third or fourth week of September, or slightly after McIntosh. The fruit can be stored in good condition until January or February; it has a very long shelf life.

Sinta has a place in the local apple market, particularly at roadside stands, to supplement Golden Delicious. With Sinta, a good-quality apple can be offered to Golden Delicious customers two weeks in advance of the Golden Delicious season.

SPENCER APPLE

Spencer is a good-quality late apple with commercial potential in areas where storage breakdown of fruit is not a problem.

Origin. Spencer originated from the cross McIntosh X Golden Delicious made in 1926 (R. C. Palmer); it was selected in 1938 (A. J. Mann) and tested as S-5-4. In 1959 it was named after Mr. Spencer Dyson, a former employee of the Station.

Tree. The tree of Spencer is vigorous, upright, and spreading and has strong crotches. In test plantings in cold areas, Spencer trees showed considerable winter-hardiness. They were slightly hardier than trees of McIntosh. Spencer is rather slow in coming into bearing, but older trees bear heavily. Spencer can be expected to interpollenize successfully with most diploid varieties. Both tree and fruit have shown some susceptibility to mildew but to a much lesser degree than Jonathan.

Fruit. The Spencer fruit is large, oblong, and very regular. The skin is moderately colored with bright, rather light scarlet stripes or blush. The flesh is crisp, firm, juicy, white, and subacid; the flavor is good. Spencer is picked with Golden Delicious at Summerland, or about 3 weeks after McIntosh. The fruit can be kept in ordinary cold storage until March; it develops moderate core flush and in some years may develop storage breakdown.

Spencer was named in response to the suggestion of certain research workers and growers who saw commercial potential in the variety. In commercial tests the desirable tree and fruit characteristics of the variety should be weighed against the possibilities of somewhat erratic behaviour of the fruit in storage. Spencer is grown commercially in Massachusetts and Wisconsin.

SUMMERLAND APPLE _____

Summerland has potential value as a red-colored, good quality, late apple in areas where biennial bearing does not present a problem.

Origin. Summerland originated from the cross McIntosh X Golden Delicious made in 1926 (R. C. Palmer). The selection was made in 1939 (A. J. Mann) under the selection number S-4-8 and named in 1969 (K. O. Lapins).

Tree. Summerland produces a large spreading tree with strong limbs and crotches. The tree is relatively hardy but slightly more tender than that of McIntosh. The variety comes into fruiting fairly late and bears heavy crops in alternate years. The fruit requires moderate to heavy thinning. Summerland can be expected to interpollenize with other diploid varieties except Winesap.

Fruit. The fruit is of medium size, uniform, round, and slightly conic. The flesh is white, fine, medium firm, and juicy. The flavor is mild and good. The fruit stem is long and rather heavy. Summerland is picked in the third week of October, or slightly before Golden Delicious. The fruit can be held at -0.6°C (31°F) in good condition until mid-February. It is much less susceptible to core flush than McIntosh.

Summerland was named in response to the suggestion of the New Zealand Apple and Pear Board, which recommends this variety for commercial test plantings in New Zealand. There the variety is considered as a potential supplement to or replacement for Idared. Summerland has certain advantages over Idared, including greater resistance to apple powdery mildew, absence of preharvest drop, slightly smaller and firmer fruit, superior flavor and skin color, and absence of storage disorders.

SUMMERRED APPLE .



Summerred was introduced as a substitute for Tydeman's Early in areas where the latter variety is considered unsatisfactory.

Origin. Summerred originated from open pollination of Summerland (formerly S-4-8), which originated from the cross McIntosh X Golden Delicious. Summerred was selected in 1961 under the designation 9E-11-40 and named in 1964 (K. O. Lapins).

Tree. The Summerred tree is vigorous and spreading. It matures early in the fall and is cold hardy. Summerred blossoms early. It can be pollenized by diploid varieties and is an effective pollenizer for Golden Delicious, McIntosh, and Delicious. Summerred comes into bearing rather early and crops fairly regularly for an early variety providing it receives early and light to moderate thinning.

Fruit. The fruit of Summerred is large to medium in size, uniform, and oblong. The skin is lightly colored with a bright solid red blush and has prominent lenticels (Figure 3). The flesh is cream colored; its texture is fine, crisp, juicy, and moderately firm. The flavor is mildly subacid, aromatic, and good. Summerred fruit is rated

high for sauce, slices, and baking. It is picked a few days later than Tydeman's Early, or about 3 weeks before McIntosh. The fruit can be successfully stored until December in ordinary cold storage.

Summerred forms a more desirable tree than Tydeman's Early; it bears earlier and more heavily; and the fresh and processed fruit have better flavor. It is softer and has poorer handling qualities than Tydeman's Early. Summerred is well adapted to cool areas.

SIERRA PEAR

The Sierra pear was named because of its high fruit quality, good bearing habits, and coldhardiness.

Origin. Sierra originated from the cross Bartlett X Marguerite Marillat made in 1947 (A. J. Mann). The seedling was selected in 1956 as 9R-1-13 (K. O. Lapins) and named in 1969.

Tree. Sierra is a moderately vigorous tree with initially upright, then spreading and even drooping branches. The tree comes into fruiting early and bears fairly regular and heavy crops. The framework and fruit spurs are considerably more hardy than those of Bartlett and slightly hardier than Anjou. After both the winters of 1964—65 and 1968—69 when the minimum temperatures were -26°C (-15°F) and -29°C (-21°F) respectively, in some plantings Sierra was the only one of the three varieties to bear fruit. The blossoming of these three varieties overlaps at Summerland, and the varieties are capable of interfertilization. Sierra requires fairly heavy pruning to avoid the development of long and drooping branches. Fruit set is normally heavy, and early, careful fruit thinning is necessary.

Fruit. On well-grown trees and with regulated crops, the fruit of Sierra is very large. The shape is long pyriform and fairly symmetrical (Figure 4). The skin is thin, smooth, and green at picking and turns yellow green when the fruit is eating ripe. Injury to the skin by spring frosts or limb rubs at early stages of fruit development may result in russet spots. Because the skin is tender, the fruit requires very careful handling at harvest and in packing. The flesh is juicy, very fine, and smooth, but may have a few grit cells if picked too late. The flavor is sweet and outstanding in quality. In texture and flavor Sierra has always been rated as superior to any other variety grown at Summerland. Sierra is picked in the third week of September at Summerland or slightly before Anjou. The fruit can be ripened to good condition soon after picking and it keeps at -0.6°C (31°F) until January. To reduce the shrivel of the skin, polyethylene liners are necessary in storage boxes. The fruit of Sierra produces a good canned product with mild flavor.

Sierra is recommended mainly for home gardens. Because of the long shape and tender skin, the fruit may not be suitable for ordinary handling in a commercial packinghouse.

EARLY BLENHEIM APRICOT



Early Blenheim is a thermal-neutron-induced mutant characterized by early maturing large fruit, and annual, moderate fruit set.

Origin. Early Blenheim originated as a mutant after the treatment of dormant scions of Blenheim with thermal neutrons in 1955 (K. O. Lapins). The selection was made in 1959. It was tested as 119B and named in 1970.

Tree. The tree of Early Blenheim is similar to that of the parent variety. Young trees of Early Blenheim set light crops, but mature trees produce moderate to heavy annual yields. Little or no fruit thinning is required. Prevent excessive growth of trees in the early years by careful fertilizing. In contrast to the parent variety, Early Blenheim is pollen self-incompatible and requires another variety as a pollenizer. Furthermore, the fertility of pollen in Early Blenheim is slightly reduced. In some years, fruit buds of Early Blenheim have survived winter cold better than Blenheim. This appears to be due to slower fruit bud development.

Fruit. The fruit of Early Blenheim is large and of the Blenheim type; the texture is slightly soft and juicy, and the flavor is good. Early Blenheim matures in the last week of July at Summerland or 1 week before ordinary Blenheim (Figure 5). Careful timing in harvesting is necessary; fruit picked too early will have green shoulders, and fruit left to ripen on the tree will be soft and have short shelf life.

Early Blenheim may have a place as an early maturing apricot for the local market.

SKAHA APRICOT -



Skaha is an early, large, attractive apricot for fresh market use.

Origin. Skaha originated as a seedling of Perfection, open pollinated. The selection was made in 1955 (K. O. Lapins), tested as 4E-28-14, and named in 1973.

Tree. The tree of Skaha is very vigorous, wide spreading, moderately hardy, and productive. Fruit buds of Skaha are hardier than those of Blenheim and Perfection, but more tender than those of Tilton. Skaha is self-incompatible, but can be expected to interpollenize with other apricot varieties. Skaha comes into bearing early and carries heavy crops. Only light thinning of fruit is necessary to produce large sized fruit.

Fruit. The fruit of Skaha is usually very large, round and orange, and has a light blush (Figure 6). The fruit resembles that of Perfection, but is of better quality. The flesh is moderately firm and good in flavor. The pit is free from flesh. Skaha is picked in the last week of July at Summerland or about 5 days before Wenatchee. For best fresh fruit quality, do not pick Skaha until all the green color has disappeared from the skin. Skaha is primarily a fresh fruit apricot, but is also suitable for home canning.



Figure 1. Fruit of Bright McIntosh (left) and standard McIntosh (right).



Figure 2. Typical fruit of Sinta apple.



Figure 3. Typical fruit of Summerred apple at picking time.



Figure 4. Typical fruit of Sierra pear shortly before harvest.



Figure 5. Left, Early Blenheim apricots, slightly overmature; right, Blenheim 1 week before maturity.



Figure 6. Fruit of Skaha apricot.



Figure 10. Fruit of Compact Stella cherry, similar to Stella.

Skaha should have a place in the fresh fruit market, particularly for local sales. In comparison to Wenatchee apricot, Skaha has the advantages of earlier fruit maturity, more uniform ripening, high quality, and attractiveness.

COMPACT LAMBERT CHERRY

Compact Lambert is a true dwarf and has a place in very dense plantings under the most favorable growing conditions.

Origin. Compact Lambert originated as a mutant from scions of Lambert irradiated with X rays in 1958. The selection for compact growth habit was made in the nursery in 1959. It was tested in the orchard as Lambert 2B-17-4 and named in 1964 (K. O. Lapins).

Tree. The tree of Compact Lambert is small and compact. The growth is characterized by short distances between buds and closely spaced fruit spurs. A tree on a vigorous rootstock may reach one-fifth the size of an ordinary Lambert (Figures 7 and 8). Compact Lambert grafted into the frame of a vigorous variety grows vigorously in the first years in the orchard, but growth is retarded after the commencement of bearing. The branches begin with wide angles at the trunk and curve up to make a narrow and dense tree suitable for a very close planting, 1.8 × 3.7 m (6 × 12 ft) to 2.1 × 4.3 m (7 × 14 ft). The size of tree is ideal for home gardens. The tree of Compact Lambert appears to be as hardy as that of Lambert, and fruit buds and blossoms are hardier than those of the parent variety. Compact Lambert comes into fruiting very early and bears very heavily. So the fruit may be of reduced size unless the crop is regulated by heavy pruning, and good vigor is maintained. The variety requires good soil and the best possible care. Compact Lambert blossoms and its fruit matures about 5 days later than ordinary Lambert. In spite of the late blossoming, Compact Lambert is successfully pollenized by Van or Sam.

Fruit. The fruit of Compact Lambert resembles that of its parent variety, but is usually smaller, more rounded, and on a slightly shorter and thinner stem. If left on the tree to full eating ripeness, the fruit attains good size. At canning maturity, the fruit can be harvested with very little damage by shaking. Most of the fruit is usually well covered by foliage and escapes light rains. As a result, the fruit is less subject to cracking than that of ordinary Lambert.

Compact Lambert is the only variety of dwarf sweet cherry available at present. Growers who believe in the advantages of a dwarf cherry may experiment with Compact Lambert to learn about planting distances, pruning methods, and methods of crop protection from cold, rain and birds. This experience will prove valuable when dwarfs are available in other sweet cherry varieties. Compact Lambert is an ideal variety for home gardens.



Figure 7. Compact Lambert cherry tree at 8 years of age.



Figure 8. Lambert cherry tree at 8 years of age.



Figure 9. Compact and spurred growth of Compact Stella cherry tree.

COMPACT STELLA CHERRY



Compact Stella combines self-compatibility and a desirable compact and semidwarf growth habit.

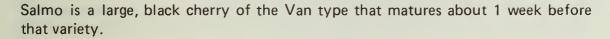
Origin. Compact Stella originated as a mutant through irradiation of dormant scions of Stella with X rays. The irradiation was done by the Brookhaven National Laboratory, Upton, Long Island, N.Y., U.S.A., in 1964. Compact Stella was selected at Summerland in 1966 (K. O. Lapins), tested as Stella 35B-11, and named in 1973.

Tree. The tree of Compact Stella is semidwarf; its final size is about half that of the parent variety. Vegetative shoots are moderately long and internodal distances are short. Older growth is heavily spurred (Figure 9). Compact Stella comes into fruiting very early and carries heavy crops. It is self-fruitful and has been successfully intercrossed with Chinook, Lambert, Van, and several unnamed sweet cherry selections. It can be expected that Compact Stella, like its parent variety, is a good pollinizer for all sweet cherries.

Fruit. The fruit of Compact Stella is black, large to medium large, heartshaped to oval and similar to fruit of Stella (Figure 10). The fruit stem is shorter and thinner than in standard Stella. The fruit is well suited for canning. Compact Stella fruits can be picked without stems but not as easily as Lambert fruits.

Compact Stella is a potential commercial variety. Desirable compact tree size, heavy and reliable bearing, and large fruit are its attractive characteristics.

SALMO CHERRY



Origin. Salmo originated from the cross Lambert X Van made in 1948 (A. J. Mann). The selection was made in 1956 (K. O. Lapins). It was tested as 5J-9-14 and named in 1970.

Tree. Salmo produces a moderately vigorous tree of above-average hardiness. After the severe winter of 1964-65 when the minimum temperature was -26°C (-15°F) in December, Salmo trees showed practically no cold injury; the variety was one among a few that showed fruit bud survival at Summerland. Salmo comes into fruiting early and bears annual, moderate to heavy crops. Salmo blossoms relatively early, but it successfully interpollenizes with Bing and Lambert. At Creston, B.C. Salmo showed considerable tolerance to little cherry virus.

Fruit. The fruit is black, large, round, and short stemmed, and resembles the fruit of its male parent Van. The flesh is moderately firm and the flavor is good for its season. Salmo fruit is more susceptible to splitting in rain than fruit of Van. Salmo

is picked in the first week of July at Summerland, or 1 week before Van.

Salmo is recommended as a mid-early cherry for the fresh-fruit market. Its main advantages over Sam (of the same season) are larger fruit and better fresh-fruit quality.

STELLA CHERRY

Stella, the first good-quality, self-fertile sweet cherry, will be of interest in areas where fruit set is usually low because of unfavorable conditions for pollination.

Origin. Stella originated from the cross Lambert X John Innes Seedling 2420 made at Summerland in 1956 (K. O. Lapins). The pollen parent is one of the first self-fertile sweet cherries produced by irradiating developing pollen with X rays at the John Innes Institute (D. Lewis and L. K. Crowe). The selection was made in 1964, tested under 2C-27-19, and named in 1968 (K. O. Lapins).

Tree. Stella produces a very vigorous, upright, and spreading tree. In the test winter of 1968-69, fruit buds of Stella were more susceptible to cold than those of Lambert and Van but hardier than those of Bing. Stella blossoms relatively early; it comes into bearing early and mature trees produce heavy crops. The variety has a tendency to self thin its fruit; in early years this may result in light crops. Stella is self-fertile, that is, it can set fruit without being pollenized by another variety. Pollination tests have indicated that Stella is a universal donor; it can pollenize any other sweet cherry variety.

Fruit. The fruit of Stella is of the Lambert type and is large, black, and heart-shaped. Under comparable conditions, Stella usually produces larger fruit than does Lambert. The flesh is medium coarse and moderately firm. The flavor is fair to good and comparable with Lambert. Like Van, the skin of Stella is moderately susceptible to cracking in rain. Stella ripens with Van, or a week before Lambert. The variety has rated high in canning tests.

Stella has become a commercial variety in the interior of British Columbia. Self-fertility can be a distinct advantage in areas where cool weather prevails during the blossoming period, and pollinating insects are less active. Large fruit of a desirable type is the other advantage of the variety.

SUMMIT CHERRY.

Summit is noted for its very large fruit of good flavor.

Origin. Summit originated from the cross Van \times Sam, which was made in 1957 (K. O. Lapins). It was selected in 1964, tested as 4C-18-21, and named in 1973.

Tree. The tree of Summit is vigorous and spreading. It is comparable to Bing in winterhardiness. The leaves are large and growing tips are light brownish red. Summit comes into fruiting earlier than Lambert or Sam but later than Stella or Van. It produces moderate to heavy annual yields. Summit interpollinizes with Bing, Lambert, Van, and Salmo.

Fruit. The fruit is very large (up to 13 g), heart-shaped and dark red. The flesh is lighter in color than Lambert and too light for commercial canning. The flavor is mild, sweet, and very good. Fruit cracking in rain is light to moderate and lower than in Lambert. Summit matures about 4 days before Van.

Summit has promise in favorable growing areas as a fresh-fruit variety that produces consistently large fruit.

SELECTED LIST OF EARLIER SUMMERLAND INTRODUCTIONS, WITH PARENTAGE AND THE YEAR OF INTRODUCTION

Apple varieties

Jubilee:

McIntosh X Grimes Golden, 1949

Spartan: Stirling:

McIntosh X Newtown, 1936

Newtown X open, 1936

Apricot varieties

Reliable:

Wenatchee X L-129 (Hewetson), 1946

Cherry varieties

Sam:

V-160140 (=Windsor X open) X open, 1953

Star:

Deacon X open, 1949

Sue:

Bing X Schmidt, 1954

Van:

Empress Eugenie X open, 1944

Peach varieties

Solo:

J. H. Hale X Veteran, 1949

Spotlight:

Veteran X Rochester, 1946

