

The Okanagan Plant Improvement Company (PICO)

PICO is a company owned by the British Columbia Fruit Growers Association (BCFGA) dedicated to the improvement and commercial development of fruit varieties for the purpose of enhancing grower returns and contributing to the viability of a successful fruit industry.

The Importance of Certified Nursery Stock

Fruit growing represents a long term investment in which the trees are the basic units of production. A mistake made in selecting the stock may adversely affect productivity throughout a lifetime.

PICO operates a Certified Budwood Scheme, which is intended to provide wood that is true-to-type and free from pests and diseases for which the wood has been tested.

Growers and nurserymen should be certain the variety and strain they are propagating or planting is true to name. Propagating wood from true-to-name, indexed trees of many of the better strains of most kinds is available from the PICO Certified Budwood program at P.O. Box 6000, Summerland, B.C. V0H 1Z0; telephone 250-404-0088 or fax 250-494-7472. Email address is PICO@agr.gc.ca.

Final deadlines for ordering scion wood are as follows:

Jan 15- Winter/Spring deadline

June 1- Summer/Fall deadline

Supply depends on availability. Orders received by the dates listed will have priority.

Nursery Stock Requirements

As nursery stock supplies are frequently short it is important for growers to order trees one or two years in advance in order to acquire the desired varieties.

Plant Breeders Rights

Plant Breeders Rights (PBR) legislation offers variety discoverers and breeders an opportunity to be compensated for their efforts. Anyone who finds a new variety or limb sport which may be of interest to others should contact PICO.

The existence of PBR means that royalties will have to be paid for new varieties, but it encourages rights holders in other countries to make their varieties available in Canada, and so increases the number of options growers will have for planting. Most new varieties are now protected including those from Agriculture Canada Research Centres.

Growers are invited to test new fruit varieties that are available. Test varieties, where propagation wood is in limited supply, may be distributed in such a way that there is a trial in each district. The aim is to see how varieties perform in a range of conditions. For varieties being tested, a tester's agreement must be signed with PICO. This includes all unnamed Summerland selections, local chance seedlings, and varieties developed in other countries.

Rootstocks

Rootstocks for Apples

CLONAL ROOTSTOCKS

Malling Series

Most Malling stocks produce trees of smaller than standard size. **Malling 9 is by far the most popular stock for this purpose.** However it is important to note that these stocks are not as hardy as seedlings of hardy varieties. Malling 2 is a semi-standard tree; M.4, which is distinct from and not to be confused with MM.104, a slightly smaller tree; M.7 a semi-dwarf tree; and M.9 a dwarf tree. The M.26 stock is only slightly less vigorous than M.7. M.7 is winter tender and damage to the rootstock has occurred in some years historically. Trees on stocks of semi-standard vigour may require staking in early years, while trees on dwarf or semi-dwarf roots will require staking for the life of the planting.

MM.104 and MM.106 are so susceptible to crown rot that they are not recommended.

A number of sub-clones of M.9 (selections within the clone, usually made by nurseries for better stoolbed production) exist. Most of the M.9 rootstocks planted in the Okanagan valley in the past decade are the M.9 T337 sub-clone. Other sub-clones include Pajam1, Pajam2, RN29 (Nic29), and Fleuron 56. The “standard” M.9 sub-clone is the virus-free version of M.9 from East Malling usually called M.9 EMLA. Some M.9 sub-clones differ in vigour control. Pajam2 and Nic29 give a slightly larger tree, between M.9 and M.26 in size, and may be useful to some growers. In trials at Summerland, Pajam2 and Nic29 did not affect suckering, but in some parts of eastern North America, these two sub-clones produced more root suckers than M.9 EMLA. Trees on T337, Fleuron 56 and Pajam 1 were all about the same size as those on M.9 EMLA in trials at Summerland. None of the sub-clones listed above affect scion fruit size.

OTHER DWARFING CLONAL ROOTSTOCKS

Budagovsky 9 (B9 or Bud9) and Ottawa 3 (O.3) are more cold hardy than M.9 and lower the risk of winter injury in cold sites. Both are precocious and productive. B9 and O.3 produce trees that are slightly larger than M.9 in size but smaller than trees on M.26. Propagators report poor bud take on O.3

with scions that have a latent virus infection. If budding scions onto O.3, ensure that the scionwood is certified virus-free.

Mark is another dwarfing rootstock that tends to produce an overgrowth of tissue at the soil line. Trees on Mark tend to “run out” even with drip irrigation. Mark also appears to induce smaller fruit size on the scion. Mark is not recommended for these reasons.

The P-series rootstocks come from Poland. Most of them are cold-hardy, except for P.16, which is only about as hardy as M.9. The P-rootstocks have not performed consistently from site to site, and caution should be exercised in choosing them. For example, in one trial at Creston, trees on P.16 performed as well as those on M.9, but in Summerland, the trees on P.16 were only as big as those on M.27, with a “runted out” appearance, low yield and small fruit. P.22 is a sub-dwarf stock, about like M.27 in vigour control, with small fruit and low yields. P.2 gave vigour control between M.9 and M.26 in Summerland, but was not very yield-efficient and sometimes had smaller fruit. It is very susceptible to fire blight. P.1 resembled M.26 in tree size, but had lower yield efficiency in Summerland trials.

Budagovsky 118 (B.118) is a vigorous rootstock, susceptible to crown rot, but with good midwinter hardiness. It is only recommended for weak scions on weak soils in areas subject to extreme midwinter low temperatures.

The rootstock breeding program at Geneva, New York, has released some rootstocks in recent years. All of them have been selected for good resistance to crown rot and fire blight. Geneva 30 (G30) produces a tree larger than M.26, about like M.7, but with much higher yield efficiency, good precocity and good fruit size. **G30 must be supported.** It forms brittle graft unions with Gala scions, and without support the trees may snap at the bud union in windy conditions. Geneva 16 is said to produce a tree similar to M.9 in size, but in some trials the trees have been considerably larger. **G16 is extraordinarily sensitive to latent viruses.** However it is highly resistant to fire blight. It may produce more root suckers than M.9. Geneva 65 produces very small trees, about like M.27 EMLA, that are too small for most commercial users in the valley. Newer Geneva series rootstocks, in the M9 to M7 size range, are under test in Summerland.

SEEDLING ROOTSTOCKS

For economic reasons dwarfing rootstocks should be used. However if standard trees are desired, Antonovka, Wealthy or Haralson seedlings should be used. Seedlings of these varieties are expected to be more hardy than those of tender varieties such as Delicious. The “average” resistance to crown rot should be greater than that of the susceptible clonal stocks (see section on “Susceptibility of Rootstocks to Crown Rot”, following).

SUSCEPTIBILITY OF ROOTSTOCKS TO CROWN ROT

The most popular growth-controlling clonal rootstocks planted in this region are susceptible to crown rot disease. Almost all of our irrigated orchard soils are infested with the fungus that causes it. There are no preventive or curative measures that are considered satisfactory. Heavy losses of trees to this disease have occurred with some of these rootstocks in individual plantings, while in other orchards with the same rootstocks losses have been negligible. There is no explanation yet for these phenomena. However, growers should be warned of the potential hazards from crown rot infection.

The rootstocks shown below are grouped in order of increasing susceptibility.

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|--------------|---|
| M.9, M.4, B9 | Losses to crown rot of these stocks have occurred in this region, but they have been relatively rare, thus their use is recommended where their particular degree of vigour is desired. |
| M.26, O.3 | In recent plantings of M.26 crown rot losses have been more frequent than in past years. These losses may be due to winter injury predisposing the rootstock to crown rot. |
| M.2, MM.111 | Losses to crown rot have been more frequent with M.2 than with those rootstocks listed above, but have been serious in only a few orchards. |
| M.7 | This stock is susceptible to crown rot and appreciable losses have occurred in some plantings. |

MM.104, MM.106 These stocks are very susceptible to crown rot and heavy losses have occurred in some orchards. The risk of losses occurring in plantings of these stocks is high.

Rootstocks for Cherries

Mazzard and Mahaleb seedlings and the clonal selection of Mazzard F 12/1 are recommended as rootstocks for cherries. Colt is a new cherry rootstock that produces a tree that is similar in size to F 12/1. Winter hardiness of Colt in British Columbia is unknown, but it is reported to be more susceptible to winter injury in the nursery than Mazzard or Mahaleb in other regions. Edabriz (Tabel), a clonal *Prunus cerasus* rootstock developed in France, produces highly productive trees that are more dwarfed than those on Colt. Several Weiroot® (German) selections show promise in producing trees ranging in size from 30% to 60% the size of trees on F12/1. The Gisela® series are other dwarfing cherry rootstocks from Germany producing a precocious tree that vary in size from 45% to similar in size to Mazzard. Gisela 5® seems to be the most promising as the most dwarfing rootstock. **Limited information is available about these rootstocks under North American conditions. At this time, only test plantings of these rootstocks are recommended. Contact PICO for further information.**

There have been reports that some clones of Mahaleb has shown signs of incompatibility with Van and some offspring of Van which would include most of the varieties from PARC. Van was a parent of Stella, Lapins, and Sweetheart. Stella, Lapins, and Sweetheart have been used a lot as seed and pollen donors for crosses.

Hardy Rootstocks for Peaches

SIBERIAN C

Siberian C is one of the hardiest rootstocks available for peach production. Siberian C is not only root hardy but induces hardiness of the flower buds and scion.

BAILEY

Bailey is an acceptable seedling rootstock that is close to Siberian C in root hardiness. Easy to germinate. Seedlings are susceptible to mildew in the nursery. It appears to be more susceptible to root lesions.

HAGGITH

Haggith is a hardy, vigorous, rootstock for peaches that has potential.

Rootstocks for Pears

Old Home x Farmingdale clones 69 and 87 are recommended as alternatives to Bartlett seedling. Neither provides much size control but both are slightly more precocious and productive. Trials underway indicate that Quince A has potential as a rootstock in the warmer areas of the Okanagan Valley.

Varieties for Commercial and Trial Plantings in B.C.

The information in this section is not intended as specific variety recommendations but is provided to assist in selection of varieties. This information is only a small fraction of the information available on the varieties discussed. Information on other aspects of the variety and from many other sources should be taken into consideration when making a decision on varieties to plant. This information is compiled from a number of sources and local experience. The descriptions of the varieties are intended to assist growers in making planting decisions, but are not recommendations. Your packinghouse should also be consulted prior to making variety decisions. More information is available about the cultural aspects than the marketability of new varieties.

Apples – Commercial Varieties

Summer Varieties

SUNRISE

Maturity Season: Early season mid August to early September in BC

Harvest Criteria: Based on ripe eating taste and background color change from green to cream/yellow.

Fruit Description: Medium to large in size. Taste is sweet and sub-acid. Skin color is pinkish/red blush and stripes over a cream/ yellow ground. Flesh is white to cream in color.

Tree Description: Vigorous, spurry and fairly precocious.

Bloom and Pollination: Very early in the blossom season. **Pollinizers:** Makimik, Silken and perhaps McIntosh and any other diploid in the same bloom period.

Production: Very productive and precocious. Is a multiple pick variety.

Strains: None

Advantages: Early season bi-color apple.

Disadvantages: Storage life is very short. Marketing period is limited pre Gala timing. For niche markets only. Susceptible to apple scab.

Storage: Very short. Direct sales only.

Planting Trends: Current planting considered adequate. Planting in later areas will be limited to direct sales as normal retail trade will not take Sunrise once Galas are available

Comments: Market acceptability is limited. Use caution if planning on planting this variety. Niche market only.

GINGERGOLD

CANDIAN PLANT BREEDERS RIGHT 389

Maturity Season: Early Season Mid August to early September in BC

Harvest Criteria: Based on skin color change from green to yellow colour and 25% to 50% of the seeds with colour change.

Fruit Description: Taste is sweet and sub-acid. Skin color is yellow with no over color. Flesh is white to cream in color

Tree Description: Vigorous, spurry and fairly precocious.

Bloom and Pollination: Early in the blossom season. **Pollinizers:** McIntosh and Empire any other diploid in the same bloom period.

Production: Very productive. 1 to 2 picks.

Strains: None

Advantages: Early season yellow apple.

Disadvantages: Storage life is short. Extremely short harvest window. Very susceptible to mildew and fire blight. Unproven market acceptance.

Storage: Very short. Direct sales only.

Planting Trends: Limited planting. No new plantings at this time.

Comments: Market acceptability is limited. Use caution if planning on planting this variety.

SUNRISE

Maturity Season: Early Season Mid August to early September in BC

Harvest Criteria: Based on ripe eating taste and background color change from green to cream/yellow.

Fruit Description: Taste is sweet and sub-acid. Skin color is pinkish/red blush and stripes over a cream/ yellow ground. Flesh is white to cream in color.

Tree Description: Vigorous, spurry and fairly precocious.

Bloom and Pollination: Very early in the blossom season.

Pollinizers: Makimik, Silken and perhaps McIntosh and any other diploid in the same bloom period.

Production: Very productive and precocious. Can be a multiple pick variety.

Strains: None

Advantages: Early season bi-color apple.

Disadvantages: Storage life is very short. Marketing period is limited pre Gala timing. For niche markets only

Storage: Very short. Direct sales only.

Planting Trends: Current planting considered adequate. Planting in later areas will be limited to direct sales as normal retail trade will not take Sunrise once Galas are available

Comments: Market acceptability is limited. Use caution if planning on planting this variety. Niche market only.

SILKEN

CANADIAN PLANT BREEDERS' RIGHT 390

Maturity Season: Early September in BC. With or just before Gala

Harvest Criteria: Based on ripe eating taste and skin color change from green to cream. No starch conversion data has been recorded.

Fruit Description: Taste is sweet and sub-acid. Skin color is cream/ yellow, can be almost white. Flesh is white. Fruit has stem bowl russet that does not usually break over the shoulders.

Tree Description: Moderately vigorous, spurry and very precocious.

Bloom and Pollination: Very early in the blossom season.

Pollinizers : Makimik, McIntosh and any other diploid in the same bloom period.

Production: Very productive and precocious. Needs prompt and adequate thinning to ensure fruit size. 1 to 2 picks.

Strains: None

Advantages: Early season yellow apple.

Disadvantages: Storage life is limited. Market acceptability is unknown. Can develop water-core like disorder under hot conditions. Symptoms can be seen through the skin. Stem bowl russet.

Storage: Short, about 8 weeks in 1°C air.

Planting Trends: Current planting considered adequate.

Comments: Market acceptability is unknown. Use caution if planning on planting this variety. Look at this variety being a niche market variety at this time.

Early Season

GALA

Maturity Season: Early Season Late August to mid September in BC.

Harvest Criteria: Based on starch conversion and ground color change from green to creamy-white color. Starch charts are available.

Fruit Description: Taste is sweet and sub-acid with distinctive aromatics. Skin color is 40 to 90% orange red blush, stripes and flecks over cream yellow ground. Creamy yellow flesh is firm, crisp and juicy.

Tree Description: Vigorous, spurry and fairly precocious. Wood is very brittle. Caution is advised when manipulating branches during tree training.

Bloom and Pollination: Can have an extended blossom period. Pollinizers Ambrosia, Spartan, Fuji, Braeburn any other diploid in the same bloom period.

Production: Very productive. This variety needs prompt and adequate thinning to ensure good fruit size. Fruit on over-cropped trees may not mature in a timely manner. Royal and Imperial are multiple pick varieties. The new strains may 1 or 2 pick varieties

Strains: Standard Sports:

Royal and Imperial

New high Color Sports

Brookfield, Olsentwo, (Pacific), Gales, Galaxy, Mitchgl

There are many sports and strains. Contact you fieldperson for recommendations. Buckeye and other some other blush strains are not recommended.

Advantages: World known variety, accepted as a commodity type apple. BC can produce high quality fruit. Annual cropping.

Disadvantages: World production of Gala is increasing. Royal and Imperial are multiple pick varieties. Fruit size can be small. Susceptible to powdery mildew. apple scab and fire blight.

Storage: 3 1/2 months in air. Perhaps 6 months in CA

Planting Trends: Increasing in North America and the World. High colored one pick strains and sports dominate plantings.

Comments:

MCINTOSH

Maturity Season: Early September in BC, with or just after Gala.

Harvest Criteria: Dependent on the change to red in the skin over-color. Lack of red color will reduce the packout.

Fruit Description: Taste is sweet/tart and unique. Skin color is red blush over green ground. Flesh is white.

Tree Description: Moderately vigorous, and moderately precocious.

Bloom and Pollination: Flowers early in the blossom season.

Pollinizers: Makimik, Golden Delicious and any other diploid in the same bloom period.

Production: Moderately productive and precocious. Needs prompt and adequate thinning to ensure fruit size. 1 to 2 picks.

Strains: Summerland Red Mac, Morspur, Marshall, Macspur, DS 99 (RedMax) and others. Summerland Red Mac and Morspur are the recommended clones.

Advantages: "Mac" is an established variety in Canada and has a consumer following.

Disadvantages: Attaining adequate color can be a problem. Storage life is short. Stored fruit can lose pressure quickly resulting in a short shelf life. This variety is subject to stem punctures and bruising at harvest. Care in handling is essential. Suffers from pre-harvest drop. Susceptible to scab, mildew and fire blight

Storage: Short, about 8 weeks in 1°C air. Longer in CA

Planting Trends: Declining rapidly, current production is more than adequate.

Comments: While market acceptability is known over production and poor storage qualities may result in low returns. Use caution if planning on planting this variety.

HONEYCRISP

CANADIAN PLANT BREEDERS' RIGHT 1007

Maturity Season: Early Season slightly after McIntosh in BC.

Harvest Criteria: Based on skin color, fruit pressure and starch conversion. The fruit can be very slow in developing over-color. Excess nitrogen can inhibit fruit coloring.

Fruit Description: Taste is sweet and sub-acid. Skin color can be 40 to 90% pink red blush and/or stripes over green/yellow ground. Creamy yellow flesh is firm, crisp and juicy. Fruit has a dull finish and a dimpled appearance.

Tree Description: Non-vigorous, spurry and fairly precocious. Growth is very weak after fruiting commences. Leaf mottling and some leaf edge necrosis are inherent in the variety. The leaf symptoms Tree is very cold hardy perhaps up to -40°C. Reports of extreme biennial bearing.

Bloom and Pollination: Flowers early to the middle of the blossom season. Pollinizers Golden Delicious, Spartan, any other diploid in the same bloom period.

Production: Moderately productive. Can be very biennial. Can suffer preharvest drop.

Strains: There are reports that there may be 2 distinct strains of Honeycrisp. One that colors well (blushed) and one that colors poorly (striped). This has not been substantiated in BC.

Advantages: New variety that is getting a good reputation for eating quality in the world. Some promotion of the variety has occurred in the world. Very limited plantings in BC

Disadvantages: Can be very biennial. Achieving color on the fruit can be difficult. Fruit size and appearance are very unstable. Keeping fruit size down to an acceptable level can be a problem. Bitter pit in large fruit. Tree is susceptible to mildew. Fruit is susceptible to soft scald in storage. Reports of internal browning in stored fruit.

Storage: 3 1/2 months in air. Perhaps 6 months in CA

Planting Trends: Increasing in North America and the World. Slow increase plantings in BC.

Comments: This variety has many challenges that growers may or may not be able or willing to

overcome. A world-wide program to remedy some of the challenges has been undertaken. Caution is advised when considering planting this variety.

GOLDEN DELICIOUS

Maturity Season: Mid to late September in BC.

Harvest Criteria: Harvest by starch conversion. Starch conversion charts are available. Do use color as a harvest indicator.

Fruit Description: The taste is sweet and slightly tart. Skin color is green/yellow with no over color. The flesh is white to cream in color.

Tree Description: Vigorous, and productive and precocious.

Bloom and Pollination: Flowers about the middle of the blossom season.

Pollinizers: Any diploid in the same blossom time. Golden is pollinized by many varieties.

Production: Very productive and precocious. Needs prompt and adequate thinning to ensure fruit size. 1 to 2 picks. Can be biennial bearing.

Strains: No specific color strains. Gibson Golden (Smoothee™) is somewhat russet resistant. Numerous spur-type clones. Spur type clones have inferior internal quality compared to non-spur types.

Advantages: “Golden” is an established variety in the world and has a consumer following. It is the most planted yellow apple. Productive. Used as pollinizer for many varieties.

Disadvantages: Skin russet can be a problem. Some biennial bearing. Can bruise at harvest, requires care in handling. Cannot be used as to pollinate first generation off-spring eg. Jonagold.

Storage: Long storage in CA

Planting Trends: Declining in the last few years, some interest developing recently.

Comments: Golden Delicious production has declined worldwide in the last few years.

Mid Season

AMBROSIA

CANADIAN PLANT BREEDERS' RIGHT 388

Maturity Season: Early to mid October in BC.

Harvest Criteria: Harvest by starch conversion only. Ambrosia starch conversion charts are available. Do not use color as a harvest indicator. Starch in the fruit of Ambrosia converts at about 1.5 units per week. This gives Ambrosia a short harvest window

Fruit Description: The taste is sweet, the flesh is crisp, juicy and aromatic. Skin color is cream/yellow ground with distinctive 40 to 80% pink/red over-color. The over-color is blush and broad faint stripes. The flesh is white to cream in color. The fruit is very clean.

Tree Description: Moderately vigorous, and very productive and precocious. Tree is very upright and spurry. Growth in the first year after budding or grafting can be slow. Well suited to super spindle plantings.

Bloom and Pollination: Flowers about middle to late in the blossom season.

Pollinizers: Gala, Spartan Granny Smith, any diploid in the same blossom time.

Production: Very productive and precocious. Needs prompt and adequate thinning to ensure fruit size. 1 to 2 picks. No reports of biennial bearing. Over cropped trees or trees treated with excessive nitrogen result in poor colored fruit.

Strains: None

Advantages: Ambrosia is a new cultivar creating grower, buyer, and consumer interest. The fruit is easy to harvest and packs well. Release of the variety in the world will be under controlled planting and production agreements. Growers are committed to promoting this variety.

Disadvantages: Short harvest window. A high percentage of the fruit is from young trees.

Storage: Moderate storage life in air and CA. Similar or less than Gala.

Planting Trends: Increasing dramatically in the last few years

**8S6923 AURORA GOLDEN GALA™
CANADIAN PLANT BREEDERS' RIGHT 1652**

Maturity Season: Late September to early October in BC.

Harvest Criteria: Harvest by starch taste, change in skin color to yellow, and by starch conversion. Harvest indices are being developed by PARC, PICO and the BCMAFF.

Fruit Description: Medium in size, round conic in shape. Skin color is yellow at harvest. Flesh is cream/ white in color, very crisp and very juicy. The taste is sweet and very mildly tart.

Tree Description: Moderately vigorous, and very productive and very precocious. Tree is very spurry. Well suited to super spindle plantings.

Bloom and Pollination: Flowers about middle to late in the blossom season.

Pollinizers: Gala, Spartan Granny Smith, Ambrosia any diploid in the same blossom time.

Production: Extremely productive and precocious. Needs prompt and adequate thinning to ensure fruit size and fruit maturity. 1 to 2 picks. No reports of biennial bearing. Overcropped trees or trees treated with excessive nitrogen result in poor prolonged maturity season.

Strains: None

Advantages: 8S6923 is a new cultivar from the breeding program at PARC. There are a minimum amount of trees under test in other countries. It is a new yellow apple that has a long storage life and great eating qualities. This variety to other fruit growing areas of the world in controlled production agreements. Extremely long storage and shelf life.

Disadvantages: Consumer response to another yellow apple is unknown. Can be hard to pick if trees are young. All fruit packed at this time is from young trees. Needs work on harvest indices. Packing line bruising is apparent on the fruit. Care should be taken to minimize bruising at harvest and the packing lines, by packing at least 45 days after harvest. Very new variety.

Storage: Moderate storage life in air and CA. Similar or less than Gala.

Planting Trends: Increasing dramatically in the last few years.

Comments: This variety is very new to the apple world. Caution is advised when deciding whether or not to plant this variety.

SPARTAN

Maturity Season: Mid Season, mid to late September to early October in BC.

Harvest Criteria: Based on starch conversion and red over-color

Fruit Description: Medium to large in size, globose in shape. Taste is sweet/tart, and distinctive. Skin color is 90 to 100% dark red blush over green ground. The white flesh is crisp and juicy.

Tree Description: Vigorous, spreading tree habit and fairly precocious. No spur types recognized. Has some blind wood.

Bloom and Pollination: Golden Delicious, Gala, Red Delicious any diploid in the same blossom timing.

Production: Moderately productive. I pick.

Strains: None

Advantages: Long storage life. BC grows very high quality Spartans. Very few other growing areas produce Spartan. Selling agencies have been able to maintain the price and market for the amount of Spartan grown in BC. Attaining color is usually not a problem. I pick.

Disadvantages: Blind wood can be a problem. Needs adequate thinning to maintain fruit size. Needs adequate light penetration to maintain high fruit color. Very few other growing areas produce Spartan.

Storage: Fruit has been stored for long periods in CA. Up to 9 months.

Planting Trends: Increasing recently in BC.

Comments: Spartan has maintained a decent return to growers. Spartan breakdown in storage can be controlled with Calcium dips. Avoid excessive nitrogen applications.

PINOVA

Maturity Season: Mid-season with Ambrosia.

Harvest Criteria: Based on ripe eating taste ground color change and starch conversion

Fruit Description: Medium in size. Taste is moderately tart/sweet and aromatic. Skin color is

pinkish/red blush over a yellow/orange ground. Flesh is cream in color.

Tree Description: Moderate vigor

Bloom and Pollination: Very early in the blossom season with an extended bloom time

Pollinizers: Golden Delicious and other diploids in this period.

Production: Very productive and precocious. May require more than one pick for color.

Strains: None. Pinova has three tradenames in the US Corail, Sonata and Pinata (Piñata)

Advantages: Newer introduction in Canada. May have some promotion in the US.

Disadvantages: unique taste. Storage life can be short. Susceptible to fire blight. Attaining adequate color may be a problem.

Storage: Short if harvested at peak maturity or for high color.

Planting Trends: Planting are very limited in Canada.

Comments: Pinova is in limited production in North America. Market response is unknown at this time.

DELICIOUS (RED DELICIOUS)

Maturity Season: Mid Season in BC. Early October

Harvest Criteria: Based on starch conversion and red over-color

Fruit Description: Medium to large in size and oblong to oblong conic in shape. Taste is sweet. Skin color is 90 to 100% dark red blush and/or stripes over green ground.

Tree Description: Moderately vigorous, spurry and fairly precocious. Wood is very brittle.

Bloom and Pollination: Golden Delicious, Gala, Spartan any diploid in the same blossom timing

Production: Very productive. 1 or 2 picks

Strains: Many sports and strains. Striped strains are generally preferred over blush strains. Preferred strains have elongated, "typey", shape.

Advantages: Commodity apple. Heavy annual crops. Attaining color is usually not a problem. 1 pick.

Disadvantages: Consumer acceptance is declining. Large production in Washington State diminishes returns in BC. The taste of newer high color sports is suspect at best.

Storage: Fruit has been stored for 12 months or more in CA. This does not help the variety as year old fruit is of poor quality.

Planting Trends: Declining in BC and the world.

Comments: This variety is no longer considered a viable variety in BC.

Late Season

BRAEBURN

Maturity Season: Late Season, mid to late October in BC. With Fuji.

Harvest Criteria: Based on starch conversion and red over-color.

Fruit Description: Taste is tart/sweet, and distinctive. Skin color is 25 to 50% dark red blush over green/yellow ground. The white/cream flesh is firm, crisp and juicy.

Tree Description: Low to moderate vigor, spurry habit and very precocious. Can runt out easily. Can exhibit biennial bearing.

Bloom and Pollination: Granny Smith, Gala, Ambrosia any diploid in the same blossom timing.

Production: Moderately productive.

Strains: Hidata (Hillwell™) Canadian Plant Breeders Right 1775.

Lochbuie Red Braeburn Canadian plant Breeders' Right 1775 Untested in BC.

Advantages: Unique taste has a consumer following. Good storage potential.

Disadvantages: Weak tree can runt out. Can have a very long growing season. Storage disorders can be a problem. Susceptible to mildew, scab, bitterpit, sunburn, fire blight, and biennial bearing.

Storage: Good with very good CA potential. Can have internal browning after storage. This phenomena may be season specific.

Planting Trends: Declining rapidly in BC and the world. Hidata (Hillwell™) is a color improvement on regular Braeburn.

Comments: Braeburn can have a tendency to bitterpit, mildew, scab, fire blight watercore, internal browning, sunburn and a susceptibility to mites. Research is being conducted to find cures for the above problems.

SPA 440**NICOLA™**

Maturity Season: Late season, about 5 days before Fuji.

Harvest Criteria: Based on starch conversion and background color change.

Fruit Description: Large in size. Taste is sweet with low acidity and high in aromatics. Skin color is 80% cherry-red blush over green/yellow ground. The white/cream flesh is very firm, crisp and juicy. The fruit is borne on very long thin stems,

Tree Description: Low to moderately vigorous and with flat branch angles and some blind wood. Precocious and productive

Bloom and Pollination: Very late season bloom, Gala, Fuji and/or Granny Smith or any other diploid in the same bloom timing. Late blooming crab varieties.

Production: Moderate to good production.

Strains: None.

Disadvantages: Long storage and shelf life. Very limited plantings. Requires less thinning than Aurora. Late bloom may be advantageous in frost-prone sites. Keeps well in air storage without becoming waxy.

Disadvantages: Very limited plantings. Market response is unknown. Limited regional evaluation has been done on this variety. Some stem bowl russetting, more noticeable on first year fruit or after cool wet springs.

Storage: Very long storage potential and long shelf life.

Planting Trends: New release from PARC. Limited plantings.

Comments: SPA 440 (Nicola™) is a late season high quality apple variety. Growers interested in planting this variety are urged to contact PICO for information.

FUJI

Maturity Season: Late Season, mid to late October in BC. With Braeburn

Harvest Criteria: Based on starch conversion, taste and red over-color.

Fruit Description: Taste is sweet with little acid, and distinctive. Skin color is 25 to 50% pink/red blush over green/yellow ground. The white/cream flesh is firm, crisp and juicy.

Tree Description: Moderate vigor, non-spurry habit and very precocious. Can exhibit biennial bearing. Can be difficult to train.

Bloom and Pollination: Granny Smith, Gala, Ambrosia any diploid in the same blossom timing.

Production: Moderately productive but can bear biennially.

Strains: Many strains Fuji BC Redsport 2 is the most common in BC. Newer sports include early maturing strains: September Wonder, Auvil Early, other new strains include Kiku 8 and Myra.

Advantages: Unique taste has a consumer following. World class apple. Good storage potential. Developing markets in Canada.

Disadvantages: Can have a very long growing season. Production in China is expanding rapidly. Achieving color can be a problem. Fruit can exhibit skin russetting, sunscald, and watercore.

Storage: Good with very good CA potential and long shelf life

Planting Trends: Stable in BC and the world with the exception of China. Some interest in new strains.

Comments: The production of Fuji in China has scared a lot of growers off planting Fuji. While caution is advised in planting this variety there may be an expanding market in North America.

GRANNY SMITH

Maturity Season: Late Season, mid to late October in BC. With Braeburn. Often picked earlier. "The time to pick is when the price is right"

Harvest Criteria: Based on starch conversion, taste and market availability.

Fruit Description: Medium to large in size, round in shape. Taste is distinctively tart with some sweetness. Skin color green with conspicuous white lenticels. The white flesh is firm, crisp and juicy.

Tree Description: Vigorous, and slightly weeping in habit and precocious. Has a tendency to tip bear.

Bloom and Pollination: Fuji, Gala, Ambrosia any diploid in the same blossom timing.

Production: Very productive.

Strains: Regular Granny Smith is the only strain worth planting. Spur type Granny's are very inferior in fruit quality.

Advantages: Unique taste has a consumer following. World class apple. Good storage potential. Consumer acceptance has allowed Granny to maintain its market and returns.

Disadvantages: Can have a very long growing season. Fruit can exhibit, sunscald, and watercore. Fruit with pink/red blush may be undesirable in the market place. Moderately susceptible to apple scab, powdery mildew and fireblight.

Storage: Good with very good CA potential and long shelf life. Storage scald may develop if picked too early.

Planting Trends: Increasing moderately in the last few years in BC. The world market for green apples is stable.

Comments: Granny Smith has maintained its market share for the last few years. Solid green fruit color may be maintained if the trees are kept vigorous and fuller than super-spindle. Some markets are rejecting fruit with blush and conspicuous white lenticels.

CRIPPS PINK PINK LADY®

Maturity Season: Very late season, late October after Fuji.

Harvest Criteria: Based on pink/red over-color.

Fruit Description: Small to medium in size, conical, long oblate in shape. Taste is tart, and distinctive. Skin color is 25 to 70% pink/red blush over lime green/yellow ground. The skin of the fruit can have a dimpled (pebbled) appearance. The white/cream flesh is very firm, and somewhat dry. Fruit should be stored to achieve optimum flavor.

Tree Description: Vigorous and with upright habit and moderately precocious. Can be difficult to train. Very distinctive leaves.

Bloom and Pollination: Mid season bloom, Golden Delicious to Gala, or any other diploid in the same bloom timing. Can have very extended bloom.

Production: Moderately productive.

Strains: None. There are sports being produced in other fruit growing areas of the world, eg. Pink Kiss. They are not available here at this time.

Advantages: Unique taste has some consumer following. Good storage potential. May have a place in the tart apple market

Disadvantages: Can have a very long growing season. Very susceptible to fire-blight, and apple scab. Achieving maturity can be a problem. Fruit size can be small. Sensitive to harvest and packing bruising. Tree is not grower friendly.

Storage: Good with good CA potential and long shelf life.

Planting Trends: Limited interest in BC. Perhaps should be grown in only the earliest sites.

Comments: Pink Lady® is a registered trademark in Canada. There is an international organization dedicated to the promotion of Pink Lady apples. Caution is advised for growers; this variety matures very late in the season.

Peaches – Commercial Varieties (in order of maturity)

EARLY REDHAVEN

Attractive red skinned variety with firm red flesh. Continues to be the main early variety but the percentage of splitstone fruit can be very high in some seasons. Early Redhaven is not a freestone variety. Winter and spring frost hardiness is adequate.

Planting Trend - Declining. A suitable replacement variety is desirable.

REDHAVEN

Attractive red skin colour with yellow flesh. Freestone when fully ripe. Redhaven continues to be the main peach variety in B.C. Volumes are usually adequate for the market. Redhaven is well adapted to the peach growing areas in B.C.

Planting Trend – Orchardists should have a specific reason for planting additional Redhaven as a production backlog can develop during the harvest season.

GLOHAVEN

A freestone variety with a dark red skin colour. Quality and yields are very good. Glohaven matures about 10 days after Redhaven. Moderately hardy.

Planting Trend - Increasing. Glohaven has proven to be a good variety for the South Okanagan.

CRESTHAVEN

Medium large fruit that is firm and ships well. The skin of Cresthaven can be tough. Cresthaven is freestone. Harvest begins in the last week of August. Cresthaven is establishing a reputation as a good variety for the late part of the season in our southern growing areas. Cresthaven is considered to mature too late for some of the northern peach producing areas.

Other Peaches

Also planted in the B.C. Interior are Angelus, Early Elberta, Flavorcrest, Golden Monarch, Harrow Diamond, and O'Henry. There is some interest in growing white fleshed peaches as a way of offering a unique product. Champion, Raritan Rose and the Paul Friday (PF®) series are in test in B.C. Contact PICO for availability. Steller Series from Jim Friday's programme Blushing Star (White Fleshed) and Rising Star.

Nectarines – Commercial Varieties

CRIMSON GOLD

Earliest variety with commercial potential that is suitable for production in B.C.'s production areas. This variety is fairly attractive but does not have high red colour. Shelf life is limited in comparison to later maturing varieties.

Planting Trend - There are only small plantings of this variety.

EARLY SUNGRAND

This is an early to mid season variety ripening mid August. The fruit is medium size, firm and has overall red skin colour. Fruit quality is good but shelf life is limited. Winter hardiness is considered to be moderate.

Planting Trend - There are small plantings only.

FIREBRITE

Relatively new variety with some trial plantings in the South Okanagan. It has bright waxy cherry red skin colour. The flesh is yellow, firm and good quality. Splitstones can be a problem for Firebrite. The tree is considered to be moderately vigorous and moderately productive but has not been fully evaluated. Recent experience indicates that this variety is difficult to grow because of disease and insect problems and the predominately small size is difficult to market.

Planting Trend - Trials.

REDGOLD

Redgold is the most planted and has proven to be the most suitable nectarine variety for the Okanagan, but matures too late for some locations. The fruit has a bright waxy red colour and clear yellow flesh. Fruit size is large. Quality is excellent and yields are high, equal to good peach varieties. Redgold has average winter hardiness and resistance to spring frost.

Other Nectarines

Varieties of nectarines that are being tried but are not fully evaluated, particularly in relation to hardiness, in the Okanagan areas include Independence, Fantasia, Flavortop, Earliscalet, and Harblaze.

Pears – Commercial Varieties**BARTLETT**

Bartlett has been the major pear variety planted in B.C. Difficulties in controlling pear psylla, declining markets and poor returns have reduced interest in Bartlett. Susceptible to fire blight.

Planting Trend- Declining. Some blocks of Bartlett have been removed.

ANJOU

Anjou has been the main winter pear grown in B.C. for many years.

Planting Trend- Declining.

BOSC

Bosc matures about 20 days after Bartlett. The tree is vigorous and productive. Stony pit virus is common in Bosc and disease free propagating wood is important. Bosc is a high quality pear and interest is increasing. Susceptible to fire blight.

Planting Trend - Increasing. Small plantings are being established.

Other Pears**CONCORDE
CANADIAN PLANT BREEDERS****APPLICATION # 94 276**

Bred in the U.K., a cross of Comice x Conference. PBR application filed in Canada. Contact PICO concerning availability. This variety is very susceptible to Fireblight.

HARROW SWEET

Bred in Ontario, fire blight resistant, high eating quality, matures 3 weeks after Bartlett. Subject to PBR.

Other varieties generating some interest are Comice, Conference and Aurora.

RED PEARS

Planting of red pears has stabilized. No significant plantings have been established in B.C. The market has not paid the premium prices for red pears that were anticipated.

Some red varieties of interest include:

STARKRIMSON

A red Clapp's Favourite with excellent eating quality. Short storage potential.

SENSATION

Considered to be the most promising red Bartlett.

REIMER RED

This is a Comice and Max Red Bartlett cross with excellent dessert quality fruit.

CASCADE

Another Comice and Max Red Bartlett cross that has large fruit with good yields. Dessert quality is also considered to be excellent. Cascade marks easily.

ASIAN PEARS

Interest in Asian pears has also stabilized. Very few have been planted in B.C. Like other pears, Asian pears take a long time to come into bearing and yields are lower than European pears. Asian pears, however, tend to be more precocious than European pears. Asian pears mark very easily. The varieties that

are proving to be the best for the Cashmere area (quite similar to the Okanagan) in Washington State are Hosui, Kosui, Shinseiki, Chojuro and 20th Century.

HOSUI

Medium size, completely russeted fruit.

KOSUI

Russeted light brown colour, early, good quality.

SHINSEIKI

Medium size, yellow fruit with very mild flavour.

CHOJURO

Russeted, small to medium size.

20TH CENTURY

Large greenish yellow fruit that is sweet and juicy.

A-RI-RANG

Large round fruit with a golden russet. The fruit is crisp, firm and juicy with a unique flavour. It ripens about mid October in Washington State. This variety seems to have attracted considerable interest elsewhere but little is known about how it will perform in BC

Dark Sweet Cherry Varieties

SANTINA **CDN PBR**

#1202

PARENTAGE STELLA X SUMMIT

TREE

Habit: Spreading to weeping
 Harvest timing: 6 to 8 days before Van and Bing
 Bloom timing: Middle of the bloom season
 Fertility: Self-fertile

PLANTING TRENDS Increasing slightly

FRUIT CHARACTERISTICS

Fruit shape: Flattened heart
 Skin colour: Dark red to black
 Flesh colour: Dark red
 Juice colour: Red
 Stem length: Medium long
 Average fruit weight: 9.5g
 Natural cracking: 36%
 Firmness (Durometer): 69
 Soluble solids: 17%

COMMENTS

Santina is our earliest ripening variety. The fruit is medium in size and uniform in colour. The fruit responds well to GA. The tree is self-fertile, productive and somewhat weeping in habit. The flavour is moderately sweet. The variety is a good choice for the early cherry market.

SUMNUE (CRISTALINA™) **CDN PBR** #318

PARENTAGE STAR X VAN

TREE

Habit: Spreading
 Harvest timing: 5 to 7 days before Van and Bing
 Bloom timing: Middle of the bloom season
 Fertility: Non self-fertile

PLANTING TRENDS Increasing

FRUIT CHARACTERISTICS

Fruit shape: Kidney slightly compressed
 Skin colour: Dark red to black
 Flesh colour: Dark red

Juice colour: Dark red
 Stem length: Moderately long & thick, may be picked stemless

Average fruit weight: 10.0g
 Natural cracking: 29%
 Firmness (Durometer): 68
 Soluble solids: 17.1%

COMMENTS

The fruit of Sumnue mature early in the harvest season and are the largest in the early season category. The fruit are glossy and very attractive in a pack. The tree is spreading and productive.

SUMELE (SATIN™) **CDN PBR**

#1556

PARENTAGE LAPINS X 2N-39-05

TREE

Habit: Moderate vigour, spreading
 Harvest timing: 2 days before Van and Bing
 Bloom timing: Middle of the bloom season
 Fertility: Non self-fertile, moderately productive

PLANTING TRENDS For Test Only

FRUIT CHARACTERISTICS

Fruit shape: Heart
 Skin colour: Dark red, slightly mottled. Very attractive
 Flesh colour: Red
 Juice colour: Red
 Stem: Short and thick
 Average fruit weight: 10.8g
 Natural cracking: 27%
 Firmness (Durometer): 77
 Soluble solids: 19.4%

COMMENTS

The fruit of Sumele mature early in the harvest season. Dark pigments in the fruit make them very attractive in a pack. More information on fruit quality and market response is needed.

STELLA

PARENTAGE LAMBERT X JOHN
INNES SEEDLING 2420

TREE:

Habit Vigorous
Harvest timing: With Van and Bing
Bloom Timing: Middle of blossom season
Fertility: Self-fertile

PLANTING TRENDS: Declining

FRUIT CHARACTERISTICS

Fruit shape: Lambert shape
Skin colour: Dark red
Flesh colour: Dark Red
Juice colour: Red
Stem length: Medium
Average fruit weight: 10.6 g
Natural cracking: Moderately susceptible
Firmness: Moderately firm

COMMENTS

It was the first commercially introduced self-fertile sweet cherry. It interpollenizes with all other cultivars. Bears heavy crops. This variety may not be of commercial acceptance.

SONNET
CDN PBR #1201

PARENTAGE VAN X STELLA

TREE

Habit: Moderate vigour
Harvest timing: 2 days after Van and Bing
Bloom timing: Middle of the bloom season
Fertility: Non self-fertile, not productive

PLANTING TRENDS Increasing marginally

FRUIT CHARACTERISTICS

Fruit shape: Heart
Skin colour: Bright red
Flesh colour: Cream to light pink
Juice colour: Clear
Stem: Moderately long and thick
Average fruit weight: 12.4g
Natural cracking: 17%
Firmness (Durometer): 67
Soluble solids: 19%

COMMENTS

The fruit of Sonnet are very large and mature early to middle in the harvest season. The skin color is a distinctive bright red blush. The fruit responds well to GA and has a high sugar content. The tree has a tendency to set light crops and is a candidate for dwarfing root stocks. Requires adequate pollenizers.

SUMSTE (SAMBA™)
CDN PBR #1557

PARENTAGE 2S-84-10 X STELLA 16A-7

TREE

Habit: Upright and spurry
Harvest timing: 2 days after Van and Bing
Bloom Timing: Early in the bloom season
Fertility: Non self-fertile

PLANTING TRENDS Stable

FRUIT CHARACTERISTICS

Fruit shape: Heart
Skin colour: Dark red
Flesh colour: Red
Juice colour: Red
Stem: Medium
Average fruit weight: 11.4g
Natural cracking: 15%
Firmness (Durometer): 74
Soluble solids 18.6%

COMMENTS

The fruit of Sumste (Samba) matures slightly after Bing. The fruit are large with dark red, glossy skin. The tree is compact, very spurry, with average precocity.

SANDRA ROSE**CDN PBR #320****PARENTAGE** 2N-61-18 X SUNBURST**TREE**

| | |
|-----------------|--------------------------------|
| Habit: | Spreading |
| Harvest timing: | 3 to 4 days after Van and Bing |
| Bloom Timing: | Middle of the bloom season |
| Fertility: | Self-fertile |

PLANTING TRENDS Increasing marginally**FRUIT CHARACTERISTICS**

| | |
|-----------------------|-------------------|
| Fruit shape: | Round |
| Skin colour: | Dark red to black |
| Flesh colour: | Dark red |
| Juice colour: | Dark red |
| Stem: | Thick |
| Average fruit weight: | 11.6g |
| Natural cracking: | 17% |
| Firmness (Durometer): | 70 |
| Soluble solids: | 20.1% |

COMMENTS

The fruit of Sandra Rose mature early/mid in the harvest season. The fruit are large with glossy black skin and are very attractive in a pack. The fruit responds well to GA. The variety has finished at the top of taste panels

SUMLETA (SONATA™)**CDN PBR #317****US PLANT PATENT #11,378****PARENTAGE** LAPINS X 2N-39-05**TREE**

| | |
|-----------------|----------------------------|
| Habit: | Upright and spreading |
| Harvest timing: | 7 days after Van and Bing |
| Bloom timing: | Middle of the bloom season |
| Fertility: | Self-fertile |

PLANTING TRENDS: Stable or decreasing**FRUIT CHARACTERISTICS**

| | |
|---------------|-------------------------------|
| Fruit shape: | Kidney/dimple on the nose end |
| Skin colour: | Dark red to black |
| Flesh colour: | Dark red |
| Juice colour: | Dark red |
| Stem length: | Thick |

| | |
|-----------------------|-------|
| Average fruit weight: | 12.7g |
| Natural cracking: | 42% |
| Firmness (Durometer): | 77 |
| Soluble solids: | 19.1% |

COMMENTS

The fruit of Sumleta are very large and firm with glossy, dark skin that make a very attractive pack. The tree is very productive, vigorous and upright. The fruit has a significant nose dimple.

SYLVIA**PARENTAGE:** VAN X SAM**TREE:**

| | |
|-----------------|---------------------------|
| Habit: | Semi-compact |
| Harvest timing: | 7 days after Van and Bing |
| Bloom Timing: | Very Late |
| Fertility: | Not self-fertile |

PLANTING TRENDS: Increasing slightly**FRUIT CHARACTERISTICS**

| | |
|-----------------------|-------------------|
| Fruit shape: | Lambert shape |
| Skin colour: | Dark red to black |
| Flesh colour: | Dark red |
| Juice colour: | Dark red |
| Stem length: | Thick |
| Average fruit weight: | 10.7 |
| Natural cracking: | Low |
| Firmness | Very firm |

COMMENTS:

Good flavour that is moderately sweet. Both size and colour are uniform within a pack. The stems are notably very thick and hold up well in cold storage. It has consistently had a low percentage of splitting, and is considered tolerant to rain splitting.. Growers in Europe have reported that this selection is very tolerant to sun scalding. The tree has a very dense protective canopy that provides excellent protection for the fruit. This dense foliage may also offer protection from the rain.

LAPINS

PARENTAGE: VAn X Stella

TREE

Habit: Vigorous, very upright.
 Harvest timing: 12 to 14 days after Van and Bing
 Bloom Timing: Early/middle in the bloom season
 Fertility: Self-fertile

PLANTING TRENDS Stable

FRUIT CHARACTERISTICS

Fruit shape: Flat round
 Skin colour: Dark red
 Flesh colour: Red
 Juice colour: Red
 Stem length: Short and thick
 Average fruit weight: 10.9g
 Natural cracking: 26%
 Firmness (Durometer) 82
 (FirmTech) 295g/mm
 Soluble solids: 20.3%

COMMENTS:

The standard for the mid/late season varieties. In some years overcropping may be a problem. Wind whipping of the fruit has occurred in some years. The tree is vigorous and the natural growth habit appears to be upright with little tendency to spread. This makes tree training a challenge. The fruit has a good tolerance to rain splitting

SKEENA

CDN PBR #319

US PLANT PATENT #11,392

PARENTAGE 2N-60-7 X 2N-38-22

TREE

Habit: Upright and spreading
 Harvest timing: 12 days after Van and Bing, with Lapins
 Bloom timing: Middle of the bloom season
 Fertility: Self-fertile

PLANTING TRENDS Increasing

FRUIT CHARACTERISTICS

Fruit shape: Kidney
 Skin colour: Dark red to black
 Flesh colour: Dark red
 Juice colour: Dark red
 Stem length: Thick
 Average fruit weight: 11.6g
 Natural cracking: 20%
 Firmness (Durometer): 80
 Soluble solids: 17%

COMMENTS

When compared to Lapins, Skeena fruit are slightly larger, slightly firmer, with thicker stems, and the tree is significantly easier to manage. This variety is gaining popularity in Canada and the world.

SWEETHEART

PARENTAGE: VAN X NEWSTAR

TREE:

Habit: Moderate vigour, flat branch angles.

Harvest timing: 19 to 21 days after Van and Bing

Bloom Timing: Middle in the bloom season

Fertility: Self-fertile

PLANTING TRENDS Increasing

FRUIT CHARACTERISTICS

Fruit shape: Round

Skin colour: Dark red

Flesh colour: Red

Juice colour: Red

Stem length: Short and thick

Average fruit weight: 10 g

Natural cracking: 26%

Firmness (Durometer) 82
(FirmTech) 295g/mm

Soluble solids: 20.3%

COMMENTS

Average fruitsize, very firm, moderately sweet with good flavour. The skin colour stays red throughout maturity. Very precocious with very heavy crops. This trait could prove useful in growth control in the early years of production but overcropping may also be a problem. Observations in the field suggest that it may be susceptible to winter injury.

SYMPHONY**CDN PBR #321**

PARENTAGE SWEETHEART X UNKNOWN

TREE

Habit: Upright

Harvest timing: 22 days after Van and Bing

Bloom Timing: Middle of the bloom season

Fertility: Self-fertile, very productive

PLANTING TRENDS Stemless market only

FRUIT CHARACTERISTICS

Fruit shape: Heart

Skin colour: Red

Flesh colour: Red

Juice colour: Red

Stem length: Long

Average fruit weight: 10.6

Natural cracking: 15%

Firmness (Durometer): 75

Soluble solids: 17 %

COMMENTS

This variety has a tendency to fall from the stems before or during harvest. The fruit is of poor quality. Recommended for stemless market only.

13S2009 (STACCATO™)**CDN PBR APP: # 00-2154**

PATENT APP: # 60/363,547

PARENTAGE: SWEETHEART X UNKNOWN

TREE

Habit: Upright and spreading

Harvest timing: 26 after Van and Bing, 7 days after Sweetheart

Bloom Timing: Middle of the bloom season

Fertility: Self-fertile

PLANTING TRENDS Increasing rapidly

FRUIT CHARACTERISTICS

Fruit shape: Flattened heart

Skin colour: Red to dark red

Flesh colour: Red

Juice colour: Red

Stem length: Long

Average fruit weight: 11.1g

Natural cracking: 17%

Firmness: (Durometer): 78

(FirmTech): 250 g/mm

Soluble solids: 19.8%

COMMENTS

The fruit of this very late cherry variety is large, firm, and has a good tolerance to rain induced cracking. The fruit is glossy and attractive in a pack. Flower bud hardiness is similar to, or even harder to Bing.

13S2101**CDN PBR APP #02-3216****PARENTAGE SWEETHEART X UNKNOWN****TREE**

Habit: Moderate vigor, flat branch angles.
 Harvest timing: 29 days 10+ days after Sweetheart
 Bloom Timing: Middle/late in the bloom season
 Fertility: Self-fertile

PLANTING TRENDS Test only at this time**FRUIT CHARACTERISTICS**

Fruit shape: Elongated heart
 Skin colour: Red
 Flesh colour: Pink
 Juice colour: Pink
 Stem length: Very long
 Average fruit weight: 10.8g
 Natural cracking: 22%
 Firmness (Durometer): 80
 (FirmTech): 260g/mm
 Soluble solids 19.3 %

COMMENTS

The fruit of 13S2101 are moderately large, very firm and have bright red skin. The fruit are glossy and make an attractive pack. The flavor is sweet with some acidity. The fruit mature very late in the harvest season. This selection has promise as a very late season cherry. The tree is moderately vigorous with flat branch angles and produces moderate crops. This selection is being tested extensively, market response is limited.

SPC 103**CDN PBR APP: #01-2710****PARENTAGE: SWEETHEART X UNKNOWN****TREE**

Habit: Moderate vigour, flat branch angles.
 Harvest timing: 29 days after Van and Bing, 10+ days after Sweetheart
 Bloom Timing: Middle/late in the bloom season
 Fertility: Self-fertile

PLANTING TRENDS Test only at this time**FRUIT CHARACTERISTICS**

Fruit shape: Flat round
 Skin colour: Dark red
 Flesh colour: Red
 Juice colour: Red
 Stem length: Short and thick
 Average fruit weight: 10.7g
 Natural cracking: 26%
 Firmness (Durometer) 82
 (FirmTech) 295g/mm
 Soluble solids: 20.3%

COMMENTS:

SPC 103 is a new test selection and has been planted in limited amounts in BC. The flesh is very firm, crunchy and moderately sweet. The harvest window appears to be extensive. The tree is exceptional in habit with flat angled, well spaced branches, and produces heavy crops. More information on fruit quality and market response is required.

BLUSH (RAINIER) TYPE VARIETIES

13N0770 (STARDUST™)
CDN PBR #01-2767

PARENTAGE 2N-63-20 X STELLA

TREE

| | |
|----------------|----------------------------------|
| Habit | Upright, spreading and vigorous |
| Harvest timing | 12 to 15 days after Van and Bing |
| Bloom timing | Late in the bloom season |
| Fertility: | Self-fertile, very productive |

PLANTING TRENDS Increasing

FRUIT CHARACTERISTICS

| | |
|-----------------------|-------------------------------------|
| Fruit shape: | Flattened heart |
| Skin colour: | Bright red blush over yellow ground |
| Flesh colour: | Cream |
| Juice colour: | Clear |
| Stem length: | Short and thick |
| Average fruit weight: | 11.5g |
| Natural cracking: | 29% |
| Firmness (Durometer): | 76 |
| Soluble solids | 18.7% |

COMMENTS

The fruit of 13N0770 mature mid/late in the harvest season. May have to pick this variety more than once to attain maximum fruit color. A blush variety with a distinctive cream ground colour. The fruit are large, firm and somewhat split resistant. This variety has the potential to extend the “Rainier” season by 7 days.

13N0739

PARENTAGE: 2N-63-20 X STELLA

TREE

| | |
|-----------------|--------------------------------|
| Habit: | Upright spreading |
| Harvest timing: | 7 to 9 days after Van and Bing |
| Bloom Timing: | Mid season |
| Fertility: | Self-fertile |

PLANTING TRENDS Stable

FRUIT CHARACTERISTICS

| | |
|-----------------------|-----------------------------------|
| Fruit shape: | Kidney |
| Skin colour: | Blush type Red over yellow ground |
| Flesh colour: | Cream |
| Juice colour: | Clear |
| Stem length: | Short to medium |
| Average fruit weight: | 12.2 g |
| Natural cracking: | 34% |
| Firmness (Durometer): | 78 |
| | (FirmTech): 254g/mm |
| Soluble solids: | 22% |

COMMENTS

Large fruit, moderately tolerant to cracking. Skin can be slightly mottled. Taste is very sweet. Cropping may be slightly low. Wind whipping bruises can be a problem

SPC 243

CDN PBR APP #01-2710

PARENTAGE SWEETHEART X UNKNOWN

TREE

| | |
|-----------------|--|
| Habit: | Vigorous, and upright. |
| Harvest timing: | 22 days after Van and Bing, 3 to 4 days after Sweetheart |
| Bloom Timing: | Middle in the bloom season |
| Fertility: | Self-fertile |

PLANTING TRENDS For test only at this time

FRUIT CHARACTERISTICS

| | |
|-----------------------|---------------------------------------|
| Fruit shape: | Kidney |
| Skin colour: | Orange/red blush over a yellow ground |
| Flesh colour: | Yellow |
| Juice colour: | Clear |
| Stem length: | Moderately long |
| Average fruit weight: | 10.4g |
| Natural cracking: | 16% |
| Firmness (Durometer): | 77 |
| | (FirmTech) 228g/mm |
| Soluble solids: | 18.5% |

COMMENTS

SPC 243 is a new test selection and has been planted in limited amounts in BC. The selection is a “Rainier” type. The fruit are firm and juicy. The taste is sweet and the flavor is considered good. More testing for fruit quality and market response is needed.

OTHER VARIETIES

These varieties are not of commercial quality for the current cherry market.

SALMO

A seedling from Lambert x Van, introduced by Summerland in 1970. A Van-type cherry maturing 7 days earlier than Van. It is one of the hardiest cultivars in the Summerland collection. It bears moderate to heavy crops, the fruit is large, fully black, relatively firm, and fair to good in flavor. The fruit is subject to moderate cracking.

SUMMIT

A Summerland selection from the cross Van x Sam named in 1973. A Lambert-type cherry, maturing about 8 days earlier than Lambert. It has produced moderate to heavy crops with consistently large to very large fruit. The flesh is fairly light in color and moderately soft; the flavor is sweet and good. Fruit cracking is slight to moderate. The tree is very tender, similar to the tree of Bing.

VAN

An open-pollinated seedling of Empress Eugenie, introduced by Summerland in 1944. It has become popular in North America and Europe and was the second most widely planted cultivar in British Columbia. The tree is vigorous, hardier than most cultivars, bears young, and is very productive. The fruit can be large; it becomes small only on overloaded trees. The round, blocky fruit with a short stem is fairly attractive with its bright skin. The flesh is nearly black, firm, and very fine; the flavor is very good. Its texture and flavor are at least as good as Bing. The fruit may crack but always less than that of Bing. It matures at the same time as Bing or a day earlier. The tree and blossoms are hardier than Bing.

SUNBURST

A selection from the same cross as Lapins (Van x Stella) and named at the same time (1984) that matures 3 days after Van. The fruit are large and tend to be firm, dark red with good flavour and moderately sweet. There are some reports that under some conditions the fruit may be soft. It stores very well with the stems staying green and attractive. The tree is self-fertile and sets moderately heavy crops. It appears from a limited number of trees at Summerland that heavy pruning needs to be consid-

ered to maintain cropping and fruit size. The shape of the fruit tends to be slightly more rounded, similar to Bing. The fruit are considered to be tolerant to rain splitting. Observations have been made that it may be prone to Mg deficiency.

NEWSTAR

An introduction (1988) from a cross of Van x Stella from Summerland that has found a place in Europe. An early, black cherry selected from the same cross as Lapins. It matures about 3 days before Van. The fruit is moderately firm, with better than average fruit size with long stems, and the tree produces very heavy crops. It is self-fertile and susceptible to rain splitting. It is moderately sweet with a good flavour. The skin tends to pit slightly, and initial, limited studies show that it does not store well. The size can be small if crop load is allowed to be too heavy. Reports from Europe indicate that Newstar behaves quite differently under their growing conditions with good fruit size and annual cropping. It appears to be one of their more promising new varieties for the early market.

SAM

An open-pollinated seedling of the Vineland selection V-160140, introduced by Summerland in 1953. Slow in starting to bear, but mature trees can carry heavy crops. The fruit is medium in size, fully black, medium firm, with rather coarse texture and fair flavor as fresh fruit. Suitable for pollenizer variety only.

BING

Bing has excellent fruit quality but:

- is very susceptible to rain splitting.
- is less winter and spring frost hardy than other varieties.
- yields are not high.
- has higher cullage rates than other varieties.

PLANTING TREND Declining

Sour Cherries

MONTMORENCY

Care should be taken to obtain virus free planting stock since sour cherry yellows virus disease has been a problem in the past.

PLANTING TREND Stopped

Apricots – Commercial Varieties

TOMCOT

Fruit from this variety is creamy/yellow with no blush. It is more flavourful than Goldstrike or Goldbar, but the fruit is smaller. The tree is not winter hardy but is productive. The fruit ripens 3 or 4 days earlier than Goldstrike. It is not considered to be a shipping cot. Tomcot is partially self fruitful.

GOLDBAR

A productive new variety from Washington that bears large, good quality fruit. The fruit is orange with some red blushing. Harvest time is 1-2 days earlier than Goldstrike. Winter injury may be a problem for this variety. Requires cross pollination.

GOLDSTRIKE

A large sized orange cot with about 20% blushing. The fruit is firm with moderate juiciness and sweetness. This variety is considered a shipper to distant markets. Requires cross pollination with Rival or Goldbar. May be subject to pitting.

RIVAL

The fruit is yellow with rosy cheeks and is oval and large sized. The flavour is mild and has a fine texture. It ripens a week after Goldstrike.

Other Varieties

There is some interest in Hargrand, a large, juicy good flavoured variety suitable for the fresh market from Ontario. Also Harglow, Harlayne and Harogem.

2E-15-5 is a medium size orange apricot that is quite firm, handles well and has very good flavour. It must be picked when full colour has developed. Matures just before Tilton. There is some interest in this Summerland Research Station selection.

PERFECTION

Perfection is an old variety that has very large fruit and ships well. Matures after Wenatchee Moorpark. Susceptible to spring frost and requires pollination. Perfection lacks flavour but is quite popular in the market and for roadside stand sales.

Planting Trend – Declining

PUI SHA SIN

Early blooming and maturing apricot. It has very large size similar to a small peach. Pui Sha Sin has excellent exotic flavour. This variety has a long harvest period and requires 4-5 harvests. The skin is tender, bruises easily and the apricot is difficult to handle. Good for local sales.

Planting Trend - Small plantings have been established, but little interest otherwise.

Older Varieties

WENATCHEE MOORPARK

Good yields but quality is not suited to today's fresh market requirements.

PLANTING TREND Trees should be removed because of market resistance.

TILTON

Not suited to fresh market requirements because of fruit size. Plant only in areas free of spring frost.

Planting Trend - Declining.

SKAHA

Fruit is large, firm and bright orange when mature. Skaha matures about 5 days before Wenatchee Moorpark. Immature fruit has poor quality.

PLANTING TREND Declining

GOLDRICH

Orange yellow waxy skin colour. Attractive large size fruit. Fruit quality is only moderate and acidic until fully mature. Goldrich ships quite well. Matures about 10 days before Wenatchee Moorpark. Subject to surface pitting. Goldrich is susceptible to apricot ring pox virus infection.

PLANTING TREND Declining

Prunes – Commercial Varieties

EARLY STRAINS (Greaa or Demaris)

Cultural Information- Pollinizer branches should be grafted into Early Italian trees or pollinizers planted to improve cropping. Good pollinizers are Peach Plum, Bradshaw Greengage or Damson.

Planting Trend - Declining

LATE STRAINS

Cultural Information - Late strains of Italian prunes should be removed if they mature after September 15. Early maturity and good size are important. To achieve this, plant in warm locations, prune spurs and thin fruit.

PLANTING TREND Declining

Plums – Commercial Varieties

SANTA ROSA AND SHIRO

Both are attractive plums with good fruit size. They should be planted together for pollination at a ratio of four Santa Rosa to one Shiro. These Japanese plums require hand thinning and more than one picking. Shiro ripens 7 -10 days later and is firmer than Gold plum.

Other Varieties

Other varieties that have been suggested for planting in the past include Black Amber, June Blood, Earliblue Fiebing, Ember, Ozark Gold, Ozark Premier, Friar and Starking Delicious.

PLANTING TREND Most are small plantings for local and fruits and sales.