

Harvest Report 2000 – Tree Fruit

Cherry

Conditions for pollination were good in spring 2000 and most varieties set plenty of fruit for evaluation and harvest. **Angela, Viscount, Emperor Francis, Kristin,** and **Hardy Giant** were reliably productive. Conditions at harvest were good also, and very little fruit damage appeared in the early and mid season. Some rain showers in late July produced higher rates of cracking and rot in some of the late-mid harvest varieties. The cherry plots were covered by a netting framework protecting the crop from bird damage. **Lapins** and **Sweetheart** trees on Gisela 5 rootstock and **Hudson** on Gisela 1 all produced good yields of high quality fruit, and most of the fruit could be picked without ladders. **Lapins** and **Sweetheart** are both self fruitful. **Bing** and **Rainier**, standard varieties, cropped moderately to heavily on the Gisela stock.

Cherry ripening order, 2000

v. early	early	mid season		late	v. late
Early Burlat	Cavalier	Sweet Anne	Bing	Lapins	Hudson
	Viscount	Hartland	Emperor Francis	Schneider	Regina
	Tulare	Attika	Bada	Montmorency	
	Kristin	King	Rainier	Galaxy	
	Hardy Giant	Bergie	Surefire	Sweetheart	
		Angela			

New: Trees of the newer varieties and selections produced a good yield for evaluation. Particularly notable in mid season were **Hartland**, an attractive dark sweet cherry with somewhat softer flesh, **Attika** and **Regina**, also dark cherries with firmer flesh,. Young trees of **Surefire**, a new tart pie cherry, produced a heavy set of fruit in their first bearing year. Two Geneva selections were **NY 13791**, a large, blackish-red sweet cherry with excellent flavor, and **NY 13688**, with bright red color and yellow flesh, that looked good and were flavorful.

Proposed Discard

Cavalier – unproductive

Tulare – unproductive

King – unproductive, fruit tends to be small.

Apricot

The 2000 season was very poor for apricots at Mount Vernon. Conditions at bloom time were cold and rainy, so that even usually reliable varieties like **Puget Gold** failed to produce more than a few fruit, and most trees had no fruit at all. **Patterson** and **Westley** produced some fruit, as did **Deatrich**, a newly grafted variety. We will be looking favorably at those in the coming year.

Proposed Discard:

EarliOrange – unproductive

Hungarian Rose – unproductive

Peach

Conditions for pollination of peaches were about average in 2000. Bloom period was the first two weeks of April, later than 1999 and considerably later than in 1998. Set was variable, with a few of the newer acquisitions showing good set, while a number of the varieties planted in 1994 had little fruit, even though fully mature. Several varieties were marked for discard due to poor production. Of the white fleshed peaches planted in 1994, none has shown good productivity. This is disappointing because the fruit is usually attractive and high quality with sweet, low acid fruit. We are looking for consistent productivity as well as quality, and will continue to bring in new introductions that may perform better in future. Some new material from various breeding programs is in the nursery and we should have several varieties in the orchard this year and next. The productivity rating (set) of peaches on trial at Mount Vernon in 2000 is shown in the table below:

Productivity ratings of peach cultivars and selections, 2000

5 heavy	4 mod heavy	3.5	3 moderate	2.5	2 light	1 very light
PF 5B	Redstar	HarrowDawn	Harbelle	Sentry	PF 1*	PF 7*
Starfire	HW 272	Newhaven	HW 264	PF 25*	Avalon Pride	Snowbrite
	PF 15A	HW 252	Harken		HW 271	Saturn
	PF 17*	PF 27A*	Redhaven		White Lady	PF 12A*
			Harrow Fair		Mid-Pride	Art.Supreme
			HW 257		Sugar Lady	
			PF 24-007*			
			Vanity			

*young trees just beginning to bear

One possible factor affecting productivity in peach varieties may be the type of bloom. Some peach varieties have "non-showy" flowers, in which the petal size is

much smaller than in the "showy" type with broad, wide open flowers. Bees seem to be more attracted to the "showy" type of blossom, which would give trees with that type of bloom an advantage especially when conditions for pollination are less than ideal as they are in our area.

Among the early season peaches, **Harrow Dawn** ripened in late July, and fruit quality was good. New trees of **Harrow Diamond**, a productive early peach, were re-established in 2000 and should begin fruiting soon. In early-midseason, reliable standbys **Harbelle**, **Harken**, and **Redhaven** were less productive than their best, but these mature trees provided ample fruit. **Newhaven** had high fruit quality. Trees set well this year, but on average it is only moderately productive. **Redstar (FA 52)** is highly colored and sweet. **Starfire**, about two weeks after **Redhaven**, produced flavorful, attractive yellow-fleshed fruit; it may be a promising late season variety. Promising Harrow selections on trial are **HW 272**, **HW 252**, **HW 264** and **Harrow Fair**, all with yellow flesh.

New: Among the young trees fruiting this year were a number from the "**Flamin Fury**" series developed by a private breeding program in Michigan. **PF5B** ripe in late July, **PF15A** and **PF17** and in mid season, and the late varieties **PF24-007** and **PF27A**, showed good productivity (see table). We look forward to seeing their performance in 2001.

Proposed Discard:

Snowbrite – Unproductive

Sugar Lady – Unproductive

Arctic Supreme – Unproductive

Crimson Snow – Unproductive

Nectarine

Bloom conditions for the nectarines were the same as for the peaches, and bloom was also later than usual for them. **Hardired**, a yellow fleshed nectarine ripe about 10-15 days after Redhaven, is looking better all the time as the best adapted of currently available nectarines. It is consistently productive, good flavored and attractive. Fruits tend to be small but will size well if thinned.

Productivity ratings of nectarine cultivars and selections, 2000

5 heavy	4 mod heavy	3 moderate	2 light	1 very light
	Crystal Rose	Arctic Glo	Tasty Gold	Crystal Red
	Hardired	HW 108		Crimson Snow
		HW 109		Arctic Queen
		HW 110		Arctic Rose

The Harrow selections **HW 108** and **HW 109** continue to perform well, although some cracking was seen in both this year. They are yellow fleshed with good color, flavor and texture. **HW 108** ripens with Redhaven and **HW 109** is about 5–7 days later. The white fleshed varieties **Crystal Red** and **Crystal Rose** have not matched their best (1998) but the young trees need further evaluation.

New: Fruiting for the first time this year was the Harrow selection **HW 110**, a colorful yellow fleshed nectarine ripe about a week after Redhaven. We look forward to seeing how it does in 2001.

Proposed Discard:

Arctic Glo – Cracks, not reliably productive

Arctic Rose – Unproductive

Arctic Queen – Unproductive

Crimson Snow – Unproductive

Plum

Weather was reasonably good for pollination throughout the plum bloom period, and most varieties set a good crop. In the early season, **Early Laxton**, **Beauty** and young trees of **Methley** were all productive. The two purple-leaf plums **Cocheco** and **Hollywood** both cropped well. **Hollywood** is the better flavored and more attractive of the two.

European plums **Imperial Epineuse**, **Valor** and **Victory** produced heavy crops of high quality fruit. **Seneca** produced a good yield of the usual high quality. All of these are proven producers, well worth trying in any fruit garden. **Queen Victoria**, a classic English variety ripe in mid season, was notably good this year.

Longjohn, a European type introduced by Geneva, was productive, with distinctive long oval shaped fruit of good flavor. **Schoolhouse**, a yellow plum of local origin, produced a reliable crop this year, although some fruits showed cracking and gum pockets. **Polly** is a very late ripening Italian type, flavorful and moderately productive. The fruit tends to color early before it is truly ripe, so be careful not to pick too soon.

Plum ripening order 2000

v. early	early	mid	late	v. late
Early Laxton	Cocheco	Mirabelle de Metz	NY 77.387.1	Schoolhouse
Methley	Allo	Mirabelle (858)	Midnight Sun	Polly
Beauty	Obilnaja	NY 77.610.1	Mirabelle de Nancy	NY 58.911.1
All-Red	Imperial Epineuse	Queen Victoria	Ente 652	Golden Trans. Gage
	Castleton	Kirke's Blue	Herrenhauser	Coe's Golden Drop
	Fortune	Victory	Longjohn	
	Cambridge Gage	NN 77.602.1	Valor	
	NY 58.900.12	Seneca	NY 58.904.1	
		Red Ace	Stanley	

Numbered selections from Geneva, New York are in process of evaluation. We will be checking on any that are likely to be introduced. One of the most interesting was **NY 77.610.1**, nicknamed "**Rosy Gage**" for its pink blushed appearance. It has dense, richly flavored flesh with very high sugar content, but several picks are needed for complete harvest. **NY 71.387.1** is a smaller Italian type, firm and sweet, ripe in early September.

Proposed Discard:

NY 58.900.12 – Mediocre quality
Red Ace – Variable size, drops, astringent

Pear

Bloom and fruit set were abundant on pears in 2000. Opening the season in mid July was a very early variety, **Bella de Guigno**, with attractive mild-flavored fruit good right off the tree. About two weeks later **Ubileen** and **Harrow Delight** followed, both with good quality fruit. Do not let fruit of **Ubileen** hang on the tree, to prevent internal browning. We still need to determine accurate harvest timing for this variety.

In the pear test plot, mature trees of **Bosc**, **Comice**, **Concorde** and **Conference** again had heavy yields of excellent quality fruit. Fruit from standard **Bosc** and from **Bronze Beauty** and **Golden Russet** strains all were fully russeted and quite attractive. **Starkrimson** trees reached full productivity this year. Mature trees of this variety have proven to be heavy, reliable producers but apparently it takes a few years after planting to establish high yields.

A trial plot of disease resistant pear selections from the Appalachian research station of the University of West Virginia produced a full crop this year. Some promising ones may be worth introduction, at least for our region. **USDA 71655-014** is a rather small, red-blushed sweet pear resembling Comice in shape. **USDA 66131-021** is a medium size pear with good flavor and attractive allover russet. **USDA 78304-057**, ripe in late September, is similar to Bartlett in appearance, with Bartlett's aromatic flavor.

Pear ripening order 2000

v. early	early	mid	late	v. late
Bella de Guigno	HW 616	NY 10346	Conference	Honeysweet
Ubileen	Starkrimson	Colette	Cascade	Potomac
Harrow Delight	Rescue	Concorde	Bosc	Abbe Fetel
Pepper sdlg.	USDA 66170-047	USDA 76128-009	Forelle	Warren
	USDA 76115-010	USDA 66131-021	NY 10365	Packham's Triumph
	USDA 71655-014	Sirrine	Highland	
		Devoe	USDA 66125-035	
		B. Alexandre Lucas	USDA 67218-083	
		NY 10348	USDA 78304-057	
		Comice	Spalding	

New: A sport of **Comice** with fully russeted skin, **Taylor's Gold**, produced a few fruit for evaluation. This variety appears to have good potential and we look forward to seeing more of it in 2001. Young trees of **Cascade** so far do not show a tendency to alternate bearing. The German variety **Forelle** is named for its spotted skin resembling a trout ("forelle" in German). Trees appear to be productive but quality and storage life need further evaluation. **Honeysweet**, a Stark Nursery introduction, produced a full crop for evaluation. The fruits are small, with firm, sweet flesh, similar to **Seckel** in appearance, and somewhat larger in size. Two new introductions from Geneva, **NY 10346** and **NY 10348**, produced sample fruit for evaluation in 2000, with appearance similar to Highland and good to very good flavor ratings. **NY 10365** had only a few fruit, not enough to test. All of these selections will be evaluated further in 2001.

Proposed Discard

Blancia – Unproductive

Asian Pear

The 2000 season saw a good set of most varieties. Earliest ripening was **Hamese #1**, with sweet yellow-skinned fruit. **Ichiban Nashi** had a lot of fruit but was somewhat smaller than usual. **Shinseiki**, **Chojuro** and **Yongi** all produced good crops of well sized fruit. **Kosui** was excellent this year in production, size and quality of fruit. Trees of **Yoinashi**, damaged by *Pseudomonas* in 1999, recovered somewhat this season though yields were still somewhat below normal. **Mishirasu** produced good yields on young trees. The fruit is very large, heavily russeted and not especially attractive but good flavor and productivity recommend it for home orchards and specialty markets. Young trees of **Atago** produced very well again in 2000, with excellent finish, flavor and appearance. This is a promising variety for high quality fruit in the late season.

v. early	early	mid	late	v. late
Hamese #1	Ichiban Nashi	Shinseiki	Chojuro	Atago
		Shinsui	Yongi	
		Kosui		
		Yoinashi		
		Mishirasu		

Proposed Discard

None

Apple

In 2000 the fruit set was good in general, although certain **McIntosh** types were not as productive as usual. Hand thinning was insufficient in some cases, resulting in smaller fruit. In determining optimum harvest for a specific variety, we relied extensively on indices of starch conversion, fruit firmness, and soluble solids (sugars) as well as external color. Yields of most varieties were good and fruit quality was high.

Standard/Commercial (sweets and tarts)

v. early	early	mid	late	v. late
Red Gravenstein	Akane	Gala strains	Melrose	Braeburn & strains
Gravenstein		Honeycrisp	Red Boskoop	Fuji, standard

Jonagold & strains
Spartan

Mutsu

Gravenstein, in both red and common strains, is the classic culinary apple, unsurpassed in taste tests for applesauce. Several red strains of **Gala** are currently on trial. **Regal Gala (Fulford)** stands out for its size, uniformity, good flavor and even color, 50-70% red blush. **Royal, Ultrared, and Galaxy** strains all had very good color, as expected in small trees with high light exposure. Young trees of **Brookfield, Imperial** and **Pacific** strains produced some fruit and will be further evaluated in 2001.

Strains of **Jonagold** being evaluated for their potential in both commercial and home orchards include **Jonagored, Rubinstar, DeCoster, Jomured, King (Jored)**, and **Jonica** as well as young trees of **Crimson Jonagold**. This season all the **Jonagold** strains were slow to develop color, in terms of commercial markets, and even by the end of the season many fruits were still below the required standards. In most cases flavor and storage quality were acceptable.

Young trees of **Honeycrisp** produced a crop in 2000. This variety looks good for potential commercial production in our area. If harvested when fully ripe, fruit stays crisp in storage well into spring. Fruit picked too early will develop scald in storage, and it is recommended that storage temperatures be kept at 34-36° F for best results

Melrose and **Red Boskoop** are reliable, late keeping varieties that produced very well this year. **Braeburn** produced a good crop with little russet. **Hillwell** (red) strain yielded attractive fruit, most of which was 90% colored or better. Commercial production of **Braeburn** has some potential, especially on M9 rootstock which contributes to earlier ripening.

Japanese (mostly sweets)

v. early	early	mid	late	v. late
	Akane	Hatsuaki	Shizuka	Fuji & strains
	Beni No Mai	Sayaka	Orin	
	Tsugaru Homei	Beni Shogun (Fuji)	Mutsu	
		Senshu		

One of the longest established Japanese introductions, **Akane** is firm and crisp with a lively flavor, more acid than many Japanese types. Fruits do not store well so they are best left on the tree and harvested as they ripen over 3-4 weeks. **Homei Tsugaru** and **Hatsuaki** are good flavored and reliably productive. Homei Tsugaru is of particular interest because of its low acid; it has been doing well in direct markets. **Sayaka** produces good crops, but the large to very large size of fruit is a market drawback.

Yellow apples worth noting for good flavor and keeping quality are **Shizuka** and **Mutsu**. **Shizuka** is very productive, flavorful, and more attractive than **Mutsu**, which ripens 7-10 days later in most years. **Mutsu** is of excellent quality but may not ripen fully in cooler areas. Young trees of **Mutsu** were not as productive this year as in 1999. **Orin** is best suited to warmer climate conditions where it develops good flavor.

Beni Shogun, a new earlier ripening **Fuji** type, looks very promising for both home orchardists who want to grow **Fuji** and for potential commercial markets. It ripens two to three weeks ahead of the standard **Fuji** strains, with very attractive color and full flavor, although russetting is sometimes a problem. It also keeps well for a midseason apple.

Late strains of **Fuji (Standard, Yataka, and Akifu)** did not color well in 2000, and were not harvested until early November. Much of the fruit had water core and russetting, which would seriously reduce the quality for commercial markets.

Sweet

Ripe in the early season, **Sunrise** again proved to be a reliable, heavy producer of good quality fruit. **Aroma** is not as productive, although individual fruits tend to be large. Like many early varieties, variable color and ripeness make it necessary to do repeated pickings. Sweet apples are popular in Japan and many Japanese apples such as **Homei Tsugaru, Sayaka, Senshu** and **Fuji** (above) would fall into this category. **Gala** and its strains are also noted for sweet flavor

Cox Types (sweet-tart to tart)

v. early	early	mid	mid-late	v. late
	Alkmene	Fiesta	RubINETTE	SunCrisp
		Elista (Daliest)	Karmijn	
		Elstar	Corail (Pinova)	
		Gala strains		

Alkmene is a productive tree with medium-small, sweet-tart fruit. **Fiesta** is productive but lacks the spicy flavor of most Cox types, being rather sweet and mild; it also tends to biennial bearing. Two red strains of **Elstar** from Europe that we have evaluated since 1987 have been named. **Elista (Daliest)** and **Elton (Daliter)** both have the lively tart flavor of **Elstar**. We are keeping **Elista**, which usually has more highly red colored fruit. **RubINETTE** has very good sweet-tart flavor, but its small size and russeted finish limit its use to home orchards. **Karmijn de Sonnaville** is only moderately productive but its high acid (tartness) and high sugar content make it very popular as a gourmet apple. From the New Jersey breeding program, **SunCrisp** ([Cortland x Cox Orange Pippin] X Golden Delicious) has milder flavor, hangs well on the tree, and stores well.

Corail (Pinova) is a new introduction from Germany, ([Cox Orange Pippin x Duchess of Oldenburg] X Golden Delicious). This apple looked good in the late season. Ripe in early to mid October, it is an attractive yellow with some coppery pink blush, and crisp, sweet-tart flesh.

McIntosh Types (mostly sweet-tart)

v. early	early	mid	mid-late	late
Empress	Redmax	Marshall Mac Pioneer Mac Compact Mac Morspur Mac Improved McIntosh Jonamac	Royal Empire Empire, standard Spartan Thome Empire	NY 428

The **McIntosh** variety is very popular in the eastern States. Mac strains and crosses also adapt well to conditions here. **Jonamac**, **Spartan**, and **Empire** are all good choices. **Thome Empire** is eye-catching with its unusual blackish-red color, however, trees on M9 appear somewhat lacking in vigor. **Redcort**, a red sport of Cortland, has a unique tart flavor at first picking and retains its firmness for later pickings. **Empire** and **Redcort** store better than the other Mac types.

Compact Mac is a tree of upright-columnar habit with good quality fruit, useful where space is limited. Two new Mac types, **Morspur Mac** and **Improved McIntosh**, produced fruit for evaluation in 2000. They will be compared with earlier introductions **Marshall Mac** and **Pioneer Mac**. **Royal Court**, a sport of **Cortland**, produced its first fruit this year, with good 100% red color and very firm, rather tart flesh. **Royal Empire**, another red sport of **Empire**, also fruited for the first time. Red color, fruit finish, and flavor were all very good, and we will want to compare it with **Thome Empire** for long term productivity and color.

From the Geneva program, **NY 428** is a selection of McIntosh type, that is productive and stores well, with very good quality. We will report on whether it is likely to be named in future.

Russet Types

Russet in apples can range from a light netting of tan skin to thick, lumpy and brown. Often russet apples have denser flesh than non-russet types, and many have good storage quality. **Roxbury Russet** is one of the earliest known American apples, dating to 1639. It has good reported disease resistance, sweet-tart flavor, and is moderately productive. **Ashmead's Kernel** is a classic late keeping russet variety of very good quality, with sweet-tart flavor. **Canada Grise** (Reinette Gris du Canada) is a late ripening apple, very tart with dense, hard flesh, primarily for culinary uses. A Geneva selection, **NY 486** has lightly russeted golden skin and complex sweet-tart flavor; it is still being evaluated.

Cider Apples

Trees in a replicated plot of cider apples -selected for hard (fermented) cider production- were harvested for pressing by a group of local cider makers. The plot established in 1994 contains five trees each of the varieties **Brown Snout**, **Foxwhelp**, **Muscadet de Dieppe**, **Taylor's**, **Vilberie** and **Yarlington Mill**. Young trees were added to the replicated plot in late 1999 and included **Brown's Apple**, **Chisel Jersey**, **Dabinett**, **Harry Masters' Jersey**, **Kingston Black** and **Michelin**. For anyone who is interested in hard cider making, contact [Chuck Holland](mailto:chuck@northwestcidersociety.com) (P.O. Box 66, Port Gamble, WA 98364) of the Northwest Cider Society.

New

Recent B.C. introductions **Silken** (ripe mid September) and **Creston** (ripe early October) were topworked on mature trees in 1998 and produced good yields in 2000. Both are large yellow apples with rather russeted appearance; **Silken** rated well for flavor and crispness.

Cameo produced enough fruit to evaluate this year; it is a sweet type with an attractive pinkish red stripe.

In the **Colonnade** series, **Emerald Spire** had a full crop of orange-blushed green fruit with sweet-tart flavor and rather tender flesh texture. **Crimson Spire** was less productive than in its first season, but the dark red fruit is attractive and flavorful. **Golden Sentinel** produced its first fruit in 2000, rather small in size but with good flavor and aromatic, dense flesh. The Colonnade apples with their narrow upright growth habit are well suited for small yards and container growing.

Proposed Discard:

- Arllet** – fully evaluated, color and quality variable
- Beni No Mai** – unattractive, bland, poor quality
- Fuji, Akifu** – fully evaluated, not notably better than standard
- Fuji, Yataka** – fully evaluated, inferior to Beni Shogun in our area
- Golden Glory** – flavor bland
- Runkel** – bland flavor, not well adapted here
- Scarlet Gala** – poor color compared to other red strains, otherwise same as standard

Disease Resistant Cultivars and Selections

In December 1999 the test block that was planted in 1990 was removed and a new disease resistant plot established. Those varieties and selections that performed well in 1990-99 were moved into the new plot, as well as the young trees planted in 1998-99 that have just begun to be evaluated. Many selections that have not done well were eliminated and only the best have been kept. Young trees from the nursery were also planted into the block and a new, scab-immune cross from Canada, **Belmac**, was added to the trial.

All of the transplanted trees set a crop of fruit but due to the stress of transplant, in most cases the fruit was untypical and of lower quality. For that reason, though bloom and harvest dates were recorded, no fruit evaluation was made in the 2000 season. Regular evaluations will be resumed in the 2001 season.

Listed below are the disease resistant cultivars and selections included in the new block (*new variety or selection .)

Belmac*	CQR-12T-50*	HWR-19T-18	NY 81209-69*
Enterprise	Coop 33*	NY 65707-19	NY 81204-42*
Pristine	Coop 40	NY 66305-289	OSU 31-19
Rosy Glow (Biringer 101)	Coop 41	NY 73334-35	P15R-3T-86

Vanderhoek*
CLR-20T-22
CLR-20T-60*
CLR-30T-30
CMR-2T-13
CQR-10T-17*

Coop 42
Coop 43*
Coop 44*
HER-4T-16
HER-3T-139

NY 75413-30
NY 75414-1
NY 75441-67
NY 79507-72*
NY 79529-70*

PAR-4T-215
PAR-12T-101
PSWR-11T-48
PWR-11T-128
TNR-10T-11

Unusual Fruit

With the help of a special donation in 1997, we initiated a planting of unusual fruit for evaluation that we hope to increase in future. We are testing a number of uncommon kinds of tree and bush fruit to see if they are well adapted to western Washington conditions, and note any specific cultural needs that may apply to growing them in our area. Among the fruit kinds that have been planted are figs, kiwi varieties (both *Actinidia deliciosa* and *A. arguta* clones), black, red and white currants, persimmons, paw paws, and seedless grape varieties. Some of the uncommon bush fruits include aronia, mulberry, elderberry, honeyberry, sea buckthorn, mountain ash, cornelian cherry, azerole, and sorbus.

In 2000 both **aronia** and **sea buckthorn** produced fruit; the latter in particular appears to be very productive even when young. The **sea buckthorn** fruits are yellow-orange, small (about 3/8"-1/2" in length) and oval-cylindrical; the orange juice is subacid to tart and very similar in flavor to citrus. **Aronia** fruits were sought out by birds, so any plantings should probably be netted.

Fruit was produced on several varieties of the **cornelian cherry** (*Cornus mas*) and we will compare the varieties in 2001 for fruit quality. Some of them are very flavorful, though the plants as yet are not very productive. The plot of **currants** in general produced well, and though harvest data was not taken, fruit was picked by members at the harvest days.

We have also been managing trial plots of strawberry, raspberry, and blueberry varieties and selections, which are part of the research program of Dr. Pat Moore at the Puyallup research station. Anyone interested in the results of these projects can obtain specific reports from him.. Annual project reports are also available on the Fruit Horticulture web site – see "Berries."

Ornamental Crabapple

The evaluation of ornamental crabapples for disease resistance begun in 1984 continues with new additions. A rootstock trial initiated in 1997, involving a test of several proven disease resistant varieties on different size controlling rootstocks, will be concluded this year due to lack of continued funding. We had hoped to conduct this trial for a couple more years to gather additional data. However, the data gathered so far will be analyzed and any significant conclusions reported.

Among the most promising recent introductions is '**Adirondack**'. It has excellent disease resistance, an upright growing habit, and persistent pinkish orange fruit to add winter color. The flowers are white. '**Lancelot**' (white bloom, small yellow fruit) is a good choice for small sites; its compact dwarf habit adapts well to patio and container growing. Two consistently high rated varieties are **Golden Raindrops** (yellow fruit) and **Evereste** (large red orange fruit). Both are immune to scab. '**Silver Moon**' is a late blooming white flowered variety that has very good scab resistance. The tree is large and vigorous, well suited to parks and larger landscape sites. '**Prairifire**' is the best of the pink-flowered crabapples, though somewhat less resistant to scab.

Several other pink-flowering crabapples are well adapted to this climate. '**Louisa**' has soft pink flowers and a strongly weeping habit, useful as a specimen tree. '**Louisa**' grafted 4'-5' high on the rootstock is an ornamental tree similar to weeping cherry. For a low, broad spreading effect (about 6' in height), '**Candymint Sargent**' is a good choice, with purple-bronze foliage and darker-edged pink flowers. '**Prairie Maid**', with pink flowers contrasting to bronze-green leaves, is very attractive in spring and summer. The red fruit is often taken by birds.

We are still seeking a pink flowered tree with true columnar habit and good disease resistance. '**Maypole**', in the Colonnade series of upright apples, has attractive deep pink flowers and bronze green leaves, but the dark red fruits may be too large for street ornamental uses.

Several new acquisitions from the National Crabapple Evaluation Project and other sources were added to the trial in 1999-2000. These are: '**Tea Crab**' (*M. hupehensis* from NCEP), '**Cinderella**' and '**King Arthur**' (Lake County Nursery), '**Guinevere**' and '**American Spirit**' (Hilltop Nursery) and '**Pink Princess**' (J. Frank Schmidt Co.).

Some seedlings of local origin may have potential for future development. **Pink Cloud** has pink double flowers, bronze leaves and large, tart red fruit. It also appears to have some resistance to scab. Another seedling cross is a semi-double, white flowered tree with narrowly upright habit which would be suitable for street side ornamental planting, especially as it sets little or no fruit to drop and make a mess. A cross of Alkmene X Prima made here at the station in 1990 resulted in an upright-spreading crabapple with scab immunity; it has white flowers and large, persistent bright yellow fruit, tart but edible. Pollination trials in 1998 showed that this seedling will pollinate both Jonagold and Fuji. These seedlings are being evaluated for possible introduction.

Acknowledgments

The assistance and support in our tree fruit projects provided by the members and board of the [Western Washington Fruit Research Foundation](#), the [Western Cascade Fruit Society](#), the Seattle Tree Fruit Society, and those at the Northwest Agricultural Research Foundation, the [Washington State Nursery and Landscape Association](#) and local fruit growers are most gratefully acknowledged. The contribution of nurseries that have donated trees and materials, and the many individual volunteers who have given their time and help are also very much appreciated, and recognized with our thanks.