

MASSACHUSETTS BERRY NOTES

Dec. 2001, Vol. 13, No. 20

<http://www.umass.edu/fruitadvisor/berrynotes/index.html>

Volume 13-- 2001

Berry Notes is compiled and edited by Sonia Schloemann. Authors and sources are cited for all articles. Publication is funded in part by the UMass Extension Agroecology Program and grower subscriptions. A text version can be e-mailed to you if you contact Sonia Schloemann at 413-545-4347, sgs@umext.umass.edu. Please cite the original source if reprinting information.

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Message from the Editor

New England Vegetable and Berry Conference and Trade Show: The NEVBG Conference and Trade Show on Dec. 11 – 13, 2001 was a resounding success! There were over 1,100 New England growers in attendance with a total of over 1,400 attendees over the 3 days, a record on both accounts! There were 5 small fruit sessions; each filled to overflow capacity. We heard researchers and growers present information on up-and-coming production practices, the latest pest management strategies, recommended old and new varieties, nutrition, and pollination. There were sessions on Organic Production, Managing Labor, Biotechnology, Soil Health and Food Safety. There was something for everyone from new-entry farmers to long-established growers. The Trade Show was also a huge success with over 70 vendors showcasing scores of different products and services for our farmers. Thanks to everyone who worked to make this year's conference a grand success. For those of you who weren't able to come, a second printing of the proceedings is being arranged. Please call me (soon) if you would like to order a copy (413-545-4347). The cost is \$15 and contain write-ups of most of the talks that were presented.

Subscription Renewals: This issue of Berry Notes contains the renewal form for 2002 subscriptions to Massachusetts Berry Notes. The number of subscriptions for the print version of this newsletter has declined over the past several years. Email subscriptions have increased and Berry Notes is now available on-line at the UMass Extension Fruit Team web-site <http://www.umass.edu/fruitadvisor/berrynotes/index.html>. Electronic versions of this newsletter are available for free. The cost of subscription to the print version will remain at \$30 per year. This covers printing, handling, and postage costs associated with its production. Please send in your renewals as soon as possible so delivery is uninterrupted.

Variety Updates: This issue of Berry Notes is focused on varieties, since many of you are placing orders for next spring. Enclosed is a copy of the Cornell Small Fruit Nursery Guide to help you locate the varieties that you want to plant.

Variety Reviews for 2001 Strawberry Varieties

David Handley, Univ. of Maine Cooperative Extension

Early Season

Earliglow: An early berry of high quality. Fruit is firm with excellent flavor and color. Yields may be low in the

Northeast. Fruit size tends to decrease as season progresses. Plants are vigorous runner producers and are resistant to red stele and verticillium wilt.

Mohawk: Avery early ripening. High quality fruit with good flavor. Yields may be low in the Northeast. Plants are vigorous and produce many runners. Resistant to red stele and verticillium.

Sable: A recent release from Nova Scotia. Medium to large fruit. Flavor is very good, but fruit are soft. Plants are vigorous, with some resistance to red stele.

Veestar: a popular Canadian introduction. Very productive, good flavor, but fruit tends to be soft. Plants are vigorous but have no know resistance to red stele or verticillium.

Northeaster: Large, firm fruit with strong flavor. Good yields for an early variety. Shy runner producer, but plants are vigorous and perform well on heavy soils. Resistant to red stele and verticillium.

Early-Midseason

Honeoye: A New York release. Generally early ripening. High yielding. Large, very attractive fruit with firm flesh, but flavor may be tart or flat. Plants are vigorous and produce many runners. Very susceptible to red stele and no know resistance to verticillium.

Annapolis: From Nova Scotia. Large fruit with good flavor and color, but somewhat soft. Very vigorous, free-running plants. Resistant to red stele.

Cornwallis: From Nova Scotia. Very productive. Medium-sized fruit with good flavor and color. Plants are vigorous and produce runners freely. Resistant to red stele.

Catskill: Large, bright red fruit with good flavor, but very soft. Plants are vigorous and very hardy, with resistance to verticillium, but no resistance to red stele.

Mira: A recent release from Nova Scotia. Large, light-red fruit with good quality. Plants have high yield potential and are vigorous with some resistance to red stele root rot and leaf diseases.

Midseason

Cavendish: From Nova Scotia. Productive. Large, firm fruit with good flavor, but with an uneven ripening habit. Plants are moderately vigorous. Resistant to red stele and verticillium.

Kent: From Nova Scotia. High yielding. Large, attractive fruit with very good flavor. Plants are vigorous and good runner producers, but beds tend to run down after two or three seasons. No known resistance to red stele or verticillium.

Surecrop: Medium-sized, firm fruit of fair quality. Plants have moderate vigor but are resistant to red stele and verticillium wilt.

Midway: Large, firm fruit with good flavor, color and high yields. Vigorous plants that make runners freely. Resistant to red stele and verticillium wilt.

Guardian: Large berries, rough, and sometimes hollow. Light red to orange color. Fair flavor. Plants runner well and are resistant to red stele and verticillium.

Redchief: Glossy, attractive, medium-sized fruit with firm texture and flavor. Good production. Plants are vigorous but prefer heavier soils. Resistant to red stele and verticillium.

Jewel: From New York. Large, glossy, attractive fruit with firm texture. Productive. Moderate vigor and runner production. No known resistance to red stele or verticillium.

Mid-Late Season

Seneca: From New York. Large, somewhat irregular fruit, very firm and bright red. Flavor is pleasant but mild. Plants are only moderately vigorous and have no resistance to red stele or verticillium.

Allstar: From the United States Department of Agriculture. Berries are large, conical and light red to orange with mild, sweet flavor. The plants are vigorous and make runners freely. Resistant to red stele and verticillium.

Cabot: From Nova Scotia. Very large fruit, bright red, firm, but with tender skin. Plants need high vigor. Plants have some resistance to red stele, but the fruit is susceptible to gray mold.

Sparkle: Excellent flavored fruit, but dark red and somewhat soft. Fruit size tends to decrease as season progresses. Plants are vigorous, copious runner producers with some resistance to red stele.

Glooscap: From Nova Scotia. Medium to large fruit, firm and dark red. Good flavor. Susceptible to green petal disease, red stele and verticillium.

Mic Mac: A Nova Scotia introduction. Good yields. Large, light red fruit, firm. Plants are vigorous and produce many runners. No know resistance to red stele or verticillium.

Mesabi: From Minnesota. Large fruit and good yields. Vigorous plants, resistant to red stele and leaf spot.

Late Season

Winona: A recent release from Minnesota. Large, firm, light-red fruit. Moderately vigorous plants with resistance to red stele root rot and tolerant of most leaf diseases.

Lateglow: From the United States Department of Agriculture. Medium to large, bright red, attractive fruit. Firm with good flavor. Plants only moderately vigorous, but resistant to red stele and verticillium. May lack adequate hardiness for northern New England.

Bounty: Uniform fruit with good flavor. Plants show fair vigor and runner production. No resistance to red stele or verticillium.

Day-Neutral

Tribute: From USDA. Medium size fruit, good quality. Plants are vigorous, productive and runner freely. Resis-

tant to red stele and Verticillium wilt. Most dependable of the day-neutral types in New England.

Tristar: From USDA. Produces medium to small, flavorful fruit. Less vigorous than Tribute, and lower yielding, but slightly better quality. It is resistant to both red stele and Verticillium wilt. Excellent for use in patio gardens and/or hanging baskets.

Seascape: From California. Medium to large fruit, good quality, but tender skin. Long harvest season. Becoming popular for annual plasticulture systems in the Northeast. No resistance to red stele or Verticillium wilt.

(Source: 2001 NEV&BG Conference and Trade Show Proceedings)

Bramble Varieties:

David Handley, Univ. of Maine Cooperative Extension

Red Raspberries, Summer bearing

Boyne: From Manitoba. Ripens early, and has excellent winter hardiness. Plants are spiny and produce many suckers. Fruit is small to medium in size, somewhat dark and soft, but with fair flavor and good freezing quality. Susceptible to anthracnose. Typically yields very well. Highly recommended for colder sites.

Canby: From Oregon. Ripens midseason, only moderate hardiness. Plants are tall, nearly thornless, and moderately productive. Fruit is medium to large, firm, bright red with excellent flavor. Buds may winter kill in cold climates.

Carnival: From Ontario. Mid to late season ripening, moderately hardy. Plants are moderately vigorous; fruit is medium-sized and flavor is good.

Comet: Canadian release. Ripens early to midseason, moderately hardy. Plants tall, some spines. Some resistance to anthracnose and spur blight. Fruit are medium-sized, bright red, and sweet, but soft.

Encore: Recent release from New York. Ripens late season, with long harvest season. Hardy and free suckering with vigorous, erect, nearly spineless canes. Fruit are medium-large and firm with good flavor. Encore shows a moderate tolerance to Phytophthora root rot.

Festival: From Ontario. Ripens midseason, hardy, very productive. Short plants with few spines. Fruit are medium-sized, bright red, firm, with good flavor. Very susceptible to rust, but less susceptible to mosaic virus and spur blight.

Gatineau: From Ontario. Very early ripening, but fruit is soft and lacks flavor. Low vigor, but very hardy.

Haida: From British Columbia. Ripens mid to late season. Hardest of the Pacific Northwest types. Vigorous plants with moderate spines. High yielding. Fruit are medium-sized, with good flavor; berries are firm, sweet, and freeze well. For trial in Maine.

Hilton: A New York release. Ripens midseason, moderate hardiness. Plants are tall and vigorous, and moder-

ately productive. Fruits are quite large, attractive, dark red, firm, with fair to good flavor. May be difficult to pick unless fully ripe.

K-81-6: From Nova Scotia. Ripens mid-late season, very hardy. Vigorous, tall canes. Medium-large, bright red fruit are firm with food flavor.

Killarney: From Manitoba. Sibling of Boyne. Early ripening, slightly behind Boyne. Plants are very hardy, spiny, produce many suckers, and are susceptible to mildew. Plant is short to medium. Fruit is medium-sized, but very bright red. Flavor and freezing quality are good, but berry may soften in warm weather. Susceptible to anthracnose. Highly recommended for colder sites.

Latham: A Minnesota release. Midseason ripening, very hardy. Plants are vigorous with few spines. Small fruit with good color, but crumbly with only fair flavor. Ripens over a long period of time. Less susceptible to viruses than some varieties. Recommended for colder sites.

Lauren: A recent release from Maryland. Mid-late season ripening, only moderate hardiness. Tall, vigorous canes. Fruit are very large and fairly firm with fair flavor.

Madawaska: From Ontario. Very early ripening. Dark red fruit, but poor flavor. Good freezer. Plants are hardy, susceptible to mildew.

Newburgh: Released from New York. Midseason ripening, hardy. Plants tall but not highly vigorous. Some spines. Partially resistant to common cane diseases. Fruits are medium in size, light red with good flavor. May be crumbly, and tends to ripen unevenly.

Nordic: Hardy, medium fruit size and productive. Good quality fruit. Exhibits less anthracnose than others.

Nova: From Nova Scotia. Very hardy plants with good vigor and few thorns. This variety appears to be resistant to most common cane disease. Fruit ripens midseason, is medium sized, firm, bright red, and somewhat acidic.

Reveille: From Maryland. Early ripening, hardy. Plants are vigorous, producing many suckers. High yielding. Fruits are

medium to large with good flavor, but very soft. Poor shipping and freezing quality.

Sentry: A vigorous cultivar with large firm fruit. Fruit is exceptionally attractive and flavorful. It is medium in winter hardiness and productivity.

Taylor: From New York. Late ripening, moderately hardy. Plants are vigorous with some spines. Very susceptible to mosaic virus. Leaf spot and fungal diseases. Fruit is medium to large with excellent flavor, good color and firmness.

Titan: A New York release. Mid to late season ripening, only moderate hardiness. Large canes, suckers emerge mostly from the crown, i.e., slow spreading. Extremely productive. Plants have very few spines, but are susceptible to crown gall and Phytophthora root rot. Fruits are extremely large and dull red, with mild flavor. Difficult to pick unless fully ripe.

Trent: Early, hardy and productive. Canes medium in height and spiny, susceptible to mildew. Fruit is a medium to dark red, crumbly and soft.

Red Raspberries, Everbearing (fall-fruiting)

Amity: From Oregon. Second (primocane) crop ripens early-mid season for everbearing types. Moderately vigorous canes with spreading habit, very few spines. Some resistance to cane diseases and root rots. Fruit are medium sized, with good color and mild flavor, firm.

August Red: From New Hampshire. Earliest ripening of the primocane-fruiting types. Canes are short and spiny, with moderate vigor. Fruit is medium-sized, somewhat rough, and mildly flavored. Recommended for most sites in Maine.

Autumn Bliss: From East Malling, Scotland. Early ripening primocane crop. Moderately vigorous canes with few spines, suckers develop near the crown. Productive. Fruit is large and highly flavorful.

Autumn Britten: Recently released from East Malling, Scotland, similar to Autumn Bliss. Early ripening primocane crop. Limited cane production, close planting recommended. Medium to large fruit with very good quality.

Caroline: A recent release from Maryland. Mid-early ripening primocane crop. Vigorous with tall canes. Large, firm fruit. Ripens over a long harvest season. Moderately hardy for floriculture crop.

Dinkum: From Australia. Similar to Autumn Bliss, early ripening primocane crop on moderately vigorous canes. Large, firm flavorful fruit.

Fall Red: From New Hampshire. Early ripening primocane crop. The medium to short canes are very vigorous, and produce many suckers. Moderately spiny. Fruit size in medium. Good flavor, but soft. Recommended for most sites in Maine.

Heritage: A New York release. Primocane crop ripens relatively late. Tall, rugged canes with prominent thorns. Very high yielding. Fruit size is medium. A good color and flavor, firm, good freezing quality. Due to the late ripening of the primocane crop, this variety is not recommended for regions with a short growing season, i.e., frost before September 30th or cool summer temperatures.

Prelude: A recent release from New York. Although everbearing, primarily grown for its very early ripening floriculture (summer) crop. Plants are vigorous and sucker freely. Medium-sized fruit, dark red, good quality. Primocane crop ripens late.

Ruby: (Heritage x Titan) From New York. Primocane crop ripens slightly ahead of Heritage. Plants moderately vigorous, good productivity. Fruit is large, but flavor is mild. Susceptible to root rot. Suggested for fresh market or shipping in areas with longer, warmer growing seasons.

Yellow Raspberries, Everbearing (fall fruiting)

Anne: A recent release from Maryland. Mid to late season ripening primocane crop. Vigorous, tall canes. Medium to large light yellow fruit, variable quality.

Fall Gold: From New Hampshire. Primocane crop ripens relatively early. Canes very vigorous, produce many suckers. Fruit is medium-sized, yellow with a pink blush, soft, but with excellent flavor. Poor for freezing or processing.

Goldie: Yellow sport of Heritage and similar in ripening season, productivity and growth habit. Fruit actually are more of a pink color when ripe and are prone to sun bleaching.

Kiwi Gold: New Zealand. Another yellow sport of Heritage and similar in ripening season, productivity and growth habit. Good fruit quality, develops pink blush when over-ripe.

Purple Raspberries, summer bearing

Purple raspberries are not adequately hardy to be commercially viable in most of northern New England.

Brandywine: A New York release. Ripens later than most red varieties. Canes very tall with prominent thorns, suckers from crown only, will not fill in. Susceptible to crown gall, but partially resistant to many other diseases. Fruit are large, reddish-purple, and quite tart. Best used in jams or jellies.

Royalty: From New York. The best purple raspberry. Extremely productive. Ripens late. Canes are tall and vigorous, with thorns. Immune to the large raspberry aphid, which decreases the probability of mosaic virus infection, but plants are susceptible to Phytophthora root rot and crown gall. Fruit are large, reddish-purple, irregular. Fruit tends to be soft, but sweet and flavorful when eaten fresh.

Success: From New Hampshire. Ripens mid to late season. Canes not as vigorous as other purple types and produces few suckers, but is very hardy. Difficult to propagate. Fruit smaller than other purple varieties, but yields quite well. Dark purple color and excellent flavor. Good fresh quality and for jams or jellies.

Black Raspberries

Black raspberries may winter kill to the snowline if temperatures drop to -10°F in combination with desiccating winds. They are also quite susceptible to virus infections, Verticillium wilt and rust. They are not considered commercially viable for northern New England.

Allen: Early-midseason. Relatively hardy. Plants are vigorous and high-yielding. Fruit ripens uniformly, short harvest period. Fruit are the largest and most attractive of the black types, but flavor is mild.

Blackhawk: From Iowa. Vigorous plants, relatively hardy and productive. Fruit is medium-large, glossy, with good flavor.

Early Sweet: From USDA (Maryland). Vigorous, productive plants. Firm fruit is medium to large-sized and sweet. Early season. For trial.

Jewel: A New York Release. Midseason. Possibly the hardiest black raspberry variety. Plants are vigorous, erect, and productive. Appears to have somewhat more disease resistance than other varieties. Fruit is firm, and glossy with good quality.

Blackberries, Thornless (trailing)

Thornless blackberries have vigorous canes, which must be trellised. They are not hardy below -10°F and are not commercially viable for northern New England. They ripen later than most red raspberries.

Chester: From USDA (Maryland). Late season ripening, possibly hardier than other varieties. Resistant to cane blight. Large, high quality fruit with good shelf life.

Dirksen: Late season, relatively hardy. Plants are very vigorous. Resistant to anthracnose. Fruit are large, firm, and slightly tart with good flavor.

Hull: Mid to late season ripening. Fruit are very large, firm, holds color under high temperatures. Sweeter than other varieties.

Triple Crown: From USDA (Maryland). Vigorous, semi erect type plant, somewhat sturdier than other varieties. Productive, midseason ripening. Large fruit with excellent flavor.

Blackberries, Thorny (erect)

Erect blackberries have tall, rugged canes with prominent thorns. The canes have very limited hardiness. They are not recommended for commercial production in northern New England.

Darrow: From New York. Hardest blackberry variety. Canes are vigorous with large thorns. Good yields with long harvest season. Fruit are large and glossy, excellent quality.

Illini: From Illinois. A new, hardy, thorny blackberry with good quality fruit. Suggested for trial where Darrow can be grown successfully.

(Source: 2001 NEV&BG Conference and Trade Show Proceedings)

Highbush Blueberries Variety Update (Michigan)

Jim Hancock and Eric Hanson, Michigan State University

Characteristics of Common Blueberry Varieties in Michigan

Cultivar	Season	Yield in Michigan	Size	Fruit Quality			
				Color	Scar	Firmness	Flavor
Berkeley	Midseason	moderate	large	light blue	large, but dry	firm	fair, low acid
Bonus	Midseason	moderate	very large	light blue	small	firm	good
Bluecrop	Midseason	moderate to high	medium to large	light blue	small	very firm	good, tart
Bluegold	Late	high	medium	light blue	small	firm	good
Bluehaven	Early mid-season	low to moderate	medium	light blue	small	firm	fair
Bluejay	Early mid-season	moderate to high	medium	light blue	small	very firm	mild, slightly tart
Blueray	Midseason	moderate to high	large	medium blue	medium	firm	good
Bluetta	Very early	erratic; moderate to high	medium	medium blue	medium	medium	fair
Brigitta	Late	low to moderate	large	light blue	small	very firm	good
Burlington	Late	moderate to high	medium	light blue	small	firm	good
Chippewa	Midseason	moderate	medium	v. light blue	small - medium	medium - firm	good
Collins	Early mid-	moderate	large	light blue	small	firm	good

	season						
Coville	Late mid-season	moderate	very large	medium blue	medium	firm	good, tart
Darrow	Late	low	large	light blue	small	firm	excellent
Duke	Early	high	large	medium blue	small	firm	good
Earliblue	Very early	low to moderate	medium	medium blue	medium	medium	good
Elliott	Very late	very high	medium	light blue	small	very firm	good
Jersey	Late mid-season	moderate to high	medium	light blue	medium	firm	fair
Lateblue	Very late	moderate	medium to large	dark blue	medium	firm	fair, tart
Little Giant	Midseason	high	very small	medium blue	medium	medium	good
Nelson	Late	high	large	light blue	small	firm	good
Northblue	Early mid-season	low - moderate	medium	dark blue	medium	medium	fair, acid
Northcountry	Early mid-season	low	very small	light blue	small - medium	soft	good, sweet
Northland	Early mid-season	very high	medium	medium blue	medium	soft	fair
Northsky	Midseason	low	very small	light blue	small - medium	soft	good, sweet
Patriot	Early mid-season	high	large	medium blue	small	firm	excellent
Polaris	Early	moderate	medium	light blue	small	firm	excellent
Rancocas	Midseason	moderate to high	small	dark blue	medium	firm, can crack	good
Rubel	Midseason	moderate to high	small to medium	medium blue	medium	firm	fair
Sierra	Midseason	low to medium	medium	light blue	small	firm	good
St. Cloud	Early	moderate	medium to large	dark blue	medium-large	medium	excellent
Spartan	Early mid-season	moderate to high	large	light blue	medium	firm	excellent
Sunrise	Early mid-season	low	medium	medium blue	medium	medium	good
Toro	Midseason	moderate	large	light blue	small	firm	good
Weymouth	Very early	moderate	medium to small	dark blue	medium	soft	poor

(Source: <http://www.msue.msu.edu/fruit/bbvarbul.htm>)

Grapes

Table Grape Varieties for Cool Climates; Seedless Table Grapes

(<http://www.nysaes.cornell.edu/hort/faculty/reisch/bulletin/table/>)

Bruce I Reisch, David V. Peterson, and Mary-Howell Martens Cornell University

Grape breeders have responded to consumer preferences for seedless grapes with the development of numerous improved varieties. The seedless trait in grapes was originally derived from cultivars of ancient origin such as Thompson Seedless and Black Monukka. Most seed-

less grapes suitable for the eastern United States are descended from crosses with these two cultivars. Because the trait originated in cultivars not suitable for surviving the cold temperatures of New York winters, many seedless varieties are not sufficiently winter hardy, although they are much

hardier than their seedless parents. More recently named seedless cultivars (*Canadice*, *Einset Seedless*, *Reliance*, and *Vanessa*) represent a distinct improvement in cold hardiness. Breeding programs in New York, Ontario, Arkansas, and elsewhere continue to produce seedless selections with improved hardiness and quality. Promising selections from the New York program are available for test purposes only.

The degree of seedlessness varies greatly among seedless grape varieties. Most seedless grapes have vestigial seed traces that range in size from very small to large and noticeable. Seed traces in berries of the same variety may vary greatly in size and in the hardness of their seed coats. Climate is also known to affect seed trace size. Occasionally the seed traces in some seedless grapes are large enough to be bothersome to consumers. Notes on seed remnant sizes are given for varieties in which problems exist.

Canadice is more winter hardy than most seedless grapes, although trunk injury has occurred on some sites. It produces medium clusters with small red berries that are similar to Delaware in flavor and appearance. With cordon training systems and careful management, *Canadice* clusters may average 0.5 lb., and the vines can be extremely productive. Fruit rot is a problem in wet years because the clusters are excessively compact. Cluster weight = 0.50 lb. Berry weight = 1.6 g

Concord Seedless, though similar in flavor and texture to Concord, is unrelated. The clusters and berries are much smaller than those of Concord. The fruit matures earlier, has high flavor, and makes excellent pies and preserves. Productivity is erratic, and it is not recommended for commercial planting. In warm years, the variety produces fully developed seeds.

Einset Seedless (Plant patent 6160) is a winter-hardy, red seedless grape with a unique, strawberry-like flavor. The medium-sized clusters produce bright red, ovoid berries that have good storage potential until the end of November. The clusters respond well to gibberellic acid or cane girdling to improve cluster compactness and berry size. The skin is slightly tough and adheres to the tender flesh. Cultural problems include susceptibility to fungal diseases and a seed remnant that is occasionally noticeable. Along with *Vanessa*, *Einset Seedless* probably has the most commercial promise of the red seedless varieties that can be grown successfully in New York. Cluster weight = 0.32 lb. Berry weight = 2.3 g

Himrod, produced from a cross between Ontario and Thompson Seedless, is the most successful table grape released from the Cornell University grape breeding program (1952). It produces large bunches of white seedless grapes with excellent, honeylike flavor and melting, juicy texture. The clusters are loosely filled, but cane girdling, gibberellic acid treatments, or thinning may be used to increase cluster compactness and improve berry size (Zabada, 1992). The brittle rachis may

break when handled, and the berries may shell in storage. The rachis is also subject to bunch stem necrosis, a poorly understood disorder that causes a shriveling of the cluster stem, often just before harvest. Despite these cultural defects, *Himrod* is currently the most commercially important of the seedless grapes grown in New York. Cluster weight = 0.36 lb. Berry weight = 2.1 g

Interlaken Seedless is an early-ripening seedless grape with a strong, American flavor. The clusters are medium sized and compact with small, white berries that ripen very early. This cultivar was derived from the same cross as *Himrod*. Birds often cause crop loss. Cluster weight = 0.27 lb. Berry weight = 1.5 g

Lakemont was also produced from the same cross as *Himrod* but has a milder flavor and more compact clusters of small to medium-sized berries. Cluster thinning prevents overcropping. Bunch rot is often a problem. Cluster weight = 0.48 lb. Berry weight = 1.7 g

Marquis was named and released at Geneva in 1996. Clusters are very large, medium compact, and attractive, with large, round, yellow-green berries (3.5 - 5.0 gm/berry). Texture is melting, and the taste is very flavorful. Ripe fruit holds well on the vine, with the flavors going from a mild fruity flavor when first ripe, to a stronger *Labrusca* flavor two weeks later. Gibberellic acid treatment is not recommended, but well-timed cluster thinning and cane girdling can increase berry size and improve cluster compactness. Vines are moderately hardy, medium in vigor and productive.

Mars (Plant patent 5680), a release from the University of Arkansas, is a vigorous, blue seedless grape. The flavor is mildly *labrusca*, similar to *Campbell's Early*, and the berries are slipskin (having a tough skin that separates readily from the pulpy flesh). Clusters are medium sized, cylindrical, and well filled. Hardiness has been good at Geneva, New York, and the vines are resistant to several major diseases. Vines may bear fruit precociously, and production should be controlled on young vines to prevent delays in establishment. *Mars* has been recommended in Arkansas as a home garden grape with limited potential for commercial marketing. Cluster weight = 0.40 lb. Berry weight = 2.6 g in Arkansas

Reliance (Plant patent 5174), also from the University of Arkansas, produces large clusters of round, red, medium-sized berries. The skins are tender and the flesh is melting in texture, with a sweet *labrusca* flavor. Coloring may be poor in some years, and fruit often crack in wet seasons. Cold hardiness is among the highest of the seedless varieties. Cluster weight = 0.62 lb. Berry weight = 2.3 g in Arkansas

Remaily Seedless, developed by the New York State Agricultural Experiment Station, produces large clusters of oval seedless berries with firm texture. The flavor is neutral and mildly fruity. The clusters are very attractive in appearance but are subject to bronzing where exposed to sunlight, and the vines are only moderately hardy. This variety is recommended for backyard gardeners interested in a neutral-flavored, European-type grape that is more winter hardy than

commercially grown California seedless grapes. Cluster weight = 0.68 lb. Berry weight = 2.7 g

Saturn (Plant patent 6703), another University of Arkansas release, produces large, crisp berries on medium-large conical clusters. The berries are bright red with adherent skins and a mild flavor. Vines are precocious and moderately hardy at best and must be cluster thinned. In some years the seed remnants are very noticeable. Saturn has good storage potential and may be processed into an acceptable blending wine. Cluster weight = 0.68 lb. Berry weight = 3.0 g in Arkansas

Suffolk Red produces medium to large clusters of mild-flavored red berries. The clusters are loose but may be made more compact with the use of gibberellic acid or cane girdling. Winter damage is often a problem except on Long Island, where the variety is successfully cultured. Excessive vine vigor may occur following poor crops and winter bud damage. Cluster weight = 0.32 lb. Berry weight = 2.7 g

Vanessa was developed by HRIO, Canada, and is a red desert grape of excellent quality. The vine is moderately vigorous and among the hardiest of seedless grapes. Grafting may be desirable on many sites to increase vine size (vines grafted on Teleki 5C at trials in Fredonia, New York, however, have shown poor fruit set with very small berries). The seed remnant is usually large and soft; when noticeable it is sometimes a cause for limited marketability. Berries are medium in size on medium, well-filled clusters. Storage potential is good. The flavor is mild and fruity, and berry texture is firm to crisp. The fruit quality is among the best of the red seedless types.

Venus, also from the University of Arkansas, is a vigorous and productive blue-black seedless grape. The medium-large clusters ripen early, producing large berries with mild *h-brusca* flavors. In New York, the seed remnants are hard and noticeable, and fruit rot has been a problem at harvest. Fruit quality is only fair. Cluster weight = 0.60 lb. Berry weight = 2.9 g

Pesticide Update

EPA Restricts Use of Guthion and Imidan

Rick Foster, Purdue University

The EPA has recently announced their plans to further restrict the use of two commonly used fruit insecticides, azinphosmethyl (sold as Guthion and Azinphosmethyl) and phosmet (sold as Imidan). These restrictions represent a continuation of the implementation of the Food Quality Protection Act. Previous decisions have eliminated most or all uses of chlorpyrifos (Lorsban) and methyl parathion (Penncap M).

The registrations of 28 crops are being cancelled for azinphosmethyl, with 7 crops being phased out over 4 years, and 8 crops allowed to be treated on a time-limited basis for another 4 years. Some of the crops cancelled are quince, nectarines, plums, prunes, grapes, and strawberries. Tart cherries and peaches are included in the groups that will be phased out over 4 years. Time-limited registration for 4 years will be allowed for apples, crab apples, blueberries, sweet cherries, pears, and caneberries. Apple growers will be limited to 3.5 lb ai/A per season, and a minimum of 7 days between applications. The reentry interval (REI) will be 14 days for all activities. The preharvest interval (PHI) will be 14 days for rates < 1.0 lb ai/A and 21 days for higher rates. In addition, there will either be a prohibition against using Guthion in *pick your own* operations, or restricting use to early season or a 30 day PHI for PYO operations. There will also be other restrictions to protect applicators and prevent drift and non-target effects.

Registrations for Imidan will be cancelled for domestic pets, household ornamentals and household fruit trees. Imidan was frequently recommended for homeowners to use on fruit trees, so this cancellation will have a major

impact on home fruit growers. Crops that can be treated during a 5-year time-limited registration include apples, apricots, blueberries, crab apples, grapes, nectarines, peaches, pears, plums, and prunes. Registration will be unchanged for 28 crops, including cherries. As best I can determine at the current time, the new label for Imidan will take effect on June 1, 2002. There will apparently be no limit on how long product with the old label can continue to be used in accordance with that old label.

So, what does this all mean? For some time, I have been warning apple growers that they should prepare for the time when they would no longer have organophosphate insecticides available to use on apples. I believe that these decisions are additional steps toward that time when the OPs won't be available. For the time being, it appears that growers will be able to make about 3 applications of Guthion each year and should be able to use Imidan to finish off the season. PYO operations may not have Guthion as an option. The 14-day REI will cause apple growers considerable problems. You will have to be very careful how you schedule applications of Guthion to allow you to enter your orchard and take care of activities.

As for me [R. Foster], I will continue to test alternatives to the OP insecticides. There are a lot of them available right now. However, they are going to be more difficult to use than Guthion and Imidan as far as timing and targeting specific insects. We all need to learn more about them. I would encourage growers to do some experimenting of their own. Insecticides don't always act the same way when an entire block is sprayed as when small plots of 1-3 trees are used. Growers who would like to look at some of these new materials are

welcome to contact me for advice and assistance. I encourage all of you to attend the Hort Congress in January and the winter and spring fruit meetings. We can discuss where we are headed more thoroughly at those meetings.

(Source: *Facts for Fancy Fruit 2001-14, November 21, 2001*)

Switch Fungicide Labeled for Use in Strawberries

J. Dan Smith

Syngenta Crop Protection

Syngenta has received a section 3 federal registration for the use of SWITCH 62.5 WG fungicide for control of Botrytis cinerea in strawberries. A copy of this label, as well as all other Syngenta labels, may be obtained at the

Syngenta web site www.Syngentacropprotection.com just click on labels on the left side of the web page. Section 18 and 24-C's are under the special labels tab.

Meetings

Winter Flower Growers' Program

January 22, 2002 at J.P. Bartlett Greenhouses, Sudbury, MA. J.P. Bartlett's includes 7 acres of wholesale greenhouse production, with new greenhouse construction. Crops include geraniums (cuttings and plants), hangers and annuals.

Co-sponsored by University of Massachusetts Extension and the Massachusetts Flower Growers Association. All commercial flower growers are welcome to join us at this annual event. There will be open houses at area greenhouses from 8:00 to 10:00, with an educational program following from 9:45 AM - 3:30 PM. A catered lunch will be available. Topics at the Winter Program will include, "Planning the Future of a Family Business", Growers' Panel on Perennial Production, "Using Predatory Mites to Control Thrips on Spring Crops", "How to Use Aerosol Pesticides", "Reviewing the 2001 Spring Growing Season" and "Geothermal Heating a Greenhouse". For a program flier and preregistration form, contact Tina Smith, 413-545-5306, or Paul Lopes 508-295-2212 ext. 24, UMass Extension, or Bob Luczai 978-952-0116, Massachusetts Flower Growers Association.

Plant Nutrition Program

Tuesday, February 5, 2002

9:00 AM - 12:30 PM

Mullins Center

University of Massachusetts, Amherst

Tuesday, February 26, 2002

12:30 PM - 4:00 PM

UMass Waltham Center

240 Beaver St., Waltham

Confused about plant nutrition or... need a refresher course? Perhaps you had problems last spring, or you are a new grower or employee. Join us for a morning or an afternoon where we will discuss:

- How to choose growing media for a specific purpose.
- Water testing - What do the test results mean.
- Nutrient requirements for specific spring crops.
- How to use soluble salt and pH meters - demonstration and discussion.

Speakers to include:

Doug Cox, University of Massachusetts Extension Floriculture Program

Dan Jacques, Sun Gro Horticulture, Inc.

Roy Judd, Conrad Fafard, Inc.

Steve Bodine, University of Massachusetts Extension Soil Test Lab.

Bring your meters to be calibrated if you have them.

This program is sponsored by the University of Massachusetts Extension Floriculture Program. Cost: \$15. Make check payable to University of Massachusetts. Send your name and address and check to: Plant Nutrition Program, Extension Floriculture Program, Rm. 203 French Hall, University of Massachusetts, Amherst, MA 01003.

Call with any questions: Paul Lopes 508-295-2212 ext. 24 or Tina Smith 413-545-5306

NOFA-Vermont 20th Annual Winter Meeting

Saturday, February 16, 2002 in Randolph, Vermont at the Vermont Technical College. For more information, please call NOFA-VT at 802-434-4122 or email us at info@nofavt.org or write NOFA-VT Winter Conference, PO Box 697, Richmond, VT 05477.

FYI*

Schizandra Berries from China

The colorful berries of the Schizandra plant (*Schizandra chinensis*) have been a staple of Chinese herbalists for centuries and are known throughout Asia for their positive affect on the body. The Schizandra plant has become extremely popular outside of its Asian origin because of its culinary and nutritional value. It is known as the many-flavored berry. It's considered a great source for 'adaptogens', a substance that helps the body adjust to environmental conditions, and it also contains antioxidant properties. Used in Chinese medicine as an immune-enhancing herb. In Russia, Schizandra is used to treat eye fatigue and increase acuity. It is increasingly found in health related products for treatment of asthma, dry cough, hepatitis, stomach ailments or chronic fatigue. (*Of course, consult with a health professional before using this or any other herbal health product.*)

This perennial woody vine is native to Manchuria, northeastern China, Japan and eastern North America. The aromatic pink or white flowers give way to bright red fruit, which droops down in clusters from the vine. This is a good candidate for the cold winter or high elevation areas, a plant which likes to grow in a cool and moist situation. This plant requires rich, well-drained soil and thrives in sun or partial shade. Schizandra vines require a trellis. The best propagation method is by seed sown in autumn or spring. The berries may be collected after the first frost. Several vines are required to give good pollination, in order to produce the berries. The fresh fruit is sour and 'stimulating'. One Massachusetts farm grows fruit for juice that is sold at a local Chinese restaurant.

**Periodically Berry Notes will include a small section called FYI that contains information from "off the beaten track" that may be of interest to our readers. It is simply meant as food for thought and not necessarily an endorsement of any kind.*

Massachusetts Berry Notes is a publication of the University of Massachusetts Extension Fruit Program which provides research based information on integrated management of soils, crops, pests and marketing on Massachusetts Farms. No product endorsements over like products are intended or implied.