

# Strawberry, Raspberry, and Blueberry Cultivar Review 2003

Courtney Weber  
caw34@cornell.edu  
Dept. of Horticultural Science  
Cornell University  
Geneva, NY

The winter months are a good time to review your current small fruit cultivars and to make plans for new plantings. New cultivars are released all the time, and the vast majority of them fail to catch on for various reasons including poor adaptability to diverse growing regions, unforeseen disease or insect susceptibility, or fruit characteristics that are unacceptable to the buying public. The following sections are meant as a guideline for New York and the northeastern U.S. No cultivar will work well in all locations, soil types, and production systems, but many have proven to be useful in many different situations. In addition, many new cultivars show promise and may be suitable for your operation. However, as always, try new cultivars on a limited basis before abandoning cultivars that have proven reliable in your production scheme. This list is by no means complete but should address most situations. For convenience, an asterisk follows the standard cultivars (\*). The author can be contacted with questions or to discuss other possibilities at caw34@cornell.edu.

## **Strawberry Cultivars**

Strawberries are probably the most variable and temperamental of the small fruits and also probably have the most cultivars to choose from because they are often adapted to a relatively small growing region. June-bearing types are most commonly grown in NY and the NE U.S., but interest is growing in day-neutral types grown on plastic

### **Early Season**

**Sable** (Nova Scotia, Patent Pending) is slightly earlier than Earliglow and is equal or better in flavor. Unfortunately it lacks size and firmness. This cultivar is only suitable for direct retail and u-pick operations. Frost damage can be a problem because the flowers open very early.

**Earliglow\*** (USDA) is still considered the best tasting berry around. Primary berries are large and attractive and are suitable for retail or wholesale. Berry size drops off quickly after the primary berries and yields are relatively low.

**Northeaster** (USDA) was billed as a replacement for Earliglow and outperforms it in all ways except flavor. Yield is higher and fruit size and attractiveness are equal to Earliglow but the flavor is unusual. The grape Kool-Aid like aftertaste can be a turn off to many customers.

**Honeoye\*** (Cornell University-NYSAES) has reigned as the yield king for many years and produces an abundance of large, attractive, firm, berries that are suitable for all markets. Closer to an early mid season, the look of this berry sells it, but taste is the major drawback as it can be tart and can develop disagreeable aftertastes when over ripe or in heavy soils. It is susceptible to red stele disease but is manageable.

### **Mid Season**

**Brunswick** (Nova Scotia, Patent Pending) has fruit size and yield similar to Honeoye. However, it has a squat, round shape and tend to be dark and bruise easily. The flavor is good but can be tart when under ripe.

**Cavendish** (Nova Scotia, Plant Patent #11,110) is a high yielding, high quality berry in a good year. However, high temperatures during ripening can cause uneven ripening that can be a real problem.

**Darselect** (France, Plant Patent #10,402) is a large fruited, high yielding cultivar. The berries are an attractive bright red with a long conical shape. The flavor is very good. However, it tends to be soft. It is worth a look.

**Kent\*** (Nova Scotia) produces medium sized berries with very good yield, especially in new plantings. Hot weather can cause skin toughness to deteriorate. It is very susceptible to leaf spot and scorch and to angular leaf spot. It is very sensitive to Sinbar herbicide. It does not do well in hot weather.

**L'Amour** (NY1829, Patent Pending) is a new cultivar from Cornell for 2004. It is an early mid-season type with excellent fruit quality. Berries are bright red and firm but not hard, with excellent eating quality and flavor. Fruit is long round-conical with a fancy calyx, which makes them very attractive. Disease and insect resistance is unknown at this stage but no significant problems have been noted to date. I like this one a lot.

**Mesabi\*** (University of Minnesota, Plant Patent #11,116) is a very high yielding berry with large berries and good flavor, but does not store well. It is resistant to red stele and tolerant to leaf diseases and powdery mildew.

### **Late Season**

**Allstar\*** (USDA) is good yielding, high quality cultivar with good flavor. Unfortunately, the color is pale red to orange and is unacceptable to an uninformed consumer.

**Cabot** (Nova Scotia, Patent Pending) produces impressive berries. Average fruit size is far larger than any cultivar currently available. Primary berries often weigh 40-50 g. The color can be pale and primary berries are often irregular in shape. Secondary berries do not have this problem. Yields are very good. It is resistant to red stele. It is susceptible to virus infection.

**Clancy** (NYUS304B, Patent Pending) is a new release from Cornell that was developed through a joint venture with the USDA breeding program in Beltsville, MD. It has parents that are resistant to red stele root rot. The fruit is a round conical shaped with darker red color and good flavor. The flesh is firm with good texture and eating quality. Insect and other disease resistance is unknown at this time but no significant problems have been noted to date. Growers looking for a firm late season berry may want to try this one.

**Jewel\*** (Cornell University-NYSAES, Plant Patent # 5897) continues to be the favorite in this season. The high quality berries are large and attractive with good flavor. Yields are moderate. On a good site, it's hard to beat. It is susceptible to red stele and can have vigor problems in poor sites.

**Ovation** (USDA) is extremely late. It doesn't flower after most others are past their peak. Fruit quality is average but there is little to compare it to in its season. Yields are moderate

**Seneca** (Cornell University-NYSAES, Plant Patent #8991) is probably the firmest cultivar available for the northeast. The fruit is large, bright red and attractive but the flavor is only acceptable. It does not runner heavily and can be adapted to plasticulture.

**Winona** (University of Minnesota, Plant Patent #10,191) has very large berries and average yields but can not compete with Jewel for fruit appearance. It has good vigor though and might be useful where Jewel does poorly.

### **Day Neutral**

**Everest** is a fairly new cultivar out of the U.K. It has large, firm, bright red berries. It does not runner well and is only suited for plasticulture. Over wintering can be a problem with this one.

**Seascape** (UC-Davis, Plant Patent #7614) is a day neutral out of California that is seeing some success in the east. The fruit is large and very attractive. It is firm and good quality. It does not runner and is only suited for plasticulture. Over wintering can be a problem with this one.

**Tribute** and **Tristar** (USDA) have been the standard day neutral cultivars for the northeast for the last 20 years. They are disease resistant, vigorous, and runner enough for matted row production. Both are relatively small fruited and low yielding but off-season fruit may pay off. Of the two, Tribute has better size and Tristar has better flavor.

**New Cultivars**-these have not been tested in Geneva but may be of interest.

**Evangeline** (Patent Pending) this new cultivar from Nova Scotia ripens in the early season. The fruit is long conical in shape with a pronounced neck. The interior is white

and it is susceptible to red stele. The fruiting laterals are stiff and upright which keeps the fruit off the ground and clean.

**Sapphire** is a late mid season cultivar from the U. of Guelph in Ontario. The fruit are bright red and large. It is reported to be tolerant of the herbicide Sinbar (terbacil).

**Serenity** is a late season cultivar that is also from the U. of Guelph in Ontario. It is tolerant to Sinbar (terbacil). The fruit is large and bright red. The skin tends to be soft. It reported to be moderately resistant to scorch and mildew.

**Saint Pierre** is a new cultivar out of Quebec. It has large conic shaped fruit that are pale red to orange, much like Allstar. Fruit firmness and flavor are reported to be very good.

**Elsanta** (Netherlands) is one of the most widely planted cultivars in Europe. It is June-bearing with high yield potential. Fruit is firm and aromatic. It is susceptible to red stele, anthracnose, and verticillium wilt.

**Bish** (Patent Pending) is a new cultivar out of North Carolina State University. This cultivar is large and firm. It is resistant to anthracnose. It is a June-bearing cultivar developed for use in plasticulture systems.

**Avalon** (Rutgers University, Plant Patent #11,372) is an early season berry with large fruit size. The fruit is rounder than Earliglow and somewhat dark. Flavor and firmness are very good. Plants are large and vigorous.

## **Raspberry Cultivars**

There are a lot of raspberry cultivars out there dating from the 1940's to 2003. They come in summer bearing floricanes types and fall bearing primocane types. By planting a series of cultivars, it is now possible to have fruit from mid to late June until frost in much of NY and the northeastern U.S. with only a short late summer lag in production. Here are some thoughts on some of the cultivars available.

### ***Early Season***

**Boyne** (Manitoba, sibling to Killarney) plants are spiny and produce many suckers. The fruit ripens early and is small to medium in size and somewhat dark and soft, but it has fair flavor and good freezing quality. It has excellent winter hardiness but is susceptible to anthracnose. It is moderately resistant to late yellow rust and tolerant to Phytophthora root rot and crown gall, but is susceptible to raspberry fireblight. Boyne yields very well and is recommended for colder climates.

**Killarney\*** (Manitoba, sibling of Boyne) has short to medium canes, is spiny, and produces many suckers. It is moderately resistant to Phytophthora root rot. It is susceptible to mildew and anthracnose. The fruit ripens early, but after Prelude and

Boyne. The fruit is medium-sized but very bright red and may crumble. Flavor and freezing quality are good, but berries may soften in warm weather. This cultivar is very hardy and is recommended for colder climates.

**Prelude\*** (Cornell University-NYSAES, Plant Patent #11,747) is the earliest summer fruiting cultivar available. The fruit is medium sized, round, and firm with good flavor. It is very resistant to Phytophthora root rot and has good cold hardiness. A moderate fall crop is large enough to warrant double cropping. It is probably the best early season cultivar available for the northeast.

### ***Mid Season***

**Canby\*** (Oregon) canes are tall, nearly spineless, and moderately productive. The fruit ripens mid season, is medium to large in size, firm, and bright red with excellent flavor. It has moderate to poor hardiness, and buds may winter kill in cold climates. It is susceptible to Phytophthora root rot.

**Claudia** (KCE-1, University of Maryland, Patent pending) produces stout, upright canes. The fruit is large and conical with good flavor and ripens mid to late season. A late fall crop is common. It has acceptable cold hardiness for most areas. This is a new release that is relatively untried, but has performed well in Geneva.

**Emily** (JAM-1, University of Maryland, Plant Patent #12,350) produces large midseason fruit with good yield potential. It is susceptible to Phytophthora root rot and has suspect cold hardiness. This is a new release that is relatively untried and has performed poorly at Geneva.

**Esta** (GEL-114, University of Maryland, Patent pending) produces fruit mid to late season that are large and conical with a mild, bland flavor. It is susceptible to Phytophthora root rot and lacks cold hardiness. It is resistant to leaf hoppers. It needs trellising for ease of picking. This is a new release that is relatively untried.

**Nova** (Nova Scotia) is vigorous and upright with long, fruiting laterals. The canes have very few spines. The fruit ripens in mid-season and is medium sized, bright red, firm, and somewhat acidic in taste. It is considered to have better than average shelf life. The plants are very hardy and appear to resist most common cane diseases, including rust. It will set a late fall crop.

**Titan\*** (Cornell University-NYSAES, Plant patent # 5404) produces large canes with very few spines with suckers that emerge mostly from the crown, so it is slow to spread. It is susceptible to crown gall and Phytophthora root rot but is extremely productive. Fruits ripen mid to late season and are extremely large and dull red, with mild flavor. Berries are difficult to pick unless fully ripe. With only fair hardiness, Titan is for moderate climates. It is resistant to the raspberry aphid vector of mosaic virus complex.

### ***Late Season***

**Encore\*** (Cornell University-NYSAES, Plant patent # 11,746) is one of the latest summer fruiting raspberry available. It produces large, firm, slightly conical berries with very good, sweet flavor. The fruit quality is considered very good. It is moderately susceptible to Phytophthora root rot and has good cold hardiness.

**K81-6** (Nova Scotia) produces canes that are medium tall with spines only at the base. The fruit is very large with good flavor that ripens very late summer with average firmness. It is resistant to late yellow rust but is susceptible to leaf curl virus and raspberry fire blight. Hardiness is judged adequate for most areas.

### ***Black Raspberries***

**Bristol** (Cornell University-NYSAES) is vigorous and high yielding for a black raspberry especially in a newly established planting. The fruit ripens early and is medium to large and firm, with excellent flavor. Bristol is hardy for a black raspberry but should be tested to ensure adequate hardiness. It is susceptible to anthracnose and raspberry mosaic complex but is tolerant to powdery mildew.

**Jewel\*** (Cornell University-NYSAES) is vigorous, erect, and productive for a black raspberry. This cultivar appears to be more disease resistant than others and includes resistance to anthracnose. The fruit is firm, glossy, and flavorful and ripens in mid-season. This is a hardy black raspberry cultivar.

**Mac Black** is new to the scene and has not been tested much. It is a late season black raspberry with medium large berries. It is reported to have good cold hardiness for a black raspberry. Definitely worth a look to extend your black raspberry harvest by 7-10 days.

### ***Purple Raspberries***

**Brandywine** (Cornell University-NYSAES) produces canes that are very tall with prominent thorns, and suckers grow only from the crown so the plant will not spread. It is susceptible to crown gall but partially resistant to many other diseases. Fruits ripen later than most red cultivars and are large, dull reddish-purple, and can be quite tart. Berries are best used for processing. This is a high yielding cultivar.

**Royalty\*** (Cornell University-NYSAES, Plant patent # 5405) is considered the best purple raspberry available. The canes are tall and vigorous, with thorns, and are extremely productive. Royalty is immune to the large raspberry aphid, which decreases the probability of mosaic virus infection, but is susceptible to crown gall. Fruits ripen late and are large and reddish-purple to dull purple when fully ripe. Berries tend to be soft but sweet and flavorful when eaten fresh. Excellent for processing. Hardiness is acceptable for northern growing areas.

### ***Fall Bearing***

**Anne** (University of Maryland, Plant patent # 10,411) produces large, conic, pale yellow fruit with very good flavor and texture in mid to late season. It produces tall upright

canes but does not sucker adequately for good stands. It is resistant to Phytophthora root rot.

**Autumn Bliss** (Great Britain, Plant Patent #6597) is an early ripening raspberry with large, highly flavored fruit. It ripens 10 to 14 days before Heritage. Much of the crop is produced within the first two weeks of harvest, which is an advantage in northern climates. It produces short canes with few spines. The fruit is somewhat dark fruit. It is susceptible to raspberry bushy dwarf virus.

**Autumn Britten\*** (Great Britain) is early ripening with large, firm, good flavored fruit. It is taller than Autumn Bliss with better fruit quality but slightly lower yields. It is a day or two later than Autumn Bliss.

**Caroline\*** (University of Maryland, Plant patent # 10,412) is a large, good flavored, conical fruit. It produces tall upright canes. The short fruiting laterals can be challenging to pick, but yields are very good for the fall. It has moderate to good resistance to Phytophthora root rot.

**Goldie** ('Graton Gold', California Plant Patent #7625) and **Kiwigold** (New Zealand, Plant patent # 11,313) are nearly identical cultivars. They are amber sports of Heritage, similar in all characteristics except fruit color. Fruit blushes pink when fully ripe. Goldie blushes slightly more than Kiwigold.

**Heritage\*** (Cornell University-NYSAES) is considered the standard for fall bearing cultivars. These tall, rugged canes have prominent thorns and are very high yielding. The primocane crop ripens relatively late. Fruit is medium-sized and has good color and flavor, firmness, and good freezing quality. It is resistant to most diseases. Due to its late ripening, this cultivar is not recommended for regions with cool summers or a short growing season with frost before September 30.

**Josephine** (JEF-f1, University of Maryland, Plant Patent #12,173) plants are upright and vigorous. Fruit is large with average flavor that ripens mid season. It is resistant to Phytophthora root rot and leafhopper. This is a new release that is relatively untried.

**Polana** (Poland) is a very early season cultivar that ripens 2 weeks before Heritage. It produces short productive canes with multiple laterals per node. The fruit is medium sized fruit with good flavor. Susceptible to verticillium wilt and Phytophthora root rot. It needs extra nitrogen to perform well.

**Ruby** (Cornell University-NYSAES, Plant patent # 7067) is moderately vigorous with good productivity. The primocane crop ripens slightly ahead of Heritage. The fruit is large with a mild flavor. Ruby is moderately susceptible to Phytophthora root rot. The cultivar is suggested for fresh market or shipping in areas with longer growing seasons. It is susceptible to mosaic virus complex and resistant to late yellow rust and powdery mildew.

### ***Greenhouse Production***

**Tulameen\*** (British Columbia) has been shown to be superior for greenhouse production. It produces very large fruit, and high yields. The fruit is glossy and firm. It is resistant to aphid vector of mosaic virus complex. Plants are not adequately hardy for field production in the Northeast.

### ***Blueberry Cultivars***

While blueberries are not widely grown in NY there are regions with suitable soil and they are more widely grown in other regions in the northeast. They exhibit a wide range of hardiness that must be taken into account when selecting cultivars.

### ***Early Season***

**Bluetta\*** is very hardy but has small dark berries that are difficult to machine harvest. The large scar on the berry is also a problem. Suitable for Zones 3-4.

**Duke\*** is considered the best early season cultivar available. The fruit size and quality is very good but the flavor can be bland if picked late. It can be machine harvested. Frost tolerance and winter hardiness is good. Suitable for Zones 5-6.

### ***Early Mid Season***

**Bluejay** has high quality fruit that can be machine harvested but may be less productive than other cultivars. Suitable for Zones 5-6.

**Northland\***, as the name suggests, is very winter hardy. It is a half-high bush with small, dark, soft fruit. It is productive but requires heavy pruning. Suitable for Zones 3-4.

**Patriot** is winter hardy but frost sensitive. It is a smaller bush but still productive but must be pruned hard for large fruit. It must be fully ripe for best flavor. A recent disease problem resembling virus infection has taken it off the recommend list.

**Spartan** produces large, good quality fruit with good flavor. It can be machine harvested, but it needs cross pollination for good yields and can be difficult to grow in some sites. Suitable for Zones 5-6.

### ***Mid Season***

**Bluecrop\*** is a commonly planted cultivar in New York. It has good flavor and fruit size and firmness. It has high yield potential. It is hardy in most of NY and can be machine harvested. The canes tend to be weepy. Suitable for Zones 5-6.

**Blueray\*** is also one of the more widely planted cultivars in New York. Fruit size is very good with good flavor and high yield potential. Extra pruning is needed with this spreading bush. Suitable for Zones 5-6.

**Chippewa\*** is a very winter hardy cultivar that is productive with large firm fruit. This half-high bush is relatively new and has not been widely tested. Suitable for Zones 3-4.

**Sierra** is productive and has large firm berries that can be machine harvested. It is less hardy than other cultivars. Suitable for Zones 5-6.

**Toro** is a productive cultivar with large fruit that ripen uniformly. The clusters tend to be tight which makes picking harder. The canes tend to be too upright and thick. Competes with Bluecrop, which is probably better. Suitable for Zones 5-6.

### ***Late Season***

**Brigitta** is a large flavorful fruit that stores well. It is vigorous but can be less hardy because it grows late into the fall. Excess nitrogen will make this worse. It is susceptible to phomopsis. Suitable for Zones 5-6.

**Elliott\*** is a very late season berry with very good shelf life, 30-45 days in a Modified atmosphere. The fruit is large and firm but can be tart. It is a good producer. Suitable for Zones 5-6.

**Jersey** is an old (1928) cultivar that is adapted to a wide soil range. It has high yields of machine harvested fruit but the berries are small and soft. Suitable for Zones 3-6.

**Nelson\*** is productive with firm, attractive, good flavored that can be machine harvested. The fruit can hang on the bush for extended periods. It is a vigorous, hardy bush with wide soil adaptation. Suitable for Zones 5-6.

### ***New Cultivars***

**Aurora** is a late season cultivar out of the Michigan State University program. The plants are vigorous and upright with numerous, moderately branched canes. The fruit is moderately large with excellent quality.

**Draper** is an early mid-season cultivar out of the Michigan State University program. It has high fresh market quality and prolonged storage life. The plants are vigorous and upright. Fruit quality is very good with moderate size.

**Liberty** is a very late season cultivar out of the Michigan State University program. The plants are vigorous and upright with numerous, moderately branched canes. The fruit is very firm with good flavor. Storage life is very good.