Evaluation of New Apple Varieties, 1998 Observations: A Report to the New England Tree Fruit Growers Research Committee

Duane W. Greene

Department of Plant and Soil Sciences, University of Massachusetts

During the growing season I evaluated about 125 named varieties and numbered selections. Below are my observations on the performance of many of these in 1998.

Arlet

I continue to be on the fence with this apple. It has good, but not outstanding flavor. It does not suffer from biennial bearing, and fruit size is good. It russets here, up to 25% of the surface, it drops and it does become greasy. A drop control compound is appropriate with Arlet. I am cooperating with Sarah Weis on storage of Arlet this year to get a better assessment of its postharvest life.

Autumn Gold

This is my first year with this cultivar and I had just a couple of fruit. I believe that I harvested it too late, October 19. It is a medium to large apple with some russet and is not too attractive. The ones I tasted were neither crisp nor juicy but I believe that they were overmature. There were longitudinal cracks in the pedicel end, throwing up a red flag. Flavor was of bananas, fruity and very pleasant. It had a good sugar to acid ratio. I rated the flavor very high, even with the faults.

AA 62 (Stellar)

I continue to favor this attractive lemon yellow apple. It is extremely attractive and has a large L/D ratio (over 1.05) even here. It has no russet but it is

extremely susceptible to apple scab. Flesh is crisp, juicy, fruity, and very good. One thing that I did note this year is that at harvest it had an ethanol (aldehyde) taste that detracted from the flavor. It did have some moldy core this year. I have noted this in other apples in the past including HoneyCrisp. I will continue to look at this one.

AA 122

This is the first year of evaluation of this oblate deep yellow apple. It has white inconspicuous lenticels and yellow flesh. The flavor was OK, being slightly sweet with a bitter after taste. It was rated in the middle of the pack. If it does not have outstanding flavor or crispness, the evaluation time of this apple will be short.

Braeburn

It is a somewhat unlikely candidate to be grown in New England because of late maturity. It blooms profusely and set can be excessive if not thinned very well. I have used three applications of 6 ppm NAA with or without carbaryl on Braeburn with success. Fruit size is good and color is acceptable. It is not very good at harvest but after a period of cold storage it does taste very good. It has good postharvest life. I do recommend planting this apple in New England.

Cameo***

I consider this to be one of the best new cultivars. It ripens in mid-October here. It has good L/D ratio

and quite good if not quite different color. It is a highly striped apple with about 80% of the surface a dark reddish brown color. It is a very grower-friendly tree. This tastes like a very good Delicious but the taste is very mild. While I never hope that is will be sold as Delicious, I think that it will appeal to people who actually do have taste for it but are attached to the unfortunate versions of Delicious available today. I am high on this apple and think that it will sell here in the East. It does have biennial bearing tendencies.

COOP 25 (Scarlet O'Hara)

This is a medium sized brownish red apple that I have liked for two years. It can be picked, and actually tastes very similar when harvested over a 4-week period from late September to late October. It is one of the crispest and best storing apples I evaluate. It stores better than Fuji or Braeburn but not quite as well as HoneyCrisp. It has a mild, fruity, vanilla flavor with a good sugar to acid ratio. I would plant this even if it were not a scab resistant apple. Anyone who is looking for a versatile scab resistant apple should be looking at this. It is very susceptible to fire blight so areas where this is a problem should proceed very carefully.

COOP 37

I have looked at this cultivar for three years now. It is very similar to GoldRush in appearance and time of ripening. It is somewhat attractive with a 20 to 30% orange cheek. It has a strong vanilla taste, very juicy, and medium in size. I rate it good but not exceptional, although my tasting notes include the comment 'look at again'.

Creston

This was a difficult year for apples that are not highly colored because of the heat. Creston suffered, and consequently it was not very attractive. However, compared with other apples evaluated it was one of the crispest and juiciest. It was also rated very high in flavor, and overall as being very desirable. It was also large. We should continue to evaluate this apple.

Dalrouval

This is one of the several selections of apples that

were sent to me by Stark from the Delbard Nursery in France that fruited for the first time this year. It has an 80% dark maroon surface and looks like a Delicious. Harvest date was on August 24, just about with Ginger Gold. It has a distinctive sweet perfumy flavor. It is quite crisp and very juicy but the skin in tough. I rated it quite high and noted that it was a very good apple.

Delgorov

This is an extremely attractive bright orange-red apple that is about 80% red striped. It is medium small, fairly crisp, juicy, but the flesh seems somewhat dry. I noted that it was a fairly good apple with a good sugar to acid ratio. Harvest is 2 weeks before Gala.

Deljoron

The color of this apple is almost 100% dark burgundy red. It in many ways reminds me of an Empire in appearance and taste. The flesh is white with a tinge of green. The skin is smooth somewhat tough, with many tan lenticels. It ripens about with Delicious. I was favorably enough impressed with it at harvest to note that I should continue to look at it.

Delorina

A small dark cherry red apple ripening with and looking somewhat like Delicious. It has yellow flesh with yellow flecks, slightly sweet, moderate acidity, and is somewhat crisp and juicy. Flavor is tangy and slightly fruity. I rated it fairly high.

Delshel

This is a an extremely dark red, medium to small apple that is

Gala-like in appearance. It has scarf skin and reminds me to a very large extent of Buckeye Gala. It has prominent tan lenticels and a pleasant fruity taste. It ripens about two weeks before Gala. I rated this quite high.

Enterprise

The quality of this apple improved immensely this year. It was near the bottom of the list last year. While not on the top, it did move up quite a bit. What is the

difference? We had a very hot summer and I believe that was the difference. It was extremely attractive, medium size, sweet, crisp, juicy, and slightly fruity. Last year I described its flesh as tough, dry, and sawdust-like. The bottom line here is that it is meant to be grown in warmer climates. In warm years it will be very good.

Florina

I hear very little about this apple, but it is very good, especially for a disease resistant apple. It is very attractive and its skin is glossy like a HoneyCrisp. It is somewhat crisp, very juicy, with a good mild buttery flavor. Fruit size is medium. I rated it very high.

Fortune

Although red color development was delayed, it did come along. It was not very firm or crisp this year and acidity was rather high. Although it was not at the top of the list flavor, overall I rate it as an above average apple. The irregular shape is a problem as is its mammoth size. I have serious reservations about whether this will make it with all of the good competition.

Fuknishiki

This is the first year I evaluated this apple and it may be my last. It is not attractive with 70% pinkish red color. It has scarf skin and the flesh is greenish yellow. The skin is extremely tough, and the flesh is a nondescript, chalky and astringent flavor. It is not very good.

Fukutami

A small bright cherry red apple. While the cosmetics are good, the taste is not. Although it is somewhat sweet, the flavor is masked by extremely high acidity even when it has watercore. It is not good enough.

Gala Supreme

A year ago I was quite impressed with Gala Supreme. I am out of favor with this apple now for several reasons. It has no better than "good"

appearance. It can be quite tart at harvest even though sugars are quite high. The flesh is grainy and the taste is nothing spectacular. It has a chalky aftertaste that I attribute to high tannins. It has problems in storage in that it loses firmness rapidly.

Ginger Gold

The luster of this apple was not tarnished this year. It remains a very crisp, juicy, mild tasting apple that has a great deal of customer appeal. It is often harvested too early, when it is still too green. Even at this stage it is good, certainly better than most. It does not hold up well in storage so only those that can be sold at harvest should be planted. It holds up well on the tree. If one follows starch ratings, it loses starch very slowly. It may go from 2 to 5 (on a scale of 8) over a 2.5 week period, whereas others lose starch much faster. This is definitely a winner in New England.

Golden Supreme

This is a very high quality apple, both in looks and in quality, but its faults may kill it. It is not precocious, and it is quite biennial. It ripens irregularly and extensive preharvest drop is possible. Under ideal conditions it is an absolutely beautiful apple. I still like this one a lot and I am not willing to give up on it. It does store quite well.

GoldRush

We had a hot summer and consequently this did much better than it has in the past. Normally it is small, russeted, with high acidity. Acidity does mellow in storage, but not enough. This year it did do better, but it will never be a good apple for us unless global warming pushes the mid-Atlantic region weather up to New England. I do not recommend it for this area.

Hampshire

For New England or for cooler areas, I believe that Hampshire has a place. It is medium size plus, quite uniform in size, and attractive. It has a very mild taste at harvest. The apple mellows after 4 to 6 weeks in storage giving it a very tender yet pleasing taste and texture. It holds up well in CA storage. I recommend

planting Hampshire, at least on a limited basis until we get more out there to evaluate.

Hardy Cumberland

This is a very attractive nearly 100% blush dark red apple. It has somewhat of an irregular shape. Flavor is good but mild, not sweet, crisp, or juicy. I evaluated it over a 3-week period from the end of September to October 19, with similar results. I will continue to look at this, since I have not formed an opinion yet, other than it is good.

HoneyCrisp

The popularity of this apple is amazing but it has so many things going for it that it deserves it. It is the crispest and best storing apple that I have ever worked with. Fuji is not even in the same category, but neither are any other apples currently under test. Its faults or problem are surfacing including leaf hopper susceptibility???, poor growth, lack of color, off tastes to mention a few. However, this apple has staying power and it will be a dominant player at least in the East for many years to come. We must work through the apparent problems. I could mention many things here but I believe that this apple has so much potential that a whole article should be devoted to it. I am on my third planting of HoneyCrisp, with no intention of slowing down.

Huanguan

This is not an attractive or visually appealing apple. It has 70% brownish red color that is somewhat striped and mottled. It is quite crisp and very juicy. The juice is extremely thick, unlike most other apples. It has an extremely strong vanilla taste, to the point of being objectionable. It is no better than medium size. The poor appearance, the size problem and the very strong flavor lead me to conclude that this is an apple that will not make it.

Huashuai

Huashuai is in the middle of the pack on too many characteristics. It lacks too many distinguishing features to have a bright future. It is very Deliciouslike in appearance and taste. It lacks character/flavor. It is not crisp enough or juicy enough to overcome other deficiencies. It is similar to Cameo in some respects, but Cameo will win because it is larger, has better color, is more attractive, and I believe it tastes better.

Hudson's Golden Gem

I have fruited this wonderful apple for several years but have not reported on it because it is different, a fringe apple. It is a completely russeted apple that ripens in Golden Delicious time. The size is medium to large, and the shape somewhat oblate to conic. The taste is pear-like, but lacking the grit. Everyone that tastes this apple just loves it. It is somewhat sweet but with enough acid and tannins to give it character. The appearance is so different that it attracts attention. We are planting two apple varieties in quantity this year, Honeycrisp is one and Hudson's Golden Gem is the other one.

Kinsei

This is quite an unattractive apple that has very good flavor. Where does it fit in? I do not know. I still favor it and feel that it can develop a following if properly promoted. It is not large enough or attractive enough to be a dominant apple, but it may have a place. It stores very well. I found out this year that it is very susceptible to apple scab, in the McIntosh category.

Kitanosachi

This is another one of the Japanese apples that makes me ask why? It is small with dirty red striping. Flesh is green with a whitish tinge and the flesh feels soft even though it is not. Even in the third week in August there are better apples.

Monidel

This is the first year of evaluation of this apple. Shape is oblate to truncate, size medium to large, with a light striped cherry red color, but only moderately attractive. It is crisp, juicy, spicy, with a good sugar to acid ratio. Vanilla and licorice are quite prominent. It ripens at the end of August when the only real

competition is Paulared, Ginger Gold, and Sansa. My notes indicate that this is a good apple that should be evaluated more, and I underlined it.

Murasaki

Quite irregular in shape and 100% muddy red color characterize the appearance of this apple. It had watercore in the second week of October but it was still not sweet. Even though this was the first year of evaluation, I believe that I will pull it out.

NJ 55 (Suncrisp)

I put Suncrisp in the same category as some of the other apples that originated from the mid-Atlantic region. We had a hot year last year and it did much better than it has in the past. It develops a very attractive orange red color in mid-October. Acidity was down, sugars were up and flavor was very good. It was a very good apple. It also stores well. In warm years we can look forward to a very good tasting apple in Suncrisp.

NJ 90

There are few apples evaluated this year that are as attractive as NJ 90. It is a flat McIntosh type that has a deep dark red color. It has excellent flavor that I characterize as perfumy vanilla. It is extremely crisp, slightly sweet, with a generous dose of acid and tannins. The major drawback to this apple is that the skin is extremely tough, so much so that it may be fatally flawed.

NJ 100

This is a fairly attractive yellow apple that has no russet. I rated it quite high in appearance, flavor, and overall, with good sugars and acid. It is somewhat crisp and very juicy. It has a very distinctive flavor. It ripens at the end of September. Last year I did not rate it too high so further testing is necessary to see how this one sorts out.

NJ 107

This is an extremely attractive white-yellow apple.

It is medium in size and bruises easily. Flesh is somewhat soft. It has an anise flavor that is almost completely masked by very high acidity. It ripens about with Pristine, and if given a choice, I would select Pristine.

NJ 109

An extremely attractive glossy yellow color characterizes this apple. It is crisp, juicy with a very mild flavor, so mild that I hardly taste anything. It ripens just after Ginger Gold so the competition may be too great for this apple. Although it is more attractive than Ginger Gold, it is not better in any other attribute.

NJ 112

I rated NJ 112 in the middle of the pack in a number of areas. It has a fairly attractive red color covering 80 to 90 % of the surface. The flavor is OK but not outstanding and the skin is a little chewy. Fruit have moldy core. It ripens in the first week in October when there are many good fruit available. Just because there are many better ones, this will not make it.

N.J 116

I evaluated this apple four times over a three week period starting on August 3. It acts like a summer apple in that ripening is uneven, and there can be mealy apples on the tree while others are not ripe yet. It is an extremely attractive yellow apple, that for the most part I rated very high. It is crisp and juicy, and perhaps its best trait is its earliness. It is similar to other NJ yellow apples in that it is tart, has very weak flavor, and is very attractive in that it is russet free. It is a viable option for an early apple.

NY 460

I suspect that no one will comment on this apple. However, I think that it is an excellent one. It has the same parents as Fortune, Schoharie Spy X Empire. It is very attractive, somewhat ribbed with some fruit having an irregular shape. Size is large but not too large. It is crisp, firm, juicy and a very pleasant apple to eat. It is very susceptible to apple scab. It also

inherited the lack of precocity associated with Northern Spy. It is a great apple to eat, and I guess I will be one of the few who will have that opportunity. I understand that this was one of Roger Ways personal favorites.

NY73334-35

I evaluated a number of NY scab resistant apples this year and this is probably the best. It ripens in mid October. It is large, extremely crisp and juicy and quite attractive with 80 to 90% red color. The acidity is fairly high and this may mask some of the flavor. Essentially, it is a good apple.

Natco 3

This is a very distinctive apple and for that reason alone it deserves comment. It is a very typey yellow apple that has cosmetic/russet problems. It has prominent tan lenticels and an orange red cheek similar to Suncrisp. Other than the shape the distinctive feature of this apple is its very strong taste. It has a strong perfume-banana flavor with juice that is buttery and extremely thick. It is one that I think that you would either love or hate. The skin is chewy with elevated levels of tannins.

Pristine

I am not a big fan of Pristine but in the first week in August there are not too many choices of yellow apples. This year the Pristine in my NE-183 block was totally off. They can be very biennial. If it is harvested when not completely yellow the acids will be very high and it will have very little flavor. It does have licorice taste when it is ripe. I do believe that this is another one of those apples that will do better in a warmer climate.

Runkel

Runkel develops good red color before it is ready to harvest. It is large with 80 to 90% red color at harvest time in October. The flavor is good, fruity, tropical. When it is ripe the flesh may be somewhat soft and the skin appears to be tough. It is quite susceptible to apple scab. Overall it was a good apple.

Sansa

This is still one of the top apples that I recommend. It is very Gala-like, only ripening 2 weeks earlier. It is a lousy looking tree and it has the appearance of having apple mosaic virus, but this is genetic. I am totally convinced that an apple such as this has a place early in the season. Some people like it better than Gala. It is a weak tree and we must work to keep it growing well. In taste evaluation it comes out very high.

Shizuka

I continue to like this apple although I am seeing more of its faults. At harvest it was rated highest of all of the good apples in NE-183 for crispness, juiciness and flavor. The only apples that were rated higher, relative to being overall desirable, were Sansa and Golden Supreme. This is one of the apples in our storage test this year. It is softer than Mutsu at harvest and it does not hold up in storage as well as Mutsu. I have not tried it in CA storage yet, but in regular storage it is pretty well shot by the end of January or earlier.

Sunrise

Sunrise is an excellent apple if you harvest it on the right day. It acts like a summer apple in that it ripens variably, and when it develops good red color it has lost much shelf life. I agree with research in British Columbia that reports that it must be harvested much earlier, at starch level readings of 2 to 3 (on a scale of 8) to have good shelf life. If placed in cold storage it will deteriorate rapidly. I do not recommend this apple because of the multiple harvests and the problem with short shelf life.

Takane

It is very similar to Fuji. It is medium size, with a rather unattractive pinkish red color. The taste is similar to Fuji but perhaps better in that it may be sweeter and have more fruity aromatic flavor. It does not have the flesh firmness of Fuji. I will continue to look at this apple but I think that Fuji has the edge in appearance, and firmness.

Zestar (MN 1824)

This was another pleasant surprise from Minnesota. It is a large apple that has about 60% of the surface with a pinkish red color. It is not very attractive but it does have other attributes. It is my understanding that it is meant to compete with Paulared. It ripens about 5 days ahead of Paulared. It

is crisp and juicy but the flesh does not seem as dense as others, almost pithy but not necessarily objectionable. It is a very pleasant apple to taste. It is slightly perfumy, sprightly, and yes, zesty. It is an apple that grows on you, almost addictive. I believe that it will compete successfully with Paulared even though it is not as attractive.

