

THE ORTET

Volume Two

Midwest Apple Improvement Association
Autumn 2016 Newsletter



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To obtain the EverCrisp® licensing agreement and learn more about MAIA go to:

midwestapple.com

Midwest Apple Improvement Association P.O. Box 70 Newcomerston, OH 43832 (800) 446 - 5171

A Message from the Chairman

Thank you Mitch Lynd and Ed Fackler!



David Hull
White House Fruit Farm
MAIA Chairman of the Board

he pastor of a church we were visiting recently said that "the river of life often begins with a trickle". Not a boom, not a bang, nor with fireworks, but with a trickle. Think of the mighty Mississippi River beginning as a ten foot wide stream in upper Minnesota. Things that move mountains often begin small. One step in the right direction, made with confidence and belief... this is what happened with the beginning of the Midwest Apple Improvement Association. Our trickle began with Mitch Lynd of Ohio and Ed Fackler of Indiana having a conversation.

The conversation was about the only average quality of apples coming from Midwest orchards. Of course many of the apples were of varieties not particularly suited to Midwest conditons. Yes, there were times when excellent quality could be achieved but Mitch and Ed were convinced improvements could be made and the number one improvement began with better apple varieties. Other area growers thought the same, but Mitch and Ed were different because they thought a grower group could work toward the goal and they thought they could, and should, take the reins in forming that group. The group became the Midwest Apple Improvement Association.

I imagine the reaction of many growers was mixed when Mitch and Ed floated the idea of farmers banding together to pursue better apples. Most were polite and listened and some agreed to fund the effort by donating \$100 per year. But I suppose most growers thought success was a long shot (which it was) and felt the association would ultimately fail because of a lack of funding, energy, or a lack of progress. The odds were stacked heavily against success, but the focus and persistence of these two men carried the day. Mitch Lynd and Ed Fackler believed!

With the release and likely success of EverCrisp®, the Midwest Apple Improvement Association stands on firm ground. The fact that other varieties are in the pipeline and that the association is nationally recognized as a player in apple breeding is a testament to the vision of Mitch and Ed. Both spent countless hours planning the program. Both spent enormous energy and time making initial crosses and discussing how to handle the trees. Other people have stepped up and made big contributions to the forward motion of the organization, but this is a day to thank Mitch Lynd and Ed Fackler. We apple growers and apple eaters owe them a big and continuous thank you as they began and cared for "the trickle" and what it became.

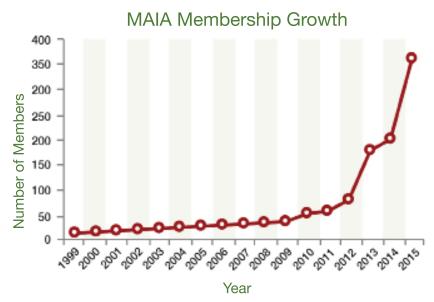
President's Report

- In June, 2016 the EverCrisp® Market Advisory Committee (EC-MAC) was formed. The committee will be responsible for releasing, promoting and establishing packing specifications for the branded apple EverCrisp. The Committee includes 2 apple marketing companies from MI and NY and 1 each from OH and PA. There will be some EverCrisp apples sold in 2016 to a few small retailers. The ECMAC is projecting 30,000 packed boxes in 2017 and 85,000 cartons in 2018. Volume will exceed 200,000 cases in 2019.
- There has been incredible excitement generated in the Farm Market, Pick-Your-Own and Farmers Market community with this years' limited availability of EverCrisp®. We are excited to continue to build on the grass roots availability of EverCrisp and will work to build EverCrisp into an exciting and profitable brand for the MAIA membership!



Bill Dodd MAIA President

A Request for Proposal has gone out to Public Relations firms to assist in the EverCrisp® launch. The Midwest Apple Improvement Association and Fruit Growers Marketing Association have contributed significant EverCrisp seed money to help begin promotional activities and build brand awareness. The members of the ECMAC have also pledged per box fees, beginning in 2017, to be used for promotional activities.



MAIA Name Contest!

We are soliciting name ideas for our 2 upcoming releases, MAIA11 and MAIA12. See "Announcing New MAIA Releases in 2017" and "Growing 21st Century Apples" for more details about these exciting new selections. Do you have a great apple name? Or a whole list of great apple names? Please email your contest entries to newsletter editor Amy Miller (amy.ciderwood@gmail.com) by Jan. 13, 2017. Unlimited entries per person! The winning names will be decided at the MAIA board meeting in January, 2017. Each winner will receive 100 free trees of elite MAIA selections!

MAIA: What's the Deal?

There is a need for a Midwest apple breeding program as other regions' programs are unlikely to produce varieties that will be economically viable for the lower Midwest. We are an organization founded and maintained by growers to produce apple varieties for the Midwestern United States and wherever those varieties may be adapted.

So - what's the deal again?

The Midwest Apple Improvement Association is organized as a cooperative. Membership is open to anyone and costs \$100 per year. This money supports apple breeding.

MAIA membership gains the member access to varieties and selections developed by the program and also allows the member to participate in the production and evaluation of new material.

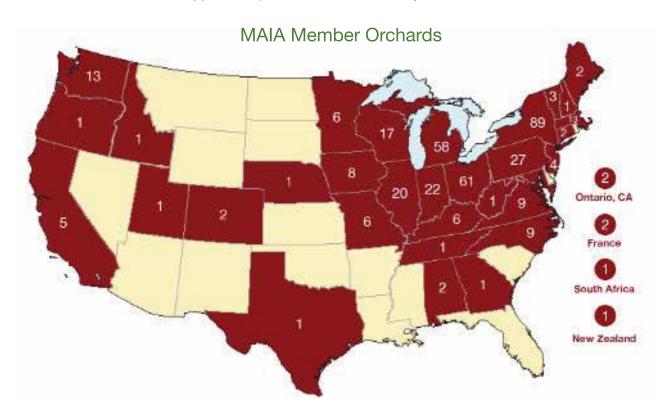
MAIA does not propagate or sell trees. There are a number of nurseries licensed to propagate our material and if your favorite propagator does not currently hold a license with MAIA it is possible for them to acquire one.

MAIA has in hand or has applied for patents for

three varieties. We are gathering patent data on three more and have a 'playbook' of elite selections vying for a place in the queue to be patented and released. Members can access any of this material. If the selection is currently unpatented, access can be acquired by signing a testing agreement.

When a member accesses a patented variety (s) he signs a 20 year contract and pays a one time \$1/ tree royalty to MAIA (handled through the nursery when paying for trees). In years 4-10, the grower agrees to pay a 'trademark fee' of \$.20 per tree per year - for example, if you purchase 1000 trees of MAIA1, in the year of the 4th leaf you will receive an invoice for your \$100 membership plus \$200 total trademark fees on those 1000 trees - in years 11-20 that trademark fee is \$.30/tree/year so those thousand trees will cost you \$300 per year.

Is that a good deal? Several hundred growers think so. We think it's a rather inexpensive way to obtain 21st century apple varieties and keep new and improved material coming. But you'll have to decide for yourself.



Announcing New MAIA Releases in 2017!



MAIA11

Patent applied for in 2016

Origin: Honeycrisp x Fuji

Harvest Date: Close to Golden Delicious time

Color: Red/Bi-color Scab-Resistant: No

Fireblight Resistant: Undetermined

Long Keeper: Yes

Crispness: Very high (this exceptional quality

is long-maintained)

Sweet/Tart: Sweet/tart with floral tones

Fruit Size: Medium
Tree Vigor: Medium

Attributes:

- Matures in the "sweet spot" of late September
- Ethylene Resistant (long harvest and storage windows)
- Fruit does not drop
- Crispy texture, pressure 13-16 lbs (similar to Honeycrisp)
- · Floral flavor with pleasant sugar-acid balance
- Medium-sized fruit (2.75in-3.25in)
- Bi-color with over 50% rosy blush
- Tends toward biennial bearing
- Sets multiple fruit per spur
- Fireblight susceptibility but not mortality
- Skin-cracking can lead to summer and/or storage rots

Results from Consumer Taste Panels (% Preference)

West Lafayette Farmer's Market 23 Sept., 2015 — 119 votes

(MAIA selection): 32%

MAIA11: 29%

Pixie Crunch: 29%

Honeycrisp: 9%

Lynd Fruit Farm 27 Sept, 2015 — 101 votes

MAIA11: 44% (MAIA selection): 26% Pixie Crunch: 16% (MAIA selection): 15% Lynd Fruit Farm 3 Oct, 2015 — 129 votes

(MAIA selection): 35%

MAIA11: 32%

Jonagold: 21%

(MAIA selection): 11%

MAIA11 and MAIA12 will be available from Wafler Nursery for 2019. Have a great apple name? Help us name MAIA11 and MAIA12 and win free MAIA trees! See "MAIA Name Contest" on page 4.



MAIA12

Patent applied for in 2016

Origin: Honeycrisp x Fuji

Harvest Date: 3-5 days before Honeycrisp

Color: Pink/Red Scab-Resistant: No

Fireblight Resistant: Undetermined Long Keeper: Autumn apple only

Crispness: High

Sweet/Tart: Sweet/tart

Fruit Size: Large

Tree Vigor: High (for this cross)

Attributes:

- Matures late August-early September
- Long harvest and storage windows compared to other late summer varieties
- Easier to consistently produce than other varieties of the same season (i.e. Big Gala and Honeycrisp)
- · More southerly adapted than Honeycrisp
- Crispy texture, pleasant flavor with sugar-acid balance
- Regular shape, large-sized fruit (3in-3.5+in)
- Red/pink color, more green on younger trees
- · Modest tendency toward biennial bearing
- · Easily thins to one fruit per spur
- Fireblight susceptibility but not mortality
- May complement Honeycrisp and excite consumers until MAIA11 harvest

Results from Consumer Taste Panels (% Preference)

Lynd Fruit Farm 5 Sept., 2015 — 136

MAIA12: 40% (MAIA selection): 25% Big Red Gala: 23% Golden Supreme: 12% Lynd Fruit Farm 5 Sept., 2015 — 137

MAIA12: 42% (MAIA selection): 26% Big Red Gala: 22\$ Golden Supreme: 9% Lynd Fruit Farm 6 Sept., 2015 — 120

MAIA12: 38%
Pixie Crunch: 34%
Honeycrisp: 18%
(MAIA selection): 9%

Lynd Fruit Farm 13 Sept., 2015 — 200

MAIA12: 36% Honeycrisp (red): 29% (MAIA selection): 19% Pixie Crunch: 18%

MAIA7 and MAIA8 to be Introducted in the Gurney's Seed & Nursery Co. Catalog

On September 9th, 2009 6 members of the Midwest Apple Improvement Association met at Eckert's Orchard in Belleville, Illinois to make a final evaluation of some 60 Goldrush x Sweet Sixteen crosses (out of an original seedling block of around 1200). Out of the 60 sampled, 6 were chosen to be propagated for further evaluation—the common trait being an array of rich, unique flavors ranging from sweet licorice, to strawberry milkshake to cherry pie.

n a similar scene, elite selections were made from a seedling block of open-pollinated Honeycrisp at Lynd's Fruit Farm in Pataskala, Ohio—all featuring extraordinary traits over traditional apples on the market.

Fast forward nearly 8 years and 2 of MAIA's elite selections from these plantings have had patents filed by MAIA and are slated to be introduced in the Spring 2017 Gurney's Seed & Nursery Co. catalog/website. The final selections were made based on results from tasting panels held in 2013 and 2014 and conducted at the research farm of Gurney's, and sister company Gardens Alive, in Tipp City, Ohio. The 2013 tasting panel was a blind comparison against 13 elite MAIA selections and the 2014 tasting panel included 6 advanced MAIA selections and 4 released, well-known varieties.

Taste-testers raved about the eating qualities of these 2 selections and it was this eating experience, along with strong grower attributes such as productivity and disease resistance, which clinched the decision to advance on these exciting new apples.

The first of these elite selections, from the open-pollinated Honeycrisp block, is MAIA7, to be marketed under the name Crunch-A-Bunch®. What many have called an improved and earlier ripening version of Goldrush, Crunch-A- Bunch offers the intense and complex flavor profile and great storage-ability of Goldrush but with an improved appearance, a crisper texture and overall higher consumer ap-

peal. The flavor complexity is apparent when reading notes from various tastes tests, where flavors have been likened to pineapple upside down cake with hints of almond, bright and herbal with a hint of tarragon, delightfully sweet-tart. Crunch-A-Bunch appears to be resistant to scab and fireblight and is extremely precocious and productive.

The second selection, from that fateful Goldrush x Sweet 16 cross, is MAIA8. It will be marketed under the name Bakers Delight®, a name suggested by Gurney's customers. Baker's Delight is indeed a superb baking and dessert apple, with the richest, most complex flavor you can get from an early to mid-September ripening variety. The flavor has hints of honey, cinnamon, anise and vanilla with a delightful floral fragrance. Medium-sized apples have an attractive, glossy red finish and do not brown easily



Crunch-A-Bunch® (right) compared to Gold Rush (left).

Photo Credit: Gardens Alive!



Baker's Delight ®. Phroto credit: Gardens Alive!

when cut. This variety is an extremely heavy annual bearer, and apples hang on the tree for an extended period with no loss in flavor quality – allowing for a longer picking window.

Gurney's Seed & Nursery Co./ Gardens Alive! has been an active supporter of the Midwest Apple Improvement Association's efforts from early on in the organization's history and looks forward to continued collaboration with MAIA. This past Spring saw the planting of more seedling crosses at the Nurseries Tipp City research facility, with an eye on the future of great improvements in the world of apple breeding. The focus on superior eating quality, disease resistance and reliable cropping translates to varieties which will be of great success with home gardeners and hobbyists—the core Gurney's customers.

Serious commercial tree numbers of these two new releases are not anticipated to be available till the 2019 planting season as the nursery ramps up bud wood. Interest in trees for this purpose should be directed to Felix Cooper VP Horticulture Gardens Alive (felix@gardensalive.com)

> Felix Cooper Board Member

EverCrisp®

n Sunday, October 9, 2016, the Columbus (OH) Post-Dispatch newspaper published a front page feature on Ever-Crisp® (MAIA1) and the organization that developed it - well done, accurate, the most comprehensive exposition to date, I'd encourage the reader to search it out on the web. There is even a 3 minute video attached. One interviewer tried repeatedly to bait me into calling EverCrisp 'the perfect apple'. That would make a nice lead for a story but would also be a demonstratively false contention. As well as this apple is perceived, it is not 'perfect'. MAIA1 contains none of the genes for scab resistance and we'd all love to have it ripen the last week of September instead of late October. It can be challenging to get the tree to fill its space (although I have seen several large plantings where it is being managed superbly). Fruit on 2nd-3rd leaf trees commonly have a green background color that does not go away, resulting in a muddy brownish finish. This is possibly nitrogen related because we do observe fruit on third leaf trees that has a bright finish, as does the fruit from the ortet. I will concede that the beauty of this apple is of the 'MaryAnn, not Ginger' nature. Continued on next page...



EverCrisp® growing at Schweitzer Orchards.
Photo Credit: Nick Schweitzer





Left and Right: EverCrisp®, MAIA's first select apple, has been wowing growers and consumers since its first harvest in 2008.

Photo Credits: David Doud

Reports are coming in from 2-3-4th leaf plantings, generally positive but in two cases this fall, negative also - MAIA has always stressed honest evaluation and communication about EverCrisp® and all our selections.

This season I observed MAIA1 trees in Indiana in their 4th leaf which overset the crop (B.9 rootstock - the trees received a standard spray program and weed control but no other attention). These trees have stopped growing without filling their fruiting volume. I hand thinned these trees when I visited September 10 to keep them from breaking down entirely and when I inspected them in late October the fruit I left had all cracked.

We received a report with a picture from a third leaf planting in Maryland with cracking near the calyx on "30% of the crop". This grower is planning to use a 'Provide' program next year to reduce this flaw. It should be noted that this grower routinely uses 'Provide' on his Stayman and Goldrush plantings as this location is favorable to development of cracking.

Let's take a few paragraphs to discuss fireblight (FB, *Erwinia amylovora*). Our experience with FB and MAIA1 is limited. My farm had an epidemic across all varieties in 2013 the likes of which I had never seen in my lifetime of living on a fruit farm, and I observed a significant amount of FB on MAIA1 at Lynd's (OH) this past season. The denouncement is that MAIA1 sensitivity to FB appears to be similar to its parents (Fuji and Honeycrisp). In other words not the worst, not the best.

BUT... there are thousands and thousands of trees out there being pushed with nitrogen to create extension growth and fill space. This not only predisposes the tree to respond strongly to a fireblight infection but also tends to initiate secondary bloom (bloom on one year old wood). This secondary bloom opens later than the primary bloom resulting in an extended period of susceptibility. Do not stop monitoring the disease models and put the Streptomycin away too soon.

Please use Best Management Practices in regard to fireblight and MAIA1. Avoid susceptible rootstocks. Deflower newly planted trees. There has been no report of any major issues and let's keep it that way. My experience/observations suggests that fireblight on mature trees will not threaten the viability of the planting, but I do worry about these young, soft, green, high N plantings. Do not risk your investment and take FB for granted.

As I type this, it has been almost exactly 8 years since I had the privilege of taking the first bite of an apple destined to be patented as MAIA1 and appropriately trademarked and branded 'EverCrisp'. I'm astounded by the chain of events from November 2008 through 2016. From one tree eight years ago there are now 500K+ trees in the ground in over 20 states with around that many more trees being propagated/on order. A wholesale advisory committee has been formed to develop standards and coordinate distribution while tending to details such as packaging, PLU codes, pricing, etc. A modest quantity of wholesale apples are about to be distributed to retailers. Trees are being propagated for evaluation in Europe, Africa, South America, Australia/New Zealand. All testimony to this apple which makes even a jaded grower go 'Wow!'. **David Doud**

Board Member

Growing 21st Century Apples

Is your 'game' good enough?

MAIA is releasing a series of apple varieties demonstrated to be preferred based on consumer evaluations. In these consumer studies, details of which can be found in the 2015 'Ortet', well grown specimens of these new varieties outcompeted standard varieties grown, harvested, and handled to be at their highest level of quality. These new apples have the texture and flavors that provide satisfaction and return business.

hese varieties generally have higher brix (sweetness) and more complex flavors than commonly available varieties. To develop these attributes the fruit must be grown at the proper crop load on trees with healthy foliage. Overcropped trees with mite damaged foliage will produce insipid fruit. MAIA will provide all the information and observations we have about the nuances of each selection, however, implicit in 'new varieties' is the fact that there are not many years of experience and studies to provide specific guidelines on thinning, harvest timing and post-harvest handling. The Midwest Apple Improvement Association is organized as a Cooperative; there is an inherent obligation for members to contribute. As experience is gained with these new selections, members are urged to report to MAIA the specifics of what worked, what didn't work, positive observations, and certainly any negative experi-

ences so as to help your fellow cooperators achieve success.

This year MAIA applied for patents for 'MAIA11' and 'MAIA12'. These selections are currently unnamed, read elsewhere in this newsletter about winning trees if you provide the name(s) we use.

MAIA11 matures in the sweet spot of late September. It is a Honeycrisp X Fuji cross, out of the same lot of seedlings which produced MAIA1 (Branded as EverCrisp®). It is one of our 'ethylene resistant' selections with a long harvest window and long lasting crispy texture. While MAIA1/EverCrisp is 'crispy' and 'solid' (16-20 pounds), MAIA11 is 'crispy' with pressures similar to Honeycrisp (13-16 pounds) and is noticeably more tender than MAIA1/Ever-Crisp. Its flavor is a balance of sugar and acid and does not attack the palate with a big sweet burst. It is not 'Early EverCrisp'! Culturally, it tends to biennial





Left: (Clockwise) Diane Miller, Amy Miller, and Matt Thomas collect patent data for MAIA selections. Photo Credit: Amy Miller Right: Several new MAIA varieties have been patented and are set to appear in nursery catalogs. Photo Credit: Gardens Alive!

bearing and we are suggesting it be treated similarly to Golden Delicious when chemical thinning. Overcropped trees will have poorly colored fruit which will not ripen in a timely manner and will not have good quality. There is a long harvest window as the fruit does not drop. The apple is medium size (2.75" -3.25") with the 3" and larger fruit coming from the king bloom. It appears as a bi-color with a rosy blush over 50%. Fireblight sensitivity appears somewhat worse than its parents, though trees do not seem to succumb to an infection. Young trees often have secondary bloom which provides an extended window for FB infection and apples set on such bloom are inferior. Cracking of the skin can be a problem, particularly on vigorously growing young trees. The apples do not split wide open, but it is common to have 'micro-cracks', barely visible, that allow pathogens to enter the apple. As a result, susceptibility to summer and storage rots is worse than average and it would seem a 'Provide' spray regime would be in order, at least for younger trees - the ortet (original tree, now 17 years old) does not appear any worse than average in this concern so there is hope that the skin cracking will be less an issue in mature trees.

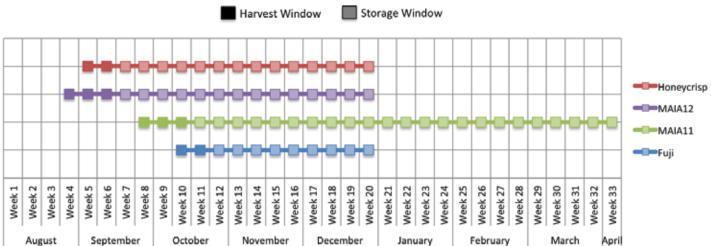
MAIA12 is another Honeycrisp X Fuji cross that ripens in the same harvest window as Honeycrisp. Why would we release an apple that matures with the hottest variety of a generation? Fewer cultural problems and it appears better adapted to warmer

regions. In consumer taste evaluations MAIA12 scores as well as Honeycrisp (sometimes better, sometimes worse, sometimes a tie). MAIA12 is a medium-large apple (3-3.5") with pinkish-red full color - the color is reminiscent of the pink on original McIntosh as grown in the Midwest. The shape and color are such that it is easily distinguished from Honeycrisp and growers will sign a contract to sell it under the MAIA trademark name. It must stand as its own variety. Personally, I look forward to having a worthy alternative to Honeycrisp which has good packout. As an industry we are killing the golden egg laying goose by growing (or trying to grow) Honeycrisp far outside of its climatically adapted range. Although demand is unlikely to ever go away, I look forward to Honeycrisp occupying a smaller niche in my retail varietal mix and to be able to offer an easier to grow alternative that will provide satisfaction to the consumer.

These new varieties and the others in the pipeline offer opportunity to the grower willing and able to do the culture. However, if your Golden Delicious have big crops one year and few apples the next, or your Fuji crops consist of large numbers of smooth greenish fruit every other year, do not look to these new varieties for the salvation of your business.

> David Doud Board Member





^{*}Harvest window based on averages from northern OH and IN, no chemical harvest adjustment.

^{**}Storage window based on normal 39°F cold storage.





Top Left: Artisinal hard ciders come in a wide range of colors and flavors. (photo credit: Amy Miller). Bottom Left: An array of European hard cider apples (photo credit: Brent Baker). Below: A glass of cider is perfect for a summer day (photo credit: Matt Thomas).



MAIA Selections Being Evaluated for Hard Cider Potential

The artisanal hard cider potential of MAIA selections, as well as currently grown varieties, will be evaluated by Ohio State University scientists and collaborating industry hard cider makers in a new \$40,000 project funded by the Ohio Department of Agriculture through the USDA Specialty Crop Block Grant Program. Our goal is to encourage regional specialty hard ciders which utilize regional varieties, similar to the strategy the Ohio wine program has followed. Imagine a quality Midwest hard cider made from EverCrisp and Goldrush! We will find out if that is possible.

There are four objectives to the project:

Objective 1: Evaluate currently grown apple varieties in Ohio to categorize them into the sweet, tart, bittersweet and bittersharp designations used by cider makers. Educate apple growers and cider makers on these categories, which varieties have special value for cider and the importance of these categories for the blending techniques used by cider makers for artisanal ciders. (Achieving value in the near term)

Objective 2: Identify new bittersweet and bittersharp selections from within currently existing fruiting seedlings of the MAIA breeding project. Establish a collection of these selections at OSU Kingsville research station to evaluate their growth, fruiting habits and disease resistances and make these selections available to apple growers. (Achieving value in the longer term)

Objective 3: Organize an Ohio Cider Guild. Develop a 'cider apple exchange' electronic list-serve

to assist apple growers and cideries/wineries in selling/buying cider apples and to develop an Ohio cider community. Add a cider track to the Ohio Produce Growers and Marketers Association winter meeting to bring together apple growers and cider makers. (Cider community building for the near and long term)

Objective 4: Verify project impact on competitiveness of Ohio apple and cider industries, including innovation, sustainability and economies.

The project started in Fall 2016 and will run through Fall 2018. We are currently utilizing small batch juice samples, approximately a peck of apples juiced by a 1 bag Goodnature Squeezebox press, freezing the samples and then analyzing juice for percent tannin, brix, pH and titratable malic acid. Selections/varieties will be sorted into categories of sweet (tannin <0.2%, acidity < 0.45%) and sharp (tart) (tannin <0.2%, acidity > 0.45%). While unlikely but definitely noteworthy, a few varieties could fall into the categories of bittersweet (tannin >0.2%, acidity <0.45%) or bittersharp (tannin >0.2%, acidity >0.45%).

After gathering data on separate juices we will work with cider makers to begin to make blends of juices. The cider makers will ferment these using various techniques and we will utilize taste panels to determine consumer preference and acceptance. We believe hard cider is a growing and evolving product and we look forward to it becoming a region-

al specialty project utilizing MAIA and other regional varieties.

We solicit your comments, suggestions and collaboration. Contact Diane at: miller.87@osu.edu; contact Andy at kirk.197@osu.edu

Andrew Kirk
Research Specialist,
Ohio State University C

Diane Miller Special Advisor, Ohio State University



Above: Hard ciders can vary dramatically in color (photo credit: Amy Miller). Below: Jugs of artisinal hard cider are currently being tested (photo credit: Brent Baker).



Remembering the "Plurality of Perfection" Principle

In the food business no one choice in any food category is the first choice of everyone. In the apple category the flavor and texture variation among the choices have traditionally been subordinate to appearance variations until the introduction of Honeycrisp. Honeycrisp upset the apple cart, to say the least. Apple growers like myself still seem somewhat surprised that Honeycrisp texture could drive so many consumers to nearly ignore appearance and flavor considerations in their pursuit of a texture preference.

s we growers attempt to catch up with this now obvious consumer shift in apple preference it will be easy to overlook the fact that not everyone thinks Honeycrisp texture trumps all other considerations. What will the new mix of second, third and fourth ranking choices look like and how significant will these lesser ranking choices stack up against Honeycrisp? Our testing data clearly show EverCrisp® will match or exceed the demand for Honeycrisp and it appears it will be better adapted to growing conditions much further south than Honeycrisp. EverCrisp®, like Honeycrisp, though very highly rated, will never be the first choice of everyone at all times.

It remains to be seen but my prediction is for EverCrisp® to take a much bigger bite out of Fuji sales than Honeycrisp sales. Over a period of years I think the EverCrisp® will eventually overtake Honeycrisp in

all weeks but the period from Honeycrisp harvest to EverCrisp® harvest. What is less clear to me is the future demand for the third, fourth and fifth choices and what they will be.

My first choice for breakfast is oatmeal and salmon but eggs and bacon with raisin bran or shredded wheat or pancakes breaks up the boredom repeated doses of my favorite begins to deliver. It's the same for apples. EverCrisp® is my favorite but I have to eat an occasional Suncrisp or Goldrush to break up the boredom. Variety is the spice of life. How to best deliver it within the apple category remains to be seen but consensus is building for offering more variation from the highly uniform standardized apple flavor and texture now commanding most of the space on grocer's shelves where the big emphasis for variation has focused on variation in appearance alone, a green granny next to a red delicious, next to a Golden Delicious and a striped Kiku fuji with a shot of Macintosh, Jazz and Jonagold or Cameo.

While all these choices offer considerable appearance variation and some flavor variation none come with the crispy texture offered by dozens of newly emerging choices whose Honeycrisp dominated pedigree delivers the newly emerging stan-

dard of expectation for "better crispy" texture. Our breeding program offers choices in MAIA7, MAIA8, MAIA11, MAIA12, and others still to be released, most with improved crispy texture combined with diversity of flavor and maturity



dates. While none will match EverCrisp demand, they each will deliver significant market share because they offer a desirable variation to Honeycrisp and EverCrisp. Our testing shows these to be superior to the other choices now on grocer's shelves. I am confident our secondary choices will compete well against the secondary choices limited to growers having access to the "managed" cultivars from Washington, New York, Minnesota and New Jersey while EverCrisp will trump anything we've seen from anywhere.

Mitch Lynd Lynd Fruit Farm, MAIA co-founder

