



# MIDWEST APPLE IMPROVEMENT ASSOCIATION

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Spring 2005

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## President's Message

Jim Eckert

Diane Miller, Mitch Lynd and I met with Luke Messinger, Executive Director of the Dawes Arboretum. They have generously given us space to establish seedling blocks, the Kazak elites and other material that Diane has collected. We can do good things with this land supply and Diane's hard work. Budget cuts hamper her ability to work with our material: this year a \$2500 donation from Gardens Alive via the Ed Fackler connection has gone directly to support Diane. Money is a chronic problem with MAIA, and we are considering the 501(c)(3) avenue for our organization to help secure funding. This status as a nonprofit tax exempt organization allows contributions to be tax deductible for the donor. It also muddies the waters on the ownership of any material generated, since we would be serving the "public interest." We need to chew on that one for a while! Meanwhile, my 100 bucks and yours is needed. Thanks for sticking with us.

## Annual Meeting

This year's annual meeting will be held at the Marion County Extension Office in Indianapolis, IN on Friday, November 11<sup>th</sup>. We will meet together with the NE-183 apple cultivar evaluation project.

Marion County Extension Office, 6640 Intech Blvd Indianapolis, IN 46278-2011

<http://www.ces.purdue.edu/marion/>

The following information comes from the NE-183 website ([www.ne183.org](http://www.ne183.org)):

Apple production in the United States is a strong and viable industry producing a crop value of over \$1.6 billion dollars annually. Much of the growth and economic viability of this industry has been based upon the development of cultivars for new and traditional markets. Increasingly the U.S. is competing with foreign producers. Chile, Brazil, South Africa, New Zealand, the European Economic Union, and eastern European countries all impact the

market price and sale of apples in the United States. In order to stay competitive it is important to rapidly deploy new and viable apple cultivars. This research will test the performance of new apple cultivars for different growing regions within the U.S., and develop new protocols for managing these cultivars.

### NE-183 objectives:

- I. Evaluate horticultural qualities and pest susceptibility of new apple cultivars, strains, and advanced selections at numerous locations throughout the United States to determine both the limitations and positive attributes of these cultivars.
- II. Develop horticultural and pest management strategies for new cultivars or cultivar strains that are emerging as commercially-acceptable cultivars.
- III. Compare the cost of production and profitability of new apple cultivars.

## 2004 Purdue crosses were sent to Meadow Lake Nursery

Progeny no.	Cross	No. seed
3552	Coop 39 x GoldRush	41
3553	GoldRush x Fuji	118
3554	GoldRush x Scarlet O'Hara	622
3555	GoldRush non-emasculated x Enterprise	445
3556	Enterprise non-emasculated x GoldRush	<u>110</u>
		1336

# Spring 2005 MAIA Projects

Diane Miller

## Maintenance of Projects at Dawes:

Thanks to Mitch Lynd for maintenance of seedlings at Dawes Arboretum! Mitch put on herbicide and tended to the seedling trial area (big fenced area) and the Kazakh trial area (old fenced area) at Dawes. Here's what we now have at Dawes: several thousand trial seedlings (2<sup>nd</sup> year in ground), 900 Kazak seedlings (6<sup>th</sup> year in ground), 240 trees composed of the following: Kazak elites from Phil Forsline (30 or so selections; 3<sup>rd</sup> year in ground; these were trees that looked good enough to the germplasm collection team that they collected scion wood along with seeds), Jules Janick's PRI releases or advanced selections (3<sup>rd</sup> year in ground) plus some miscellaneous cultivars exhibiting desired traits (e.g. late leafing, reliable yielding).

We have a new Dawes collaborator, Sara Lowe, whom recently completed her M.Sc. degree in nursery crops at OSU with Hannah Mathers. It's great to have Sara as a contact person.

## Work yet to be done this Spring:

We have around 2000 seedlings to get planted yet in the seedling trial area along with some fertilizer to apply all around.

## Seedlings in the Pipeline:

There should be a few hundred trees of 5 of the latest blooming, most disease resistant Kazakh seedlings from Dawes crossed with Honeycrisp female parent growing at Meadow Lake Nursery. I think these will be grown a second season to get bigger size before transplanting to Dawes.

## Seeds in the Pipeline:

We sent 5000 seeds of Honeycrisp female parent/GoldRush

male parent to Todd Erickson at MeadowLake Nursery in Oregon to grow into seedlings. These too will be grown for 2 seasons to get some size to the trees so they can more easily be planted at Dawes using a tree planter.

We also sent a few hundred seeds of Decio or Firiki (reliably yielding, multiple disease resistant European cultivars) by PRI Princess (the latest thing blooming when the pollen arrived from France last year) to Meadow Lake.

## Crosses Made in Spring 2005:

We used Honeycrisp and GoldRush again this year as parents. Our logic was that it appears to be a powerful cross but we may have trouble getting vigor in the seedlings—in other words, it may take a couple years worth of seeds to get enough vigorous seedlings to have a chance of a winner.

## Proposed Future Crosses:

Please put some thought into this.

I hope to either get elite Kazak pollen from Kazakhstan next year or in fact get some crosses made in Kazakhstan for MAIA. Parents would be selected based upon fruit quality, disease-resistance, etc of Kazak elites.

## "Needs":

We are running this organization on a small budget which is okay, except in the new land grant system, activities are prioritized by available finances. We have to get our tax status arranged to be able to seek grant money and contributions. I think it is also important for members to be active and vocal in support of the MAIA. Good publicity is a powerful tool. Thanks for your interest thus far and let's keep it up for the long run.

## Evaluating Seedlings in the Field

Many of you have seedlings from initial MAIA crosses that probably bloomed in spring 2005 and may have fruit this fall. So now the fun begins! It doesn't matter if you don't remember what the particular cross is, it's time to start looking for great apples! Remember, Honeycrisp doesn't have either parent that it was initially reported to have. Gregg Bachman and Dano Simmons each have at least one seedling among those that have fruited so far that they think has some great traits.

Obviously since the bottom line is outstanding apples, you can quickly eyeball out the losers and mark the trees for removal. Dave Bedford in Minnesota uses a can of orange spray paint to mark losers on the trunk for removal. He uses a different color to spray trunks of trees he's especially interested in continuing evaluation in future years. So, get organized and choose a system that will work for you. I think the spray paint idea is better than using flagging which fades and disappears! You can be fearless in your evaluations because, as you know, we're only looking for great apples—and you people are all apple experts. If you think an apple is not very good, we'll all take your word for it—we don't need to taste it. There are enough mediocre apples around.

For seedlings that produce fruit that catches your eye, you need to record some data so you can follow the tree the next year. Anna Whipkey has a form on the MAIA website ([www.hort.purdue.edu/newcrop/maia](http://www.hort.purdue.edu/newcrop/maia)) called "Selection Evaluation" that you can use to collect some information on seedlings that appear interesting. Data to record include fruit size (don't ding out for too small unless it's way too small), shape, crop load, fruit color, overall appearance, characteristics of the flesh and flavor along with tree/fruit disease and pest incidence. Also record your estimate of ripening time, as it's difficult to get that correct in one season's evaluation. If you've got something that knocks your socks off—call another member of the MAIA and let's document that apple by photos and additional evaluations and get some additional trees propagated.

As an MAIA group we need to come up with a strategy for evaluating potential selections in one than one location. So think about how to do this efficiently and effectively and this topic will be a discussion item at the next MAIA meeting. But mostly, in fall 2005, take some time to evaluate your seedlings—make it a family event or a neighborhood event.

# The Future of Apple Interpretation at The Dawes Arboretum

Sara Lowe, Education Director

We are a long way off from cider time, and yet apples are on many people's minds. It could be the crab apple trees, blooming like crazy in yards across the state, or it could be the approach of perfect picnicking weather, harkening our memories back to mom's luscious apple pies. Whatever the reason, apples hold a core position in the American way of life. Their bloom heralds the beginning of the warm season, even if the weather should speak differently. Their fruits were instrumental in the survival of pioneers and they continue to be a significant crop and symbol today.

According to one study by the USDA, every American eats approximately 65 apples per year. From sauce to cider, apples have found a noteworthy place in American diets, yards, tables and pantries, and yet many people are sadly unaware of how the apples they enjoy came to the Midwest.

Ohio has been involved in apple growing since John Chapman, also known as Johnny Appleseed, first made his way across this state at the turn of the 19<sup>th</sup> century. The Living Legacy Apple Orchard continues the tradition set by John Chapman as well as General Rufus Putnam, who brought apple tree scions from New England to the new settlement of Marietta. The Ohio Land Company recognized the importance of apples as a staple in the settlers' diet. Homesteaders were required to plant 50 apple trees in the first year of residence. They were in turn supplied with fresh, dried and stored apples over the winter for pies, sauce, butter, jelly, fritters, cider and vinegar.

The Living Legacy Apple Orchard contains many historic apple varieties. These selections were either brought from other countries, developed in the United States or were grown in this part of Ohio prior to 1845. This orchard serves as a living reminder of how trees can be a link to the past. The site was chosen by Bertie Dawes for an earlier apple orchard. Forty-two apple trees were ordered in 1926. Records indicate that this same site was part of the Brumback orchard, dating back to 1868. A letter from Elma Brumback to her brother Henry in 1886 mentions an old orchard and new orchard, both within site of the south porch of the brick house.

The Dawes Arboretum has a very strong association with the local schools. Because of this tie-in, we often have educational opportunities for school groups. While field trips to The Arboretum are a frequent occurrence, we also offer off-site programming. As an educator, I get interesting looks when I talk about any kind of plant as being fascinating. Children simply find frogs and raccoons more interesting than apple trees and ferns. However, there is a curiosity that children maintain towards all things alive. Once you show children the link between themselves and other living things, the awareness that follows is astounding. This is true of adult education as well, but certainly not as strong as with children.

One program to be implemented is "The Apple Corps." This program is for both adults and children. Because of the large

amount of information, there are several parts, either spread out through a day-long program or a series of shorter programs. In the first part of the program, students will look at the apple tree; dendrology, dwarf and standard sizes. A walk through an apple orchard, such as Lynd's Fruit Farm, will allow students to see different trees and varieties. Following this, an apple tasting exhibit gives the chance to sample many varieties and explain in their own terms what each apple offers in taste, smell, bite and looks. An additional class, to be held when conditions for apple grafting are favorable, focuses on tree planting, site selection, tree care and pest management. Students have the opportunity to graft their own apples tree and take a few home to plant and nurture.

School groups are encouraged to get involved. The plan is to give teachers a packet which introduces their students to the subject and gives ideas for various assignments such as writing a short story about an experience that they have had that involved apples. For example, one student might recall taking a trip to a pick-your-own pumpkin farm where they drank apple cider, took a hay ride and petted some goats. An assignment for higher grades might involve picking out an apple variety and writing an essay on its culture, benefits as a crop and its popularity.

With over 250,000 visitors per year, The Dawes Arboretum is committed to providing valid programs and stimulating opportunities for education. We wish to offer broader access to the apple research currently happening on the grounds including the Kazakhstan and MAIA research fields. As always, we encourage everyone to visit our grounds to explore, experience and enjoy.

## Midwest Apple Improvement Association Finance Report

### INCOME

Dues .....	\$5,150.00
Interest .....	\$137.69
<b>Total Income .....</b>	<b>\$5,287.69</b>

### EXPENSES

2004 Meeting .....	-\$310.00
Newsletter .....	-\$37.91
Postage .....	-\$64.30
Office supplies .....	-\$20.26
Treasurer .....	-\$700.00
Trees (growing, pollinating, planting) .....	-\$1,982.24
Fence .....	-\$13,959.50
<b>Total Expenses .....</b>	<b>-\$17,074.21</b>
<b>Balance on 12/31/04 .....</b>	<b>\$8,178.69</b>

# Looking for the Best in the Kazak Apples

## (an expanding project!)

Diane Miller

University researchers in the last generation put incredible effort into cultural manipulations to overcome genetic deficiencies in our commercial apple varieties. The current willingness of consumers to accept new varieties allows us to move beyond cultural tinkering with Red Delicious and Rome—now we are culturally tinkering with Gala and Honeycrisp! So...maybe there will always be the need for cultural manipulation but there certainly should be emphasis on trying to incorporate favorable genetic traits and “Hurrah!” to the MAIA for being part of the effort. The MAIA has “visioned” some fruit quality and grower-friendly improvements and now we as a group are working to figure out where to get these desired traits. I’ve been spending some time and effort thinking and working on this and want to bring you up to date and get your response and suggestions in return.

The MAIA evaluation at Dawes Arboretum of the wild apples from Kazakhstan is continuing. In Spring 2005 more than 60% of these 900 seedling bloomed—many for the first time. I was at Dawes on April 20 (along with Ed and Pat Fackler) to evaluate bloom amount and timing. The majority of these seedlings just bloom too early—probably 2 weeks before our commercial varieties. Dawes put in several hives of bees for pollination and even with cold weather we should have quite a few trees with apples this summer/fall so we’ll get the first look at apple fruit quality and traits in these trees. There are some seedlings which bloom more closely in timing with our commercial varieties but nothing that is late. Our MAIA goal is “reliable yielding”—maybe there are different ways to get there—and the couple nights of cold weather after April 20 should have done some selection for any blossom frost hardiness within these seedlings! How’s that for a positive spin on the problem? **Be prepared to taste some *M. sieversii* seedling apples this late summer/fall!**

The seedling which attracted my interest by first growing a spur in the spring and then blooming on that spur about two weeks later seems to be blooming both ways now—regular early bloom and later spur blooming. Maybe as the tree truly matures it will outgrow this interesting trait completely.

Working with these Kazak seedlings at Dawes opened an opportunity for me to go to Kazakhstan and make some apple friends there. I traveled to Kazakhstan in late August 2004 and came back in late December, through the Fulbright Scholar program of the U.S. State Department. My goals were to learn more about *M. sieversii* and to see what local scientists knew about the traits in the species. What I see at Dawes are interesting traits -but not good “packages” of traits to use for breeding. For quickest progress we need to learn as much as possible about what is in this wild progenitor and then find the best combinations of traits to use as parents, along with the PRI material. I think now we have contacts to even make crosses

for us in Kazakhstan and send seed to us—seed is much easier to import than vegetative material (in fact some wood I did import has lots of viruses and this will slow down our access to evaluating it).

Here are the top 10 things I learned:

**10. Forestry, botany and horticulture personnel don’t collaborate well in Kazakhstan.** The wild apples “belong” to forestry and botany. Commercial apple production “belongs” to horticulture. The Soviets introduced their commercial apple varieties to Kazakhstan, used *M. sieversii* seedlings as drought-resistant rootstocks and didn’t exploit the genetic potential of the “forestry” wild apples. Apple production for the entire Soviet Union was focused in Kazakhstan and Moldova and with the collapse of the Soviet Union there was an overabundance of apples and a lack of production expertise (non-Kazak nationals with money or intelligence emigrated). The lack of an extension service to assist in navigating information and smoothing relationships has seriously limited communication.

**9. Even at age 92, Aimek Djangeliev is still the main apple expert.** He is the one who crosses lines of forestry/botany/horticulture and was the researcher that the USDA collaborated with on collection trips. Because he is Kazak, and has great knowledge of the wild apple, the focus area of USDA collecting was in Kazakhstan. Unfortunately, he has no heir-apparent. The government is not financially supporting science well in Kazakhstan and consequently the best and brightest are not going into science.

**8. There is a commercial apple breeding effort continuing in Kazakhstan.** The Soviets had an apple breeding program in Kazakhstan and it has continued (on a greatly reduced budget) post-Soviet. The apple breeder is Yvgenny Salnikov and he has focused on “Aport”-type apples—large size, Melrose-type texture. The horticulture group also includes Raul Karychev (fruit teaching) and Marat Nurtazin (stone fruits). These people are working hard on a small budget. They have the idea to use elite wild apples but, incredibly, don’t have much access to the elites. They are very interested in what we discover from evaluating the Kazak material as they don’t have the resources to examine the material! They are very dedicated and I look forward to collaborating with them for a long time. Jules Janick and Anna Whipkey sent some PRI material to them in Winter 2005 for comparative evaluation.

**7. MAIA now has some additional interesting *Malus* germplasm resources.** I collected seeds of the red-fleshed wild apple (*M. niedzwetzkiiana*) along with some *M. sieversii* seeds, some seeds of *M. baccata*, and some of the apple breeder Yvgenny Salnikov’s crosses, shipped them back and, thanks to Gary Kinard at the USDA Plant Quarantine Office, now have seedlings growing here in Ohio. The red-fleshed seeds sorted out about 1:1 red/off-red seedlings: green seed-

lings. We saved only the deep red which was about 10% of total seeds. We have about 1500 seedlings total growing for future evaluation. I think we can raffle some of these at a future MAIA meeting! The actual crosses (a few hundred seedlings) can go to Dawes.

**6. Believe it or not, *Malus sieversii* is in the Kazak “Red Book” of endangered species.** The main reason for this is that it crosses with cultivated or domestic apple varieties resulting in “genetic dilution” of the wild material. Bees don’t know the difference between native wild apple and planted domesticated varieties. There are now regulations about where domesticated apples can be planted (at lower elevations) and nature preserve regions especially for the wild mountain apple.

**5. Expats provided me with a lot of help.** Of course, the U.S. Embassy cultural affairs people were helpful with details but were also always dealing with security concerns. Stan and Tami Brown were working on agricultural development through the Central Asia Harvest Project ([www.caharvest.org](http://www.caharvest.org)). Their project especially dealt with apple growing among the Uigher people of southeast Kazakhstan/western China. Ethan Rowland was a Watson Fellow student traveling around the world studying apples (“Multi-gene cuisine: tasting/assaying the apple’s global diversity”; <http://www.geocities.com/ethanappleseed>). I hope Stan and Tami and Ethan can be present at a future MAIA meeting to report on their work and travels. There were also two other Fulbright Scholars in Kazakhstan in 2004/2005—Richard Stone from Science Magazine was writing about the Soviet nuclear test site near Semipalatinsk and Roger Weatherington from St. Johns University was teaching journalism at KIMEP in Almaty.

**4. The United Nations Environment Programs are funding two programs involving apples—both of these are just beginning. There is a UN-GEF grant (around 10 million dollars) for reforestation of nature preserve areas in the Tien Shan Mountains with wild apple.** Quite a bit of original apple forests have been lost due to environmental degradation, overgrazing by sheep, economic development, etc. An additional UN/IPGRI project (also around 10 million dollars) is to look at biodiversity in backyard gardens in Central Asia and catalog and preserve this material. It is not easy to get projects done so there is not a guarantee that allocating money will ensure accomplishing the project objectives.

**3. Djangeliev has a collection of 150 or so “elite” wild apples at the main Botanical Garden that he is protecting and hopes to commercially develop.** He has agreed to let me evaluate the quality of the fruit of this material in fall 2005—so I’ll be going back for a month or so in September to do this. I submitted to the USDA Apple Germplasm group for funding to do this but the proposal wasn’t funded so I’m scratching for money for this trip. Let me know if there are specific things I should ask him about or traits to look for. He also has agreed to supply pollen of material that I choose—and they likely would make crosses for us (with some financial arrangement). This winter/spring they collected weather data and tree phenology data on these elites. It will be interesting to a) see if they actually let me evaluate this fruit and b) see how good the fruit really are.

**2. The USDA teams in the 1990’s to Kazakhstan did a great job during a window of opportunity.** The Soviet helicopters used to facilitate seed collection in the mountains aren’t running now! Phil Forsline led the teams and I admire the amount of traveling and collecting they did in Kazakhstan. I believe life for the average citizen is more difficult now than it was in Soviet times. Corruption is still a part of life, the people have not adapted to a market economy and the environmental issues Kazakhstan faces are great (contamination from nuclear testing, salinity of water, exploitation of oil reserves, etc). In the current political environment the few rich are getting richer and the poor are getting poorer.

**1. The wild apples from Kyrgyzstan may be more valuable and adapted to our conditions than the seedlings from Kazakhstan.** Stay tuned. *Malus sieversii* exists in the Tien Shan mountains which occur in both Kazakhstan and Kyrgyzstan. However, Kyrgyzstan was pretty inaccessible to the USDA teams. The *M. sieversii* in Kyrgyzstan occurs in similar latitude to Midwest U.S. (although in mountains) and may be more adapted to our conditions than the Kazak material (which occurs at higher latitude plus elevation—and explains the early bloom, early maturing features we see in most of the seedlings). Sometimes the Kyrgyz apple is called *M. kirghisorum* but I believe the USDA apple germplasm experts consider it now as a subspecies of *M. sieversii*.

Kyrgyzstan is more accessible now. I visited a Fulbright student (Robin Currey) in Kyrgyzstan who is studying biodiversity in home orchards. Robin has been around Kyrgyzstan for several years, knows a lot of people and helped me learn a lot in a two week trip. There seems to be no University experts on wild apples but there is some local knowledge. I’ll be going back in June 2005 on a Winrock program to visit some of these wild apple areas—along with working with farmers on nursery production of commercial varieties. It won’t be possible to see apples in June but I’ll do my best to make arrangements for future collaboration. It’s unlikely that any elites have been selected so this could be a start-from-scratch project. So MAIA will expand our investigations to “looking for the best in the *M. sieversii* (whether Kazak or Kyrgyz) and *M. niedzwetzkiana* (red-fleshed species)”.

I think the big question yet to be thoroughly answered is: “How many unique traits does this wild progenitor of apple have which are missing in domesticated apple?” There is at least one scab resistance type, previously unknown, in the material. That’s excellent. Now, what about tree growth types, bearing habits and fruit characteristics. This all takes a while to discover and MAIA finally has both bearing trees and access to wild material to participate in the discoveries. There are many other groups around the world also evaluating accessions of the material but MAIA’s focus on field evaluation and collaboration with Central Asian scientists is an important contribution.

**This years newsletter also includes a color plate of Kazakhstan apples and handouts from Joe Gofredda’s talk at the 2004 annual meeting**

# MAIA Board Meeting

## November 11, 2004, Newark, OH

### Present:

Jim Eckert	Mitch Lynd
Greg Bachman	Ray Armstrong
David Hull	Gene Wild
Ed Fackler	Doug Sheffelblin
Jules Janick	Susan Ramser

No minutes from November, 2003, Board meeting.

Financial statement presented by president, Jim Eckert.

Jules Janick questioned cost of deer fence installed at Dawes Arboretum to protect apple plantings. Cost was \$13,959. Mitch responded fence is an 8 ft high woven wire fence encompassing about 15 acres.

Jim Eckert reported 47 paid dues in 2004.

Ed Fackler reported author James Curran will be present at the Dawes meeting to give a presentation on his book *The Great American Apple Wizard*.

Jim Eckert requested digital photos of meetings be used in the future. Susan Ramser and Mitch Lynd agreed to handle the project. Jim Eckert asked Susan to do photos and press releases to "The Fruit Growers News."

Jim Eckert mentioned MAIA meeting not posted on Dawes web site. Ed reported Dawes director will speak at our meeting. Jim Eckert mentioned we could help with Dawes "apple tasting" program. Susan pushed idea MAIA should "partner" with Dawes in future projects involving agricultural programs.

Mitch felt trees we planted spring 2003 from Meadowlake in Oregon should have been larger. Weed pressure greater on 1' trees. These trees were 1 year from seed. Mitch asked Meadow Lake to only ship larger trees and grow small trees one more year.

Doug S. reported he plants 1 to 1 ½ ft trees thru plastic with shovel cut and cover slit with lime screenings.

Doug S. asked what % of seeds produces shippable trees. No one knew. Doug volunteered to plant small trees.

Jim E. stated MAIA needs to question Dawes on level of tree care we can expect from Dawes. MAIA needs to communicate to Dawes actual level of tree care to perform.

Jim E. questioned state of board of MAIA. Ed Fackler's term is up.

### Current Board is:

Ray Armstrong	Dave McAfee
Gene Wild	Dave Doud
David Hull	Greg Bachman
Jim Eckert	Ed Fackler

### Nominees:

Chris Doll	Susan Ramser
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Ray moved MAIA add Chris Doll and Susan Ramser, Jules Janick and Diane Miller to board.

Ed Fackler stated MAIA has not filed non-profit forms with IRS. Mitch noted if MAIA makes less than \$25,000, MAIA does not need to file 501-C3 with IRS and fruit growers can deduct contributions as business expense.

Greg Bachman noted MAIA plant material is non-public if we do not file with the IRS.

Feeling of board is that any worthy plant material produced should be available to all, even, outside organizations.

Ed Fackler reports "Western Cascade Fruit Society" would like to join as founding members. Feeling of board is that "Western Cascade" should contribute \$700 and make annual contributions of \$100.00. Only one mailing will be sent to "Western Cascade."

Doug noted MAIA's absence of by-laws. Jules re-affirmed the "goodwill" mission of MAIA. Plant material will be available to all who pay royalty fees.

Ed will ask Wally Heuser or Wanda to draft language about plant patents.

Gene noted trees grown by members are all "test" trees no matter how many trees are grown and trees are not to be propagated by members outside scope of MAIA. Fruit produced belong to the members.

Susan noted potential of 2<sup>nd</sup> organization to market apple variety should the right varieties be found.

Jim E. summarized feeling of MAIA to remain an unrecognized organization of the IRS.

Jim E. asked about future apple crosses. Ed mentioned Goldrush x SunCrisp

Goldrush will pass on flesh and precocity

Jules mentioned:

Goldrush x Fuji

Goldrush x Honeycrisp

Mitch reports SunCrisp blooms late, scab resistant.

Jules stated fruitable trees need to be sprayed for summer fruit rots so fruit can be observed.

Jim E. noted need of money for Dianne Miller and Anna Whipkey. Ray motioned Anna Whipkey \$200 more for services to MAIA. Greg Bachman 2<sup>nd</sup>.

Ed noted Dianne Miller needs \$10,000/year to continue with MAIA. Demand comes from OSU Dept. of Hort.

Ed noted MAIA should solicit money from fruit nurseries.

Jules noted: Ed Fackler \$2,500 from Garden's Alive  
\$2,500 from OFGS

giving \$5,000 offer to Stephen Myers of OSU for Dianne Miller's work for MAIA—contingent on Diane Miller's approval.

Jim E. asked about 2005 meeting location?

Decision pending.

Meeting adjourned.