

NE-183 Technical Committee Meeting
Nov 8 & 9, 2002
Landmark Resort, Egg Harbor, WI

Those in attendance:

Al-Hinai, Yahya	Mcnew, Ron
Belding, Bob	Merwin, Ian
Bewick, Tom* USDA/CSREES	Miller, Diane
Brown, Michael	Miller, Steve
Clements, Jon	Moran, Renae
Cowgill, Win	Rom, Curt R.
Crassweller, Rob	Roper, Teryl
Embree, Charlie	Rosenberger, David
Garcia, Elena	Runkel, Joan
Greene, Duane	Schwallier, Phil
Greene, George M	Seeley, Schuyler
Hirst, Peter	Seem, Bob * Administrative Advisor
Kosola, Kevin	Smith, Victoria Lynn
Lindstrom, Thor	Yoder, Keith

Elena Garcia, presiding, called meeting to order at 8:02

Thanks to Teryl for his organization

Teryl gave a presentation of **Wisconsin agriculture** his state of the state address. WI has 6500a Apples and ranks number 1 in the US for cheese, cranberries, sour kraut, and mink hides.

Motion to approve the agenda was made by Rene Moran, seconded by Duane Greene.

Bob Seem addressed the group. The NE Region is moving work into paperless system. Our project has a termination date of Sept 2004. A project revision would be needed in advance of that date. Questioned the project life, what do we envision for the future.

Tom Bewick of CSREES: Washington Update, there is no budget yet, election is just past, it may not get done till February or March. Blocks are expected. Homeland Security is taking time and money in congress. Agriculture appropriation bills are very different between house and senate, so hopefully it will be addressed early. Hatch and Smith Lever increased 4%. First increase in a long time. Reorganization of administrators. All new administrators and new collection of competitive programs.

Interesting issues regarding agriculture in populated areas, agro-tourism and locally produced foods are taking off. Could be good news for fruit industry east of Mississippi. Congress considers 'urban agriculture' the subject but wants new name. (Consumer agriculture) Tom is the National Program leader for agriculture. This group needs to look for funding Multi-multis, meaning multi-state, multi-discipline is what feds are looking to fund. Integrated agriculture. New position in DC available, GS 13-14 for

Administration of Horticulture. Salary caps out at \$113k. CSREES is good to achieve a difference in agriculture. Career building www.ree.usda.gov

Major goal of is to push horticulture. Keep farmers on the farm. (hidden within the mission statement) by supporting horticulture research.

Approval of minutes (8:45)

Steve Miller noted a version of the minutes that incorrectly identified an incorrect range of starch iodine (SI). Rene indicated it has been corrected in the current version. Rene Moran made the motion to accept, Bob Belding seconded, passed.

1995 Planting

Rob Crassweller **Tree growth and Yield paper** coordination, bloom date, dafb, height/spread ratio, yield, yield efficiency, and average fruit wt, Ron divided plantings into 4 regions based on tree growth.

Discussion on climate and modeling, Ian and Schuyler, who indicated they are willing to work on committee.

Some not comfortable with groupings

Groups by TCSA, and means analyzed within groups.

WVA and Pa are only 30 miles away and are not grouped together, Climate could be an analytical factor.

Look for causes rather than separate.

Multiple causes could be responsible

Need multivariate analysis, nitrogen, days below temp before harvest,

Maine has poor soil that is condition needed for analysis, textural soil index.

Diane Miller is doing paper with Dave Ferree regarding how the fruit perform in Ohio compared to other sites. This can be done within any state.

Leave interpretation up to states. Variation within means is tremendous, greater than mean variation.

Are there some factors that remain stable across sites.

Stability analysis can be run to determine variance.

Since this has been a very labor intensive project, we need to get the most out of it as possible.

Need to identify ~six sites that have comparable data recorded.

Check to see if data (weather, bloom, harvest date) has been sent to Ian.

Should take data as it is, by cultivar and analyze and use climate analysis in another paper.

Should sites be treated as fixed or random? Then mean separation within sites. Sites were treated as random and significance required greater mean separation.

Are there significant interactions?

Of course, with this volume of numbers, the f value is very small, will do that.

Stability is as important as the standard analysis

With stability analysis, site needs to be random. We can use stability analysis within first paper.

Weather should be included in second paper.

Jim Woods, of Woods orchards has joined us.

Flowering and Biennial Duane Greene

All of data present from Rob, Dave and Ian. Looking for biennial bearing index. Importance of bloom, spur vs. lateral. Discussion centers around quality of flower quality and fruit response. Needs 4 years of data for Biennial bearing analysis.

Disease Susceptibility Keith Yoder

4 reports submitted to B&C tests and looking for composite of reports for Plant Disease Looking for accumulated analysis. Second paper will be on summer diseases, SB and FS from 3 states, along with general rot data.

Rob Are citations available for disease work published?

ACTION: Will make web site folder for papers (self editing).

Steve Miller has published two papers on 1995 cultivars- Lab inoculated. Plant disease

Nutrition Teryl Roper

Data from Ian and Rob assembled first draft of paper and sent out. Still waiting for return. For normal protocol, are we reporting on foliar analysis? Can we use nitrogen for multivariate analysis? Calcium varies by cultivar.

ACTION: All Leaf Analysis to be sent to Teryl Roper.

Weather Summary I. Merwin.

We don't have good prediction for maturity of varieties. GDH does not work. Optimal harvest date by GDH and how good GDH works. More in depth paper will follow.

We can go back and generate historic weather data for site-specific weather data from company in PA. 1997-2000.

Daily Max min, bloom date and harvest date ...leaf nitrogen would be good.

Introduction on project background Duane Greene

Put together rough draft on program. Introductory paper on project to be published with others in a single volume. Proposals we have had and justifications. Apple orchard importance. DG handed out draft of paper.

ALL PAPERS WILL BE PUBLISHED IN ONE VOLUME

ACTION: Return comments on distributed paper to Duane Greene NOW!

Meeting Comments 2003 Nova Scotia Charlie Embree Old Orchard Inn Same block of time. Friday November 7 and Saturday November 8th. Halifax is an international airport. Meetings will be held at the experiment station where the industry is concentrated. Other B&Bs available if the Old Orchard Inn is not desirable. No expectations that Experiment Station funds used for international travel will be a problem. Current weather in Nova Scotia, a foot of snow and -8C.

Tree Death Elena Garcia

Other causes of death including winter hardiness. Many people responded to Elena's inquiry. Controlled freeze study using one yr old wood.

Fruit Quality and Sensory evaluation Steve Miller

Publication, same position as Rob's paper. Data has not been submitted in a timely manner, some three months after deadline. Same analysis problem here as with the growth data, tremendous amount of data makes blocking a problem.. We appreciate Ron is here to assist with questions. Significant location interaction, so each location/cultivar must be analyzed individually.

Data has been submitted for 14 sites for fruit quality, 8 sites for sensory data. Copies of draft distributed. Will run means and stability and write. Then second paper for region/climate differences.

Table of all fruit data, BC is largest, PA smallest. Fortune, Honeycrisp and Shizuka largest across all sites. Blank cells for sites are deleted data that didn't fall into acceptable range of SI. More data is included than was copied in draft. Steve will make this a priority. This data will be made into two papers to manage the volume of data.

Suggestion that we have a summary article, and this be for a popular press article. Technical interpretive paper beyond popular press (Suggested as a HortScience feature paper) could be written by committee composed of lead subject paper authors. Ian will lead. Advance publication of individual discipline papers, then complete interpretive.

Pest Problems Do we have any entomologist? Only done by Dick Straub in the Hudson Valley. Henry Hogmire also has some data on the cultivars. Curt Rom has block that was half sprayed and half unsprayed and collected lept. data, but results indicate that we may need to target scale and aphid data. How many sites are there for insect work?

ACTION: A one-page paper in the issue of JAPS describing entomological works published in other journals. The one page would reference that as a stand-alone piece of work. Peter will contact the insect group for paper/page for publishing. Disease guys will do the same; they are present (Dave and Keith)

Rootstocks Cheryl Hampton Not present. Handed out a paper with her approach and was given the nod by the group. The topic could be peripheral to the project. Does the rootstock alter the results that we have obtained? This paper would easily answer that question.

INSERTED PAPER/ AGENDA ITEM **Popular press article** Win and Jim Schupp. This will be constructed as data is available. Win and Jim will prompt leaders of the individual subject articles for data. Individual states already have

Steve Question to the group: Are there any cultivars in the 1995 planting that needs to be planted?

Suncrisp Sansa Creston (heat stresses) can be good by region WVA, NJ not good , Ohio is good. Goldrush does well also. Minimal cracking, WVA had major cracking Mid Sept. (50%). More moisture related than juvenility. Gala really cracked this year east coast.

Include in popular article, survey of what works in each area. Easily to include a collection of state comments (paragraph). Hudson valley has underestimated the niche market. One year a few Orientals harvest Fuji, next year, bus loads show up.

Growth & Flowering one (each) paper with stability analysis
Pests- Tree loss data to be included in disease papers
For publication, diseases will be divided by type of disease (SBFS, summer diseases)
Summary in popular article should include disease information

Weather Summary- Two papers lead by Ian Merwin, by region and two larger summary paper focusing on few varieties
Fruit Quality Summary by cultivar and stability analysis Two papers (sensory)
Dick Straub for insect summary for popular
Rootstock paper looks good from Cheryl
John Barden is editor for JAPS October issue is last Dave Ferree issue

1999 Planting

Horticulture subcommittee Bob Belding

Protocol has been carefully established for an entire 6 year planting cycle under the careful scrutiny of GMG. BB questioned the continued practice of sorting trees by size for planting within blocks. Ron indicated that either answer could easily be argued, but said that block is used in analysis, so the practice makes sense. One correction to the cultivar list, Pink Lady is not the cultivar name; it is actually 'Cripps Pink'. Pink Lady is a packing standard =size X color class.

Pest management subcommittee Yoder has a 1999 planting. Keith continuing to accumulate data from 4-5 states. Nothing published yet? If data is published does it conflict with patent issue. If data is published before patent data.

1. Specific numbers in this group. 2. Susan thought that no varieties included were in danger of being patented- (just great). John Clark only sends out numbered cultivar. "Material is not an item of commerce (not for sale)". University must respond with patent issue. Numbered cultivar, not named, once named it must be patented within one year.

NJ lawyers required no patenting within 10 generations. Evaluation of germplasm is intellectual property and could be a claim (threat) on a patent.

If we declare that we are not doing anything innovative, it is ok with some lawyers.

No new varieties are forthcoming from NZ. Should we consider working with transgenic materials?

Major issue Plant Patent and Published Data- regarding patent issue if any data regarding that information published on that cultivar. Agreed to post question about restricting data to list serve. Pathologists decided that if questions arise, no one will get information regarding susceptibility. When we received selections, there was request for non propagation agreements from breeders. None were requested/required by the breeders. New laws have been issued since inception. Contact breeders for information on issue.

Motion Rob: Incoming chair write letter to individual breeders of 1999 planting and we plan on publishing data unless they have objections. Seconded by Peter Hirst. With a March 1 deadline to respond. Motion unanimously approved.

Lunch. 12:15 Break for an hour and reconvene. We will meet for an hour in the afternoon then go to the experiment station, taste varieties, and a 40-acre Honeycrisp.

Peter Hirst announced USDA Metals accompanied the plaques from the Sect. Ag award, Take them for all plaque recipients.

Antioxidant committee convened prior to dinner.

Economic subcommittee B. Lord Not present

Jon will add Bill Lord to email list.

Peter: Need data protocol to fulfill this, our third objective. Objective needs to stay, but document the lack of feasibility of objective. May indicate that no work done.

Fruit Quality subcommittee Steve Miller

Sunburn and watercore added last year on optional sensory evaluation. Ian and Elena both have non-traditional watercore on sun-exposed side of fruit. Use same 1-5 rating. Thor indicates that sunburn type damage affects firmness evaluation. Duane does firmness evaluation on blush margins, not sun side.

Photography Curt Rom

Jon was asked by Curt to make master database to layout collection to see each variety by cultivar, or state. Jon thinks a database format will work best.

ACTION: Each project will have three photos from each cultivar of the 1999 planting for next year. (Real world shots vs. not nursery shots). Guidelines offered by Jon and Steve for photo setting and resolution. 1) Tree with fruit at harvest, 2) group of fruit on limb and 3) close up shots of group of fruit on standard blue box tray showing basin, calyx and/or defining feature (russet, cork).

Data Management subcommittee Ron McNew

Handout of inventory of 1999 planting. 2001 only received 8 sets of 2001 data (16 sets received for 2000). Tables of inventory indicate how many sets of each variable have been submitted. Duane explained what plantings received what trees when trees were limiting. Only pest management plantings received complete sets of trees. Silken had a

mix up and Autumn Gold and Delblush. Data from disease plantings should not be included in growth and yield analysis.

Publishing Rob Crassweller No further report.

Reconvene 9 November 2002 8:00

Announcements: dinner, look at apples at the Experiment Station, potato, birch var. tour
Tomorrow Brat n burger dinner at the station 5:30

Discussion on future of program. Can we carry on in the current state of plant patents? We should continue and do we have a program if new varieties are not available. We can get a project extension to complete the current planting.

One objective has been to make recommendations and we should focus on those. Europe has a program to look at characteristics of disease resistance on old varieties we could also. We could look at GMO's with disease resistance. We could look at older materials, heritage, russet varieties. Ohio has older varieties kicking around that have unique traits that could be explored. Resistance could be explored. Heirloom/heritage cultivars have interest. Hard winters have reduced some of the older cultivars. The cultivars are available. Increased practice of niche or locally grown fruit. Management and culture of older cultivars in today's climate. National IFP addressing cultivars was discussed, include more heritage and disease resistant cultivars.

We aren't required to have coordinated programs, or multiple participants. Coordinated test of organic program was discussed. Not convinced it is possible east of Rockies. How effective is organic tools, like Surround. We should have economic program for the tools of organic production. Should the Organic program have regional standards. Elena has been working on economics of organics and Surround.

What is the 'Needs base'? What do the nurseries, breeders/importers/growers need?

Consider the national impact, does heirloom varieties fit that.

In the rewrite, we should redefine data taken and what is done with it.

If we consider discontinuing project, be in contact with your Directors since salaries can have some basis in regional project funding.

Considering world oversupply, export from US will be increasingly difficult. Industry will continue struggling (and declining) longer now that 2002 is a short supply year (with higher prices). Nurseries are telling us that they want control over varieties until they can tell growers about them. We need to poll our resources to determine our strengths. Look to see what established varieties have best potential to proceed.

We need to look to see what we can do for industry to help them survive in the current market. With any new cultivars, there will be the over production and price drop. We need to look at a program that can be better at marketing.

Three levels of Niche varieties produced. Direct, wholesale and processing.

Cider and disease resistance cultivars.
PA has successful processing growers. 10-12 m bu / yr

We want to continue project.

We need to rewrite in any respect, and redirecting focus is easily done at rewrite. We can expand objectives, but don't go over broad in objectives.

Targeting medium to small growers is viable fundable target. We can have objective groups that can go for regions funding (SARE). Advocate core projects within rewrite to assist basic funding. Niche market focus, cultivars for commercial growers and include processing apples and disease resistance, some feel the need for organic focus. Other crops that direct marketers will grow. Organic farming can get more grant funding.

Sequence of events, regardless of what we do, we will want to write for an extension. We could be establishing a new project while we complete the NE-183 project.

We need to keep a tight focus or we lose the benefits of the program. Data needs to be cohesive among the subsets.

Subgroup could focus on processing or heirloom selections. We could buy into specific plantings.

Strong projects have 3 or more FTE. Many people only commit 0.1 FTE.

Subset of possible objectives Comparing cultivars of antiques, disease resistant, and processing apples.

Cider and hard cider studies can be overlaid on other studies.

Studies of hard cider may be more associated with wineries who may have others (contract) grow apples for them. Comparison of apple samples from different regions for phenolics, antioxidants, tannins and other.

Set timeline for writing accomplishments. Identify specific individuals for each of the three programs. Include pathologists to participate in each subset. Get selections all together and plant in a single year for pest evaluations.

Time line submit extension Sept 1 2003 is only a one page form.

If new project/ or revision will start, also submit Sept 1 2003, or Sept 1 2004 for rewrite if we continue NE-183. Current project ending 2004. Best time would be Early July for rewrite. Have final document in May for external review and revisions for July submission to Station Directors.

ACTION: Form three subcommittees. Chair and committee for each group, including plant pathologist. Rob processing, Elena and Diane for disease resistance. Ian and Duane for Antiques.

Can we assemble ideal hybrids from ideal parents to evaluate seedlings. Each person evaluates ~100 seedlings. Perhaps limited to 2-3 selections of parents. Plant and have master gardeners manage plantings. This system works for the Midwest apple improvements collect good looking seedlings. We take a public approach to breeding. Without plant patent worries.

Do we want extension or just go for rewrite?

Consensus Go for extension and rewrite later. Solicit additional participants (not just land grant schools). Bob Seems and Rene will handle rewrite form submission.

Future meetings Meeting SC has decided not to host in 2004. What are we going to do? Offer from Kentucky to have meeting and keep Greg as host. It was noted that the host does not need to be current chair.

Motion: Peter Hirst: NE183 should follow NC-140. Rene second. Discussion, meet another time? One opposed –motion carried.

Selection of new officer (Secretary 2003)- Steve miller declined. Diane Miller was elected. Unanimous

Web Site Update 9000 visits 57 countries, cultivars and minutes of 2001. How much information from statistics into annual report? Good information on impact/outreach. Improved navigation this year. Wants to archive list serve. Do we want a separate list serve for rewrite participants? Member database click on name to update.

**Members check link page to confirm existing links.
Post Minutes to listserve for confirmation then post.**

**Publication page, all pubs listed, make comprehensive.
Needs electronic version of annual reports, check to see if your reports are up.**

Members only upload area. Files from States. Add extensions (.doc, .pdf)
Adobe acrobat \$50 it is a good investment.
Naming files: NJ2002staterreport183.doc
Access to files- state reports are not public accessible. Dave said there are copyright issues for data. APS allows copies of papers on web.
New York fruit Quarterly is available on the web. Hard Cider by Ian Merwin 1999.
ADD Last Update button. PSU has update button.
Funding for web stuff included in registration have listed web support.
Can we have state PI charge vs. lower charge for additional state members? (PI vs. Peon)
Surcharge for 2002 is \$50 for NE-183, same for NC-140.

\$650 for site hosting, plus database, labor and maintenance \$1350.
To be covered by 2002 meeting, 25 registered dedicating \$1250 for web support.

Presentation by Dave Rosenberger Hawthorn rust lesson, Cedar apple rust.
Motion To send a letter to director /dept head commending-Rob. Second Win

Motion to Adjourn 12:05

Lunch Break

Display of cultivars at the Peninsular station

Prepared by Bob Belding Belding@cook.rutgers.edu