

## **PA-TACF Science Committee Meeting Report of May 26, 2009 at Hanover, PA**

**Participants:** Dave Armstrong, Chairman; Dr Bob Leffel, Chapter Scientist; Ann Leffel, Member; Sara Fitzsimmons, Member; Tom Pugel, Member; Alan Tumblin, Member. **PA-TACF Board members participating:** Alex Day, President and Chandis Klinger, Past President.

**Agenda:** Outline attached as enclosure 1.

Items Discussed:

### **CMS Program**

**Lancaster County Conservancy (LCC) CMS orchard.** This is a CMS Consolidated orchard that was completed in April 2009 with 1500 nuts planted. No American nuts were planted in the orchard which will allow:

- 1.) Intercrossing of the F1 trees to produce F2's and,
- 2.) Later introduction of American pollen in the orchard by broadcast means to produce BC2's.

**CMS Modification Plan.** Dr. Leffel's plan to intercross CMS in an F123 program as well as a program to produce six generation backcross from the LCC orchard is attached as an outline at enclosure 2. The changes and additions highlighted in the enclosure were made by the committee.

**June Trip to visit CMS orchards:** It was agreed that a trip to visit the older CMS orchards of Gratland, Boyd, Windcliff, Kane and Warren would be done in June while the tree flowers are blooming. This will be scheduled in two trips (south & north) with possible side trips to other orchards along the routes. The participants will be Dr. & Ann Leffel, Sara Fitzsimmons, Tim Eck & Dave Armstrong. Board members and other interested members will be invited via the list server.

**CMS Orchard Information Needed from Growers:** It was determined that the annual maintenance checklist information would be issued along with the CMS Program checklist and both would be requested from growers at the end of each year. These two checklist reports are needed for our data records at the Leffel Center.

**Pollen Broadcast Spreader.** Alex volunteered to contact the US Forest Service and research their equipment and methodology for pollen dispersal.

### **American Program:**

**Status of Letters to American tree Locator form Submitters:** These letters are scheduled to be sent from the Leffel Center to request American seed from this year's harvest. American nuts will be collected at the Center and redistributed to orchard growers in the seed zones of origin.

**Large Surviving American (LSA) Tree Program.** The Committee discussed the magnitude and process of identifying LSA trees that are 10"+ DBH and evaluating them for survival, accessibility, nut production, blight resistance, and volunteer availability. We may use several methods of testing for resistance of the LSA Candidate with a susceptible American check tree including;

- On-site branch inoculation
- Removing scion wood and grafting onto an available local tree
- Harvesting OP nuts for planting and inoculating.

The committee agreed that we should not make the LSA program a major part of the PA-TACF tree breeding program but work with the LSA trees as they become available. We will recommend to the PA-TACF board that we will coordinate and participate with the ACCF in growing their progeny trees.

## **B3F2 Program:**

**Graves B3F2 Orchard Locations.** An orchard location for the Graves will be needed in 2-3 years but no candidates were favored by the Committee. It was agreed that a large centralized B3F2 location is favored over several smaller orchards. This will continue to be reviewed by the Committee.

## **Other Areas of Discussion:**

1. The potential closing of Penn Nursery by PA Senate budget cutting bill. The loss of low cost distribution of seedlings throughout PA including future chestnut trees is a concern of the Committee. We recommend that we use the PA grower's list serve network and newsletter to alert our members to the problem and recommend contact with their Senators and Representatives.
2. DCNR / TACF Memorandum of Understanding. A "Statement of Cooperative Intent" has been prepared by DCNR and Tracey Coulter has forwarded it to TACF.
3. DCNR Timber Sale Data of the Forest Districts. Information from Tracey indicated that DCNR is developing data on timber sales throughout 15 Forest Districts.

David J. Armstrong  
PA-TACF Science Committee

## **Enclosure 1 Agenda**

### **PA-TACF Science Committee meeting 04/26/2009**

#### **CMS Program.**

- LCC Planting Status - Tim Eck
- CMS Modification Plan - BC1F2 and BC1F3 - Bob & Ann
- Trip in June to Evaluate CMS Orchards - Bob & Ann
- CMS Orchard Data requirements needed from growers - Sara
- Publication of CMS Procedures & Checklist - Dave
- Update of Broadcast Spreader (Fogger) development - Sara or Tim

#### **American Program.**

- Status of letters to American tree ID sumitters - Sara
- Evaluation of LSA for AxA crossing - Dave
- Presentation of ACCF material received from Dr. Griffith - Dave
- Proposed use of ACCF and Meadowview LSA pollen - Dave
- Use of current American orchards for AxA crosses - Dave & Sara

#### **TACF & PA-TACF Backcross Program.**

- Status of B3F3 small stem inoculations - Sara
- Plans and participation in the Mont Alto (Waynsboro) Test site -Sara
- Discussion of a location for Graves B3F2 orchard(s). - Committee

#### **Misc**

- Status of DCNR/TACF MOU
- Bureau of Forestry timber sale data

## Enclosure 2 CMS Plan Modification

### CMS PLAN MODIFICATION

- ❖ Lancaster County Conservancy (LCC) Planting
  - No Americans / 1500 trees / B1F1 AxC
- ❖ 3<sup>rd</sup> Year mild inoculation or natural blight – remove susceptible trees
- ❖ 5 to 6 Year
  - Evaluate for MS or MF
  - Evaluate growth form and resistance of MS & MF
  - Inoculate and select out susceptible and poor form trees
- ❖ Out-year Harvesting
  - Allow natural crossing of MS & MF trees
  - Harvest F2's by mother tree – **Keep nuts separated nuts by mother tree**
  - Plant F2's elsewhere – Regional locations

#### Regional F2 Orchards

- ❖ Plant with Americans and continue CMS program
- ❖ Evaluate progeny for resistance and comparing to F1 and TACF Program

#### LCC F1 Orchard Continued

- ❖ Remove MF trees
- ❖ Collect American pollen from around PA/NJ
- ❖ Bulk dry pollen and distribute with broadcast spreader
- ❖ Produce F2 and plant in isolated orchard
- ❖ Remove MF trees and test
- ❖ Produce F3 and plant in isolated orchard