

MA/RI-TACF Summer 2022 Quarterly Meeting Minutes

Location: Water Farm, Sutton, MA - Hybrid w/Zoom

Present in person: Kathy Desjardin, Brian Clark, Jamie Donalds, Mike Novack, John Emery, Mark Meehl, Bill Goodwin, Karen Jones, Grey Curtis, Rufin Van Bossuyt, Bill Davis, Kendra Collins, Jared, Isaiah Powers, Vassily, Nate Lord, Eric,

Present Online: Josh Soojian, Gary Jacob, Ed Croteau, David, Nick, Michael Grames, Rich Hoffman, John Meiklejohn, Bruce Piper, Stewart Clements (Boy Scout camp person - his scouts can chart, tag, monitor - Troop 3), Nick Muise

9:35 am

Treasurer's Report: Kathy Desjardin for Paul Wetzel

Financial situation strong. Kathy went over,

Mileage - lower this year because multiple interns don't have to travel as much

Mark submitting gas due to cost of transportation of mower.

Paul thru Kathy proposes that we pay the gas total this time but in future we cover mileage, not gas total, and Mark keep track of mileage.

Don't need motion to cover the gas.

MOTION: The Chapter will reimburse mileage at \$.25/mile for chapter-related travel to whoever submits for reimbursement, to be reviewed at the 2022 fall meeting.

Passed unanimously

MOTION to accept treasurer's report

Passed unanimously

Scientific Planning Report: Michael Novack

Selecting at F2 not good enough. We want to select from our best and cross. Need "effective" blight tolerance.

Other approach - use sterile F1s. B3F2s not as good as F1s. on average.

What is a "good tree"?

Jared: each partly resistant tree looks a little different. Is there sporulation? Best: canopy alive, no sporulation, no basal sprouts,

Looks at % Chinese vs American

Jared will look at our trees ratings when he gets back. We might have 3 or so "best" trees

We can use genomics to select within those. Avoiding EP will be good.

Inoculation hits right in cambium, we might want to avoid inoculation in the future. Trees might keep natural infection more superficial. Trees not inoculated next to trees inoculated - all have blight, inoculated ones look worse.

Large surviving American: tree living with blight for decades. Superficial cankers, main stem alive.

Jared - thinks they are a little worse than F1.18" dbh tree - MA champion - does have blight. Brian and Michael have been following for 25 years.

Jared – USDA – wants to see how BC diversity compares to wild diversity

What do LSA genes near blight infection do differently than susceptible ones?

20 yr old kids of LSA

No silver bullet though.

We have a couple of cruddy bark trees in our breeding program. Gloucester, RI Ponaganset School.

Jared would like each state to cross each 3 best trees. Compare SSAs of those progeny to Darling trees to LSA trees.

Might want to do field trials of best material.

Too late for this year.

MOTION to accept SP Report passed unanimously.

Secretary's Report: Yvonne Federowicz

What activities have people engaged in this quarter?

Pass spreadsheet – get dates at least!

Membership Report - June

New 1

Renewed 18

Current **263**

TOTAL MEMBERS FOR JUNE: 282

MOTION to accept Secretary Report: passed unanimously

Orchard Report: Brian Clark

Nothing formally prepared

Started new orchard at Sandersfield

Netting for deer fence still backordered

Planted about 550 trees, lovely locaion in Berkshires with view! Can see mountains in NY. Great volunteers. 1800 feet elevatioin. About half orchard planted.

Used some lines that were more promising.

Granville - some planting.

Westerly inoculated

SKLT breeding rated & seed 5 plots ratings

Roguing started

Hawley - 6 plots of Nanking need rated

Granville need rated

Jared: many seeds from inferior trees –keep best parents - some plots not very promising based upon blight

Inoculations and ratings not listed but some done.

How should we do the conservation in the future? Thin down seed orchards

We have a lot of replication

Lots of trees look bad in many different ways

Good trees look like trees

Rogued trees can be used for many things – inoculated part must be burned.

Other parts can be used by local farmers etc

Jared - we might divide our best trees into groups with different uses

1st tier

2nd tier

We are mostly moving to controlled pollinations so we don't have to get rid of all of them - things like F1s and maybe Chinese may tolerate certain sites that Americans don't, such sites with higher pH than normal eastern U.S. soils where chestnuts were native.

Did not do controlled pollinations, Brian too busy.

GCO Manager Report: Mark Meehl

Lincoln MA - last year planted 110 trees

Some bare root, some other

All losses were replaced

Great volunteers!

Still room for future expansion

Layout follows Kendra's "Planting a GCO"

Good community support for signage

People are thrilled to see the landscape being used again

John E. asked how Lincoln town responded re. GMO possibility

Mark responded that Town liked the approach of we'll cross that bridge when we come to it.

Some anti-GMO sentiment there.

In mean time, takes time to grow trees.

Introduction of our Host at Waters Farm, Norma. She has been a member of our chapter since 2017.

She has planted 4 trees but one was mowed! They are taller than her now.

Waters Farm is from 1700s - original house floors are chestnut

There is chestnut right over the stone wall – resprouting

In history from 1950s – chestnut tree was estimated at 300 years, 32 ft circumference

There was a cold water spring. Tree is no longer here. 120 acres of land left.

Farm had 1000 apple trees, They were shipped to Europe in times past.

Norma made 7K on the apple crisp!!!

Intern Report: Bill Davis

Isaiah worked in Burrillville, might work in Sandersfield, one mmore

Eric Harrison - Westboro

Nate Lord from Natick - Westboro, Lincoln, also doing work w/national

Ross Clay – mostly working with Mark

Blue Hills Plantings at the Eustis Estate Museum, Milton Mother Tree & Camp Sayre “School in the Woods” Update: Gray Curtis

Presentation and distributed his proposal

Gray wants to plant a variety of chestnuts, with storyboard setup for children

Children can look down at storyboard and look up at trees

Museum agreed to let Boy Scouts work on aspects

Camp Sayer - BSA - “school in the woods”

Local scoutmaster - manager of property at Camp Sayer – is very interested

Gray considering using seeds from a large surviving tree onsite to plant chestnuts near the signage

“Charlie Chestnut” was created for children and is a set of resources still online at National. –Yvonne

Gray and Jon Clements need contact info for each other

Jon wants to cut back growth around the large chestnuts they have, get DCR approval for that. –He

will be in touch with Gray. He met Gray at Sayer a while back.

Strategic Plan Update: Brad Smith will present updates at the fall quarterly meeting

BREAK - 11:30 AM - Noon

Intern Update: Bill Davis

Discussion on mileage reimbursement: Kathy Desjardin

National Updates: Kendra Collins, Jared Westbrook, Vasiliy Lakoba

Jared

Thanking everyone for coming out to orchards, including Nate!

He will redo the ancestry for our trees - the phenotyped ones...

Blight1

Blight2

BCO - backcross conservation orchard

BCO trees are already flowering

They have stacked resistance trials going on to see how that works. Will do SSAs.

Replicating at multiple sites

Sequencing genomes of 300+ wild trees to see genetic variation

Also backcross trees

In southwest part of range, going to try to get pollen from trees that have been suppressed in the understory

Vassily:

Diversifying transgenic trees too

Grafting from difficult parts of range

Looking at tree form

Using drones to get images - drones from VA Tech! Invited everyone to come by Meadowview

Kendra – planned all the visit in MA & ME –

Ratings in SKLT breeding most of what survived in Nanking is F1 and Chinese

Fall regional meeting - no date scheduled yet

Regional work - best by best crosses

Brian - what is Jared evaluating trees on

Is blight contained within margins

If contained - Superficial canker? - are cankers discrete in little areas? - not going deep in tree

Sunken or swollen or flat(flat is best)

Canker larger than hand

If fungus reproduces - bad

Percent canopy alive

Main stem alive

Exposed wood

Height, diameter

Stem dominance

Using drones will help once some of our trees are large enough (hopefully!)

Brian: some lines have pretty poor growing rates compared to Americans - more like Chinese

Vassilly - at what threshold of % Chinese does tree have more of a Chinese habit

They are looking at that in a VA state forest

Jamie – how many genes are there?

Jared – tens of genes they have located explain 20% of the variation. That means potentially hundreds of genes, not all are as crucial

We cannot “fix” resistance and get it homozygous. We can select the best trees and breed by best

National can do the SSA part!

Kendra, Brian Clark, and Eric Evans to work on best trees crossings

There is subjectivity to this, and one tree might have all types

Early ratings in our chapter were done more stringently than he does now, he has looked at

F1s x “better backcrosses”

Yvonne - does provenance of F1s matter? mother/father

Jared - doesn't think that matters

Nominating committee – John Meiklejohn and Jamie – please reach out to them with nominations

Fall meeting -October 15th - Macleish

Annual Meeting:

Venue - same place Westboro Sr Ctr

Date - Saturday Dec. 3rd if ok, 4th otherwise

Speaker - Possibilities: Jim Pelletier, another person – people will contact

President's Notes: Kathy Desjardin

National Mtg - Asheville - Program is up on website

Talks

Genomics in landscape

What is minimum number of trees to capture how much diversity

Beth Shapiro

Ben Novack - Revive and Restore

Have worked with many things

CRSPR

Collaboration with Eastern Band of Cherokees

Nick Muise attendee interested in helping with software development, Kendra suggested Dentatabase

Meeting closed - approx. 2:30pm