

# *American Chestnut Cooperators' Foundation*

2661 Forest Service Road 708, Newport, Virginia 24128

<https://accf-online.org> or <https://accf-chestnut.org>

January 2021

Dear Friends & Cooperating Growers:

Thanks again for your reports. So far, we have received reports from IN, WV, VA, HI, OH, TN, MD, KY, MI, VT, PA, NJ, ARK, GA, MA, NC, WI, NY, AL, MO, NH & Nova Scotia. The top three states for reporting are PA (9), VA (8) and (5). Support your state: this ranking is likely to change as more 2020 reports arrive.

Many thanks to Timothy Schacht, Darren Carr, Ryan Wierzbicki, Jim & Jane Reilly, Scott & Jenny Abla, and Lise Cooper for extensive help at harvest. More thanks to Ryan, Jenny and Lise who came twice. The 2020 chestnuts were mailed to 24 growers in VA, WV, TN, OH, NC, PA, GA, ARK, IN, MA, NE and NJ.

Growers attending harvest learn more information about chestnut care than I can put into a newsletter. Participation has a greater impact than a basic show and tell lesson: it reinforces and expands learning for our experienced growers as well as the beginners. The 2021 harvest dates will be announced in our June newsletter. We have a firm 5-week interval to submit the 2021 Harvest Request form. It will be included in the June newsletter. This form must be returned via regular mail, not email. We hope more growers may be able to attend.

I used to think the American chestnut would return first in the South, because of the longer growing season. However, the prevalence of *Phytophthora* throughout the Piedmont and continuously spreading to infect adjacent areas, along with a great variety of destructive insect pests, has produced in our South a different result. Among this year's reports, the largest number of bearing ACCF chestnuts grow in the North, including a few plantations in the far North. For seedlings planted more recently, climate change might introduce the southern pests and thus ruin the northern advantage. Vigilance will be required for success.

## **INSECT DAMAGE ALERT:**

Gall wasp, ambrosia beetle or gypsy moth damage might appear in your area this winter or spring, even if you live far North or West of any area where these pests have been reported. The tiny insects spread fastest and farthest when riding hurricane

winds. Thus, especially this spring, they are more likely to make surprise appearances where they have never been seen before, and return to places where they have been previously eradicated.

**Gall wasps** lay their eggs in chestnut buds. Each acquired leaf bud makes a small, deformed leaf and pretty soon a gall appears near the center. Galls are easily visible and soon turn pinkish. Instead of assisting tree growth, each infested leaf raises a generation of gall wasps and each catkin & flower bud produces more gall wasps instead of pollen and chestnuts. The pest reproduces twice per growing season. Each year it is not controlled, the infestation moves farther up the tree trunk, ruining all buds on each branch as it climbs.

We had many dead & dying lower branches pruned last winter, 5 or 6 years after discovering gall wasp in the Big Field, where our oldest chestnuts grow. I had been able to control the pest by removing ruined buds as they appeared until early in 2018, when I was incapacitated by Lyme disease.

A systemic chemical drench, containing Imidacloprid, can control the damage for a year, if weather permits the application when it may be most useful in early spring, but draught or heavy rains can ruin the chance for an effective treatment.

There is a natural predator of gall wasp, developed at University of Kentucky and successfully deployed in Italy. However, here in our country, complex regulations are a big obstacle, and it is not practical for growers in the South. Our southern forest environment was altered 100 years ago by widespread planting of Chinese chestnuts to replace American chestnuts in anticipation of the pandemic reaching south where rural populations depended on the nut crop. The gall wasp's predator will prefer Chinese to American chestnuts, and the southern US has many other common alternate hosts for gall wasps, such as wild grapes.

Discovering **ambrosia beetles** requires vigilance in early spring, when the beetle drills pinholes through thin bark on young chestnuts trees to lay eggs in the cambium. The pinholes are most visible on their first day, when the beetle ejects a string (up to 1/4" long) of shavings while drilling the hole, but rain can wash away this evidence. Using an indelible Sharpie marker, circle each pinhole and destroy the beetle eggs with a blast from a spray-can of insecticide containing permethrin. Return daily to plug all pinholes with Vaseline or soft wax and look for new pinholes. If you neglect to plug the holes, blight may enter and kill the young chestnuts before they are big enough to express blight resistance. The pest doesn't inhabit chestnut stems smaller than 1/2 inch in diameter at ground level; it prefers

drilling into thin bark, but can invade larger chestnut trunks via scars-left by a bear climbing to steal the chestnut crop.

The **gypsy moth** also attacks in early spring. The first sign is a creepy sound of leaves being munched. Next you notice tiny black dots on chestnut leaves. Squish them with your fingers, then spray the leaves with Sevin, daily to begin with. The dots grow from tiny caterpillars into larger ones with yellow stripes. Now you pick them off and stomp on them. Spray chestnut leaves again after each rain. The extermination process continues until the munching noise disappears because gypsy moth can reproduce on most deciduous trees in our Eastern forests, the outstanding exception being tulip poplar and related tree species. Gypsy moths emerge again in summer to consume a second crop of leaves on the trees not killed earlier. After one or 2 years these pests migrate in search of edible leaves.

The **7-year cicada**, an inch-long flying black fly with red eyes, arrives later in spring, announced by a strange humming sound. Sprays are useless. Record their presence in your field notes, and if you can't prune now then put a reminder on the calendar to prune the scars (about 1 inch long) on chestnut twigs & small branches, because blight may gain entry via the scars. Pruning will also decrease your trouble 7 years hence; for this reason, prune scarred branches & twigs within reach on other trees and shrubs near or within your plantation.

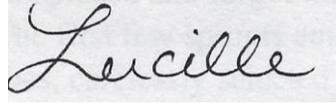
**Save face masks** that can be washed & recycled. They'll be necessary when using poison sprays. To protect against Lyme disease, every 2 months spray permethrin on all clothing you wear in the field and woods. Leave clothing drying outside overnight to wear the next day. Keep a mask in your work basket throughout the growing season in case you may need to spray insecticide if you should discover on your chestnuts the Ambrosia beetles' tiny pinholes with or without shavings.



Our dear colleague and ACCF co-founder, Dr. John Rush Elkins, passed away last September. A great teacher and master grafter, John trained and inspired us in the field and completed seminal groundwork to the restoration of the species. His contributions made possible the achievement of blight resistance 20 years earlier than predicted. John's legacy is in every American chestnut sent out to our cooperators, a continuum of advancing intercrossed genetics of original pandemic survivors. We are lucky to be able to take our part in restoration of the tree species most critical to expanding the carrying capacity of our eastern forests. All of us

together, fully engaged in pursuit of the calling, can return the American chestnut throughout its natural range.

Respectfully submitted,

A handwritten signature in cursive script that reads "Lucille". The signature is written in black ink on a light-colored, slightly textured background.

Lucille Griffin, Executive Director

Other ACCF Directors:

**Gary Griffin**, President, Plant Pathology, Virginia Tech

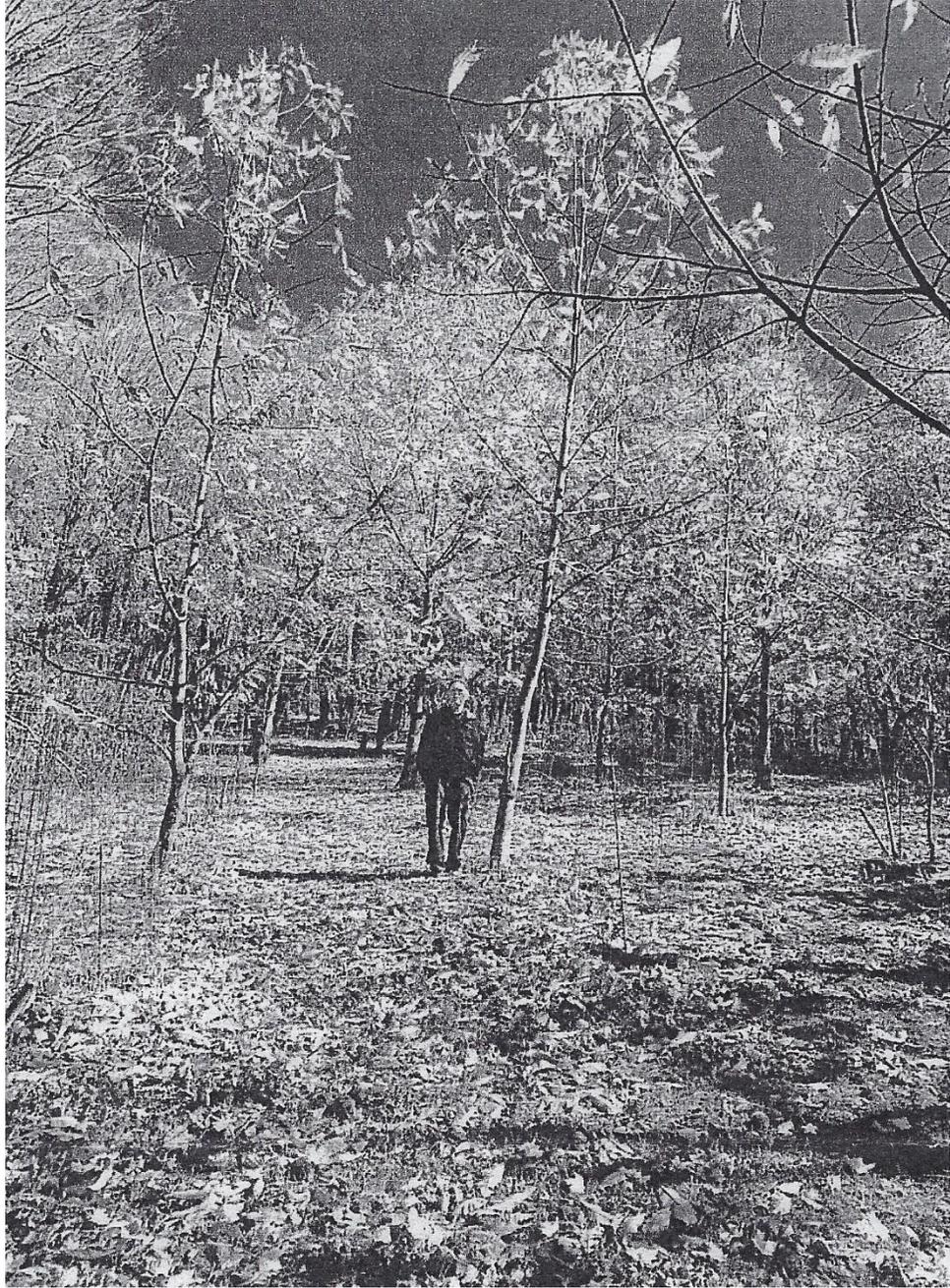
**Ed Greenwell**, Vice President & Director of Breeding, Electrical Engineer, New Johnsonville, TN

**Phillip N. Martin**, Treasurer, CPA, Christiansburg, VA

**John Rush Elkins**, Director, Professor Emeritus Chemistry, Concord College, WV

**Joyce G. Foster**, Director, Research Biochemist, Beaver, WV.

**Dave McCurdy**, Director & Nursery Superintendent Emeritus, Raleigh, NC



John Rush Elkins The Big Field, 2020

*Dedicated to the restoration of American chestnuts*