

American Chestnut Cooperators Foundation

2019 Newsletter

Forest Service Road 708, Newport, Virginia 24128

Report to: <https://accf-online.org>

Dear Friends & Cooperating Growers:

NEW ITEMS Please note your new Member # on the newsletter address label and forget the old one. The new database requires new member numbers. Please also note our new Website address <https://accf-online.org>. Grower reports system is back up, our former report form became extinct when VA Tech abandoned the old server in January. I am 85% recovered from Lyme disease, not yet able to do all my work because everything takes more time than it used to, and implore all growers to take care and spray field clothing regularly with a DEET or permethrin repellent.

Thanks to outstanding Cooperator, James Raitmaier, WI tree expert and regular harvest helper, who came for two days in April, to fortify chestnuts-in areas with recent gall wasp and ambrosia beetle damage. He applied Acephate drench to the Airport and Big Field breeding orchards, plus some 100 additional chestnuts in two forest research plots. Many thanks also to all the others who helped make the 2018 harvest possible; sorry, I can't print your names because my list is incomplete.

2019 HARVEST dates will be September 6, 13, 21, 25 & October 5. I choose dates to avoid home football games which monopolize accommodations, cause traffic jams and make access to the Airport difficult or impossible. This year's chestnut flowers predict an unusually early harvest. Your request to attend harvest must be in my hands by August 23; no exceptions can be made. Postal is best because email occasionally goes astray. Please don't tell your friends who are not ACCF members, but family of ACCF growers are always welcome to come. It is unlikely that any chestnuts may be found here after October 5.

BLIGHT RESISTANCE is still widely misunderstood: it does not mean that a chestnut cannot get the blight. Indeed, we cannot know for certain whether a chestnut is blight-resistant until it acquires blight. We judge blight resistance by the first canker(s) on chestnuts over 2.5 inches in diameter at breast height: sunken cankers usually kill chestnuts, swollen cankers control blight within the outer bark & flat

cankers may go either way, time tells. Confusion arises from the nursery term, "blight-free", which is required by law for mailing chestnut seedlings over state lines. It does not mean the chestnuts are blight resistant, only that there is no blight on them at the time of shipping.

IDEAL ENVIRONMENT: Chestnuts should not be under stress due to poor site selection. For their blight resistance to be effective, they must thrive where they stand. Flat land, poorly drained soil, and frost pockets must be avoided. Chestnuts prefer deep, acid soil found in coves and other locations on the upper half of slopes receiving sun from the North to East quadrant, at least a half day's exposure, including the early morning sun. On a SW slope at 3,500 ft, our Big Field orchard is in a better environment than the Airport at 2,000 ft. The Big Field's slope is steep, and tall trees to the west block late afternoon sun, preventing winter damage. The Airport is in full sun, on flat land, exposed to south and west winds. Several Airport chestnuts have been declining since the late freezes of 2013 and 2014. Gary has been studying them ever since. His chemical assays indicated severe stress, which was verified soon enough as formerly healthy grafts, the largest chestnuts in this orchard, showed breakdown of blight resistance. They have continued to deteriorate, and this year large parts of several have been killed: some from near ground level, others halfway up the trunk, where new sprouts are making a second start. (This year's Airport nut crop should not be seriously diminished by dieback because the orchard contains two grafts of nearly all selections that grow there.) Meanwhile their counterparts grafted in the Big Field continue to thrive; because cold air moves rapidly down the steep mountain slopes, stress on these chestnuts was minimal, and all have recovered. As usual, most of the Big Field's nut crop will be out of reach of pickers.

SOIL PACKS are only useful on blight-resistant chestnuts, to protect graft unions, or in early spring, to curtail winter breakdown on previously controlled blight cankers. Soil contains natural blight inhibitors, but must be moist to keep them active. Blight lodging in or below the union of a graft will kill it, so we always put the union underground by mounding soil above it, watering and pressing moss onto the soil to hold it in place. Leave a container of water ready for summer droughts. During the growing season, blight-resistant chestnuts can control new cankers by

containing them in their outer bark. However, during dormancy, a chestnut's blight-resistance also sleeps, while the blight fungus remains active. Thus, blight may break out from swollen, controlled cankers during long/harsh winters. Check cankers in early spring: chestnuts over 2.5 inches in diameter must be able to contain these breakouts during the growing season, otherwise their resistance is insufficient for the growing site. Smaller-diameter chestnuts may need a soil pack (described below) to assist blight control. In fall, with little time remaining for the chestnuts' inheritance to come into play, new discrete flat cankers may appear which might be controlled through winter dormancy by making a soil pack: cut a piece of light-colored opaque plastic large enough to make a pouch that could cover the canker and circle the trunk, with its bottom puckered & edges overlapping, edges duct-taped together, tape the bottom to the trunk, so that the top is about an inch wider than the trunk, leaving space to be filled with damp soil and cover with moss. Winter weather provides adequate moisture for these soil packs. During the next growing season, water soil packs once a week through drought. Carry on with our best wishes.

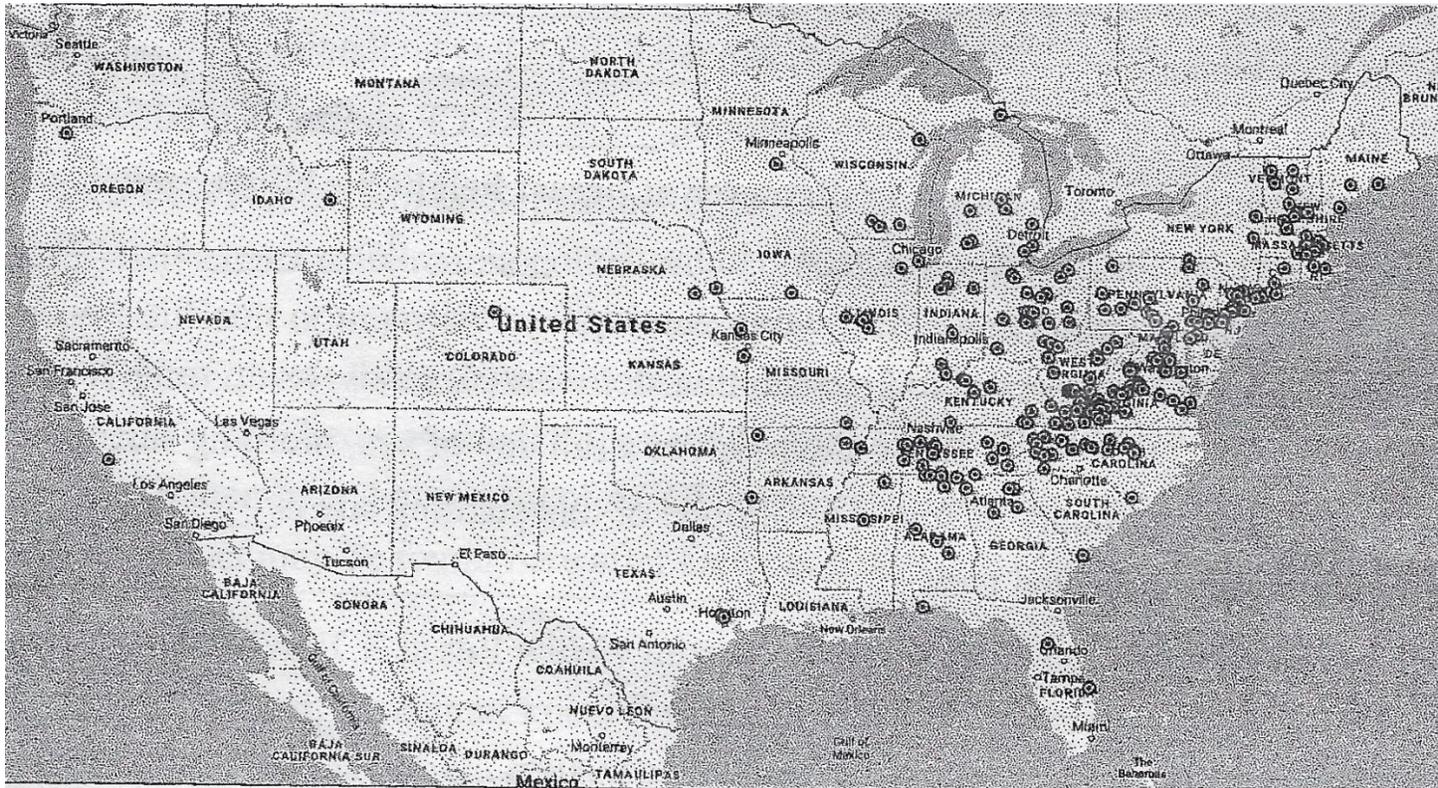
In a recent Wall Street Journal (Review C4, May 11-12) you may have read a chestnut piece promoting the idea of planting transgenic chestnuts. The USDA-FS is currently evaluating whether these chestnuts may be planted. There is no need to plant transgenic chestnuts in our forests when we already have blight-resistant, all-American chestnuts; dozens of them growing in our breeding orchards are over 50 feet tall and have been controlling blight for at least 10 years, and some of you have reported more; their forbears, grafts of original survivors have been controlling blight for up to 35 years. Today's challenges are: 1. Planting their progeny in environments where they can be expected to succeed, and 2. Breeding for resistance to the gall wasp which is endemic in our South & killing chestnuts in Italy, and also breeding for resistance to Phytophthora root rot, pervasive in our Piedmont. We have assigned the first problem to you, our Cooperating Growers, and we are just beginning to look into the second ones. We thank you all for your dedication to restoration of American chestnuts.

Respectfully submitted,

Lucille

Lucille Griffin, Executive Director

ACCF <https://accf-online.org>



Active Cooperative Growers and Friends (Not Shown Hawaii and Italy)

Other Officers:

Gary Griffin, President, Plant Pathology, Virginia Tech

Ed Greenwell, V.P. & Director of TN projects, Electrical Engineer, New Johnsonville, TN

John Rush Elkins, Secretary, Professor Emeritus Chemistry, Concord College, WV

Joyce G. Foster, Treasurer, Research Biochemist, Beaver, WV.

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

Dedicated to the restoration of American chestnuts

