October 17, 2020

Petition for Determination of Non-regulated Status: State University of New York College of Environmental Science and Forestry; Blight-Resistant Darling 58 American Chestnut (Docket Number: APHIS-2020-0030)

Thank you for this opportunity to comment on Docket Number: APHIS-2020-0030.

Founded in 1983, the Northeast Organic Farming Association of New York (NOFA-NY) is the premier statewide organization growing a strong organic and sustainable agriculture movement in New York State and is part of a regional network of seven Northeast Organic Farming Associations. NOFA-NY provides education and assistance to local organic and sustainable farmers; connects consumers with organic and sustainable farmers; advocates policies that support a sustainable and fair food and farm system at both the state and federal levels; and is the largest USDA-accredited organic certifier in New York certifying over 1,000 organic operations in the state.

New York State is a top US producer of organic products, ranking third in number of organic farms nationwide, with over 1800 organic certified entities statewide. With one of the biggest marketplaces in the world in the New York City metropolitan region, New York participates in a large portion of the over $52 billion in organic sales nationwide.

NOFA-NY opposes the release of the Darling 58 genetically engineered (GE) chestnut. Our objections to GE chestnuts start with the genetic engineering process itself. It is inherently disruptive to the genome of the plants it is used on.

It is not a precise technology. Packets of genetic material are shot randomly into host cells, disrupting DNA. Because of this, the majority of GE “events” harm the cells and often are fatal. The few cells that live are grown into baby trees via tissue culture. However, because of genetic damage, many grow poorly or have undesirable traits. Those that make the cut are grown on, but these still carry genetic disruptions. Studies show that often multiple copies of genes are inserted at various locations, containing extra DNA. The inserted packet of DNA includes not only the gene of interest, but also multiple other sequences of DNA that regulate and promote the production of the desired new chemical within the plant. Non-functional copies of parts of that packet, along with other DNA debris, wind up strewn through the chromosomes.

Thus, the overall ability of modified chestnut trees to thrive and adapt has been diminished. Since the one positive trait they possess will be resistance to chestnut blight, they will likely spread their degraded genetics throughout the wild population.
These damages can result in undesirable effects when the GE trees and their crosses grow in the forest environment. We cannot predict what they will be. Once this happens, the undesirable genetics cannot be called back.

A conventional breeding program can and will produce resistant American chestnuts, without the introduction of degraded DNA to the wild populations. More effort should be put into this approach. If the dollars spent on GE chestnuts had been devoted to conventional breeding, we would probably be very close to success by now.

Please deny this request for the release of GE chestnuts into the wild.

Sincerely,

Bethany Wallis,

Executive Director