



NATIONAL ASSOCIATION OF STATE FORESTERS

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December 23, 2022

Anthony Shea
Administrator, Animal and Plant Health Inspection Service
Docket No. APHIS-2020-0030
Regulatory Analysis and Development, PPD
APHIS, Station 3A-03.8
4700 River Road Unit 118, Riverdale, MD 20737-1238.

Docket No. APHIS-2020-0030; Document Citation: 87 FR 67861

Dear Administrator Shea,

The National Association of State Foresters (NASF) is pleased to provide comments in response to the United States Department of Agriculture (USDA) Animal and Plant Health Inspection Service's (APHIS) November 02, 2022 Federal Register notice of availability, *State University of New York College of Environmental Science and Forestry; Availability of a Draft Environmental Impact Statement and Draft Plant Pest Risk Assessment for Determination of Nonregulated Status for Blight-Tolerant Darling 58 American Chestnut (Castanea dentata) Developed Using Genetic Engineering (APHIS-2020-0030)*.

NASF represents the directors of forestry agencies in all 50 states, U.S. territories, nations in free association with the U.S., and the District of Columbia. These agencies protect and help manage over 500 million acres of forest across the U.S. hand-in-hand with local governments, individuals, and families. They also regularly contribute to the management and protection of federal forest lands.

Among the greatest threats identified in State Forest Action Plans are native and non-native pests and diseases which have the potential to displace native trees, shrubs, and other vegetation types in forests; the USDA Forest Service estimates that hundreds of native and non-native insects and diseases damage the Nation's forests each year, hence our vested interest in the potential to help restore native species through use of Genetically Modified Organisms (GMOs) under certain conditions.

NASF is concerned with the current and future impacts of non-native invasive pests and pathogens (hereafter referred to as *invasive species*¹) culminating in native U.S. forest species population loss or population degradation to the point of no longer being reproductively viable.

Executive Director
Jay Farrell

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Therefore, NASF supports the SUNY petition to APHIS for a determination of nonregulated status for the new biotechnology-derived, blight-tolerant American chestnut (*Castanea dentata*) tree, Darling 58, and any progeny derived from crosses between Darling 58 and any sexually compatible *Castanea* species.

NASF supports use of newly emerging biotechnology to help stem the loss of native forest species due to invasive species infestation, including the use of GMOs as a tool, under certain conditions. Recent scientific advancements in biotechnology now offer the potential of additional tools in the use of species protection from loss due to invasive pests and pathogens. One such tool with potential to become available to the forestry community are GMOs.

Between 1492 and 1982, the United States (and Canada) lost two native forest species to invasive species: American chestnut (*sp. Castanea dentata*) and American elm (*sp. Ulmus americana*). It is now estimated that 15+ forest species are currently at risk of eradication within the next 50 years due to invasive pests and pathogens². These include several species of ash, several species of oaks, Eastern hemlock, black walnut, American beech and bay laurel.

NASF believes there is a sense of urgency needed in order to protect America's native forests from present and future introduced pests. At this time there is no effective strategy for protecting pure American chestnut trees from the invasive fungus. The same holds true for many other tree species under attack from invasive pests and pathogens. The use of Mendelian crossbreeding programs is slow, laborious and does not provide research data for years. Hybrid breeding programs using the American chestnut and Chinese chestnut (*sp. Castanea mollissima*) have been ongoing for decades with limited success.

Reasons for supporting a determination of nonregulated status for Darling 58

- Darling 58 has been studied in detail and no plant pest or environmental risks have been observed.
- Darling 58 expresses a wheat gene for oxalate oxidase (Dratewka, Kos et al., 1989) which protects the tree from damage caused by chestnut blight.
- Nutritional analysis of Darling 58 chestnuts shows that there are no substantial nutritional differences compared to non-transgenic nuts, and analysis of the OxO enzyme indicates a lack of allergenicity or toxicity.
- The OxO gene chosen from wheat is well characterized and is consumed daily by people and livestock.

NASF continues to support traditional tree breeding methods and integrated pest management in the fight against invasive species. However, when these efforts cannot offer timely remediation, additional tools need be introduced.

Seeing the potential positive impact of GMOs in the forestry community, NASF adopts the following policy:

The National Association of State Foresters supports the use of genetically modified organisms (GMOs) for the protection and restoration of U.S. native forest species critically threatened by invasive species with the following conditions:

- The subject species must be shown to adhere to USDA/APHIS/Environmental Protection Agency guidelines for introduction of GMO organisms into the natural environment and be approved by such agencies as set forth in U.S. regulation.
- The subject species must be recognized by United States Fish and Wildlife Service (USFWS) as a native U.S. forest species.
- The subject species must be recognized by USFWS as no longer reproductively viable in its natural range or in jeopardy of no longer being reproductively viable in its natural range due to invasive species depredation.

We appreciate the opportunity to provide input and look forward to the continued dialogue.

Sincerely,

A handwritten signature in blue ink, appearing to read 'Kacey KC', with a long horizontal flourish extending to the right.

Kacey, KC
NASF President
Nevada State Forester

Works Cited

¹For this statement "invasive species" means a species of insect, plant or pathogen that is not native to a particular U.S. ecosystem or region, whose introduction causes or is likely to cause economic or environmental harm or harm to human health.

²Potter, K.M., Escanferla, M.E., Jetton, R.M., Man, G., Crane, B.S., Prioritizing the conservation needs of United States tree species: Evaluating vulnerability to forest insect and disease threats, *Global Ecology and Conservation* (2019), <https://doi.org/10.1016/j.gecco.2019.e00622>