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Comment on Document ID: APHIS-2020-0030-4324 (Federal Register Number: 2021-16771): State University of New York College of Environmental Science and Forestry; Notice of Intent To Prepare an Environmental Impact Statement for Determination of Nonregulated Status for Blight-Tolerant Darling 58 American Chestnut (*Castanea dentata*) Developed Using Genetic Engineering

Prepared by the Public Policy Board of the American Phytopathological Society, Version 106

The American Phytopathological Society (APS), a scientific society of over 4,200 scientists and plant health experts, supports APHIS's intent to prepare an environmental impact statement (EIS) to evaluate the impacts of nonregulated status of the bioengineered Darling 58 American Chestnut. To our collective scientific knowledge, Darling 58 does not pose a plant pest risk under 7 CFR Part 340 for the reasons stated below.

The members of APS have over 100 years of expertise in the agricultural plant sciences and allied disciplines, and represent a diverse community of researchers, educators and field practitioners involved in plant production and protection in the U.S. and around the world. As a professional society, APS is committed to integrating fundamental and applied knowledge into applications for sustainable health and productivity of agricultural and forest ecosystems. This includes helping to translate knowledge of the interactions among plants and their biotic and abiotic environments into sustainable crop productivity and forest management practices that include restoration of keystone species such as the American Chestnut.

Tolerance to the blight fungus in Darling 58 was generated by a single gene and can be passed on to subsequent generations. This gene was added for an enzyme called oxalate oxidase. This enzyme has no direct fungicidal properties and poses no threat to the physical environment, human health, threatened or endangered species, and has no impact to managed, natural and non-agricultural lands. Oxalate oxidase is a common enzyme found in food products, all grains, and in many wild plants. Its properties are well understood and have been widely studied. Although the enzyme has been derived from wheat in Darling 58, it is not related to gluten and does not match any known allergens. Further, Darling 58 American chestnuts retain 100% of their natural complement of genes and no native genes or alleles have been removed or replaced, and expression of other genes is not affected.

The purpose of introducing Darling 58 trees is not to replace the surviving remnant American chestnut population, but to help restore it by allowing introgression of the blight tolerance trait and to ultimately produce a viable restoration population from their offspring. Data collected from field studies and long-term evaluation of the utility of these transgenic trees in the original natural range of American Chestnut would further bolster our current scientific evidence of no non-target or environmental hazards and would provide a novel approach to restoring this keystone species and others

If Darling 58 American chestnuts are granted nonregulated status, petitioners should communicate and cooperate with the U.S. Forest Service and chestnut breeding programs in the U.S. including the American Chestnut Foundation, American Chestnut Cooperators Foundation and the Connecticut Agricultural Experiment Station for site selection for nursery stock and seedling quality, and best-practice management of long-term plantings. The Darling 58 trees should also be made available for

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not-for-profit distribution to the public and to groups including private, state and federal restoration programs.

Since release of Darling 58 trees do not pose a risk to the environment or to human health, and will ultimately enhance conservation and restoration of the American chestnut, the American Phytopathological Society supports an EIS conducted by APHIS to move forward with eventual approved nonregulated status.