

With respect to commercial production of commodities, however, the Administrator notes that judgments about the extent to which O₃-related effects on commercially managed vegetation are adverse from a public welfare perspective are particularly difficult to reach, given that what is known about the relationship between O₃ exposures and agricultural crop yield response derives largely from data generated almost 20 years ago. The Administrator recognizes that there is substantial uncertainty at this time as to whether these data remain relevant to the majority of species and cultivars of crops being grown in the field today. In addition, the extensive management of such vegetation may to some degree mitigate potential O₃-related effects. The management practices used on these lands are highly variable and are designed to achieve optimal yields, taking into consideration various environmental conditions. Thus, while the Administrator believes that a secondary standard revised to provide protection for sensitive natural vegetation and ecosystems would likely also provide some degree of additional protection for heavily managed commercial vegetation, the need for such additional protection is uncertain.

Based on these considerations, and taking into consideration the advice and recommendations of CASAC, the Administrator concludes that the protection afforded by the current secondary O₃ standard is not sufficient and that the standard needs to be revised to provide additional protection from known and anticipated adverse effects on sensitive natural vegetation and sensitive ecosystems, and that such a revised standard would also be expected to provide additional protection to sensitive ornamental vegetation. The Administrator also concludes that there is not adequate information to establish a separate secondary standard based on other effects of O₃ on public welfare. It

Deleted: Furthermore, the Administrator also agrees with the CASAC Panel and the Staff Paper conclusions that in revising the secondary standard to provide increased protection it is appropriate to establish a secondary standard that is distinct from the primary standard in that it is based on a biologically relevant form. The Administrator finds the evidence is compelling that O₃-related effects on vegetation are best characterized by an exposure index that is cumulative and seasonal in nature, and that revising the current standard in part by adopting such a form is both necessary and appropriate to ensure a requisite degree of protection.

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