

**National Organic Standards Board
Crops Subcommittee
Petitioned Material Discussion Document
Ethylene
August 6, 2024**

Summary of [Petition](#)

The National Organic Standards Board (NOSB) received a petition to expand use of ethylene gas to include sprouting inhibition on organic potatoes and onions. The petitioner is a manufacturer of equipment that generates ethylene gas onsite through the catalytic conversion of ethyl alcohol. Ethylene is currently allowed at 7 CFR 205.605(b) for use in postharvest ripening of tropical fruit and degreening of citrus.

Summary of Review:

The Handling Subcommittee (HS) has ordered a limited scope technical review (TR) to evaluate any human health or environmental concerns related to the use of ethylene, specifically when used to inhibit sprouting of potatoes or onions. We anticipate receiving this TR in sufficient time to inform a proposal for the Spring 2025 meeting. The HS has also interviewed organic potato and onion growers to gauge interest in use of the substance. One organic potato grower indicated that the nonsynthetic sprout inhibitor currently allowed, clove oil, has limited effectiveness and can cause significant irritation to workers applying it. One organic onion grower expressed interest in the use of ethylene if it reduced the percentage of onions that must be culled when packing. As we await the technical review, we welcome any feedback from stakeholders on the use of ethylene as a sprout inhibitor in organic potatoes and onions.

Questions:

1. Ethylene has the potential to extend storage life and reduce culls in organic potatoes and onions. Should HS consider this substance any differently than it does for ripening tropical fruit because in the petitioned use it would be inhibiting growth rather than encouraging it?
2. It appears that clove oil is currently in use to inhibit sprouting in organic potatoes, but it may be less effective and cause health risks for workers. How should HS consider petitioned synthetic substances which may pose less of a human health concern than natural alternatives?
3. If the HS recommends an annotation change to ethylene to permit its use as a sprout inhibitor, should HS consider any additional revisions to the annotation related to ripening of tropical fruit or degreening citrus for these allowed uses to be more clear?

Subcommittee Vote:

Motion to accept the discussion document on ethylene petitioned for use as sprout inhibitor on organic potatoes and onions.

Motion by: Nate Lewis

Second by: Kyla Smith

Yes: 7 No: 0 Abstain: 0 Recuse: 0 Absent: 2

