

**Formal Recommendation by the
National Organic Standards Board (NOSB)
to the National Organic Program (NOP)**

Date: April 29, 2011

Subject: Sunset of Copper Products

Chair: Tracy Miedema

The NOSB hereby recommends to the NOP the following:

Rulemaking Action X
Guidance Statement
Other

Statement of the Recommendation (Including Recount of Vote):

Relist copper products: **§205.601 Synthetic substances allowed for use in organic crop production.**

- (i) As plant disease control
 - (2) Coppers, fixed--copper hydroxide, copper oxide, copper oxychloride, includes products exempted from EPA tolerance, *Provided*, That, copper-based materials must be used in a manner that minimizes accumulation in the soil and shall not be used as herbicides.
 - (3) Copper sulfate--Substance must be used in a manner that minimizes accumulation of copper in the soil. The Crops Committee motion that would have added a requirement for periodic soil testing failed by a vote of 6 yes, 8 no.

Rationale Supporting Recommendation (including consistency with OFPA and NOP):

The accumulation of copper in the soil is detrimental to the environment and therefore must be monitored and carefully managed. The buildup of copper in the soil can be toxic to earthworms, fungi (including mycorrhizae), bacteria, and most soil animal life. Because copper is highly toxic to most aquatic species, runoff into waterways must be avoided. Good management practices require close monitoring to ensure that there is no accumulation in the soil. The Committee will work with the National Organic Program to advance guidance that ensures that organic operations are strictly meeting, and to the extent possible, exceeding the standards established by the product label in meeting principles of sustainability and a sustainable work environment for all those who work in organic production.

NOSB Vote:

| | | | | |
|---------------------------|--------------|------------------------------|------------------|-------------------|
| Moved: John Foster | | Second: Katrina Heinz | | |
| Yes: 14 | No: 0 | Abstain: 0 | Absent: 0 | Recusal: 0 |

**National Organic Standards Board
Crops Committee
2012 Sunset Recommendation
Coppers**

April 29, 2011

List: §205.601 Synthetic substances allowed for use in organic crop production.

- (i) As plant disease control
 - (1) Coppers, fixed--copper hydroxide, copper oxide, copper oxychloride, includes products exempted from EPA tolerance, *Provided*, That, copper-based materials must be used in a manner that minimizes accumulation in the soil and shall not be used as herbicides.
 - (2) Copper sulfate--Substance must be used in a manner that minimizes accumulation of copper in the soil.

Summary

The Crops Committee recognizes, as have all the technical reviews going back to 1995, that, while effective in management plant diseases, the accumulation of copper in the soil is detrimental to the environment and therefore must be monitored and carefully managed. The buildup of copper in the soil can be toxic to earthworms, fungi (including mycorrhizae), bacteria, and most soil animal life. Because copper is highly toxic to most aquatic species, runoff into waterways must be avoided. Good management practices require close monitoring to ensure that there is no accumulation in the soil.

Workers on the farm are exposed to copper pesticides through mixing, loading and/or applying the pesticide (handlers) or re-entering treated sites. It is recognized that allowed copper compounds and formulations cause dermal or eye irritation and can cause other health problems. While the labels on products contain precautionary language, the committee understands that appropriate Personal Protective Equipment (PPE) must be utilized and compliance with EPA's Worker Protection Standard, including adherence to reentry intervals, is absolutely critical when these products are used. The Committee will work with the National Organic Program to advance guidance that ensures that organic operations are strictly meeting, and to the extent possible, exceeding the standards established by the product label in meeting principles of sustainability and a sustainable work environment for all those who work in organic production.

In public comments, the concern was also raised that these copper products are listed without specifying their use, which makes it difficult for the board to determine whether they meet the essentiality criterion.

Committee Recommendation

The Crops Committee recommended the continued listing of coppers (fixed) and copper sulfate with the addition of language that requires periodic testing of the soil for copper levels. The motion was to amend the current listing of coppers (fixed) and copper sulfate to read: "(i) As plant disease control. (1) Coppers, fixed—copper hydroxide, copper oxide, copper oxychloride, includes products exempted from EPA tolerance, Provided, That, copper-based materials must be used in a manner that minimizes accumulation in the soil and documented through periodic testing and shall not be used as herbicides" and "(2) Copper sulfate—Substance must be used in a manner that minimizes accumulation of copper in the soil and documented through periodic testing."

Committee Vote

Motion: Jay Feldman

Second: Barry Flamm

Yes: 6

No: 0

Absent: 0

Abstain: 0

Recuse: 0