

**National Organic Standards Board  
Crops Committee  
Sunset 2012 Proposed Recommendation  
Sodium Nitrate**

**March 7, 2011**

**Current listing**

§ 205.602 (g): Sodium nitrate—unless use is restricted to no more than 20% of the crop's total nitrogen requirement.

**Committee Summary**

Sodium nitrate was originally reviewed by Johnson, Spencer, Sachs, and Jeffrey, in 1994/5. The Crops Committee (CC) at that time determined it to be non-synthetic. The NOSB then determined that this material is unacceptable for use in organic crop production; voting it down 4-9-1 on April 27, 2005. Subsequent NOSB vote on November 1, 1995 prohibited sodium nitrate with exception as specified in annotation--Prohibited unless use is restricted to no more than 20% of crop's total nitrogen requirement. This percentage was a common restriction found in CCOF and other private party standards prior to the implementation of the NOP. In the previous sunset vote on November 17, 2005, the CC voted 5-0 to relist and the NOSB voted 14-0 to relist.

Production needs have been reportedly variously for some crops needing nitrogen for growth in cold or cool conditions, typically ascribed as necessary for leafy greens or cruciferous crops early in the season. However, use has in fact not been limited to these crops and is often found used in onions, carrots, potatoes, and other crops, but is, generally speaking, used in cooler conditions.

Human health concerns have generally been considered as minimal. Environmental/Ecological concerns focus on it being a mined, non-renewable resource and that it contributes sodium to soil. Being a foliar feed, it also does not support soil fertility through other tactics, such as additions of compost or the use of cover crops. Disposal concerns have generally been considered as minimal.

The Crops Committee discussed the Action Memorandum from the National Organic Program regarding sodium nitrate of September 21, 2010 at their regularly scheduled weekly crops committee meeting on September 27, 2010. The discussion was full and extensive, noting that the crops committee had already requested a TR for this material in the context of Sunset 2012. At that time, annotation change within sunset review was not an accepted policy of the

NOSB. Additionally, the Committee wanted to use information the TR would presumably provide and full input from the organic community regarding this material and its use.

The Committee noted that there were no existing NOSB policies or precedents for changing annotations or prohibiting a material without a petition from the organic community and that equivalency agreements or ease of trade were not included among the NOSB's review criteria. The Committee felt that all work should be done within our established process with full input from the public considered and did not feel that it would be appropriate to treat the memo as a petition without an established protocol for doing so. Since sodium nitrate was already being considered as part of the 2012 sunset process, the Committee decided to deal with this issue within that context. The Committee agreed that it is appropriate to consider during our regular sunset deliberations the principles that underlie the impediments to equivalency and did so. By virtue of the summary above and the discussion below, it is the Committee's intention for this sunset review to also serve as the response to the request from the NOP for review of sodium nitrate through its Action Memorandum of September 21, 2010.

Based on the controversial nature of sodium nitrate and the lack of international harmonization of standards regarding this material, the Crops Committee deferred the sunset deliberations and vote pending more up to date technical information and allowance for additional public comment. In reviewing this material, the Committee considered information from technical sources, past committee and board recommendations, public and comment, transcripts of past NOSB board meetings, and prior Committee and Board deliberations.

Sodium nitrate is highly soluble, generally having an analysis of around 16-0-0, and it tends to be used in support of crop production in cool conditions and in crops needing a quick boost of nitrogen, whether that be leafy greens or to promote leaf growth that will later support fruit, stem, tuber or root growth. It is used alone and also compounded in commercial fertilizer product formulations. The 2002 TAP indicates that it leaches into groundwater, is regulated as a contaminant, and has contributed to the decreased earthworm populations.

Use and dependence on sodium nitrate also can tend to producers to put off the need for strong soil-building practices, consistent with §205.203, since it behaves similarly to conventional synthetic nitrogen fertilizers. Organic producers that want to use highly soluble products do have alternatives in the form of agricultural byproducts and food processing derivatives, which are in far greater supply than when the material was first placed on the National List and are in forms more comparable and effective to use than in years past. The Committee noted that while producers *may* use of mined substances as per §205.203(d)(3), producers *must* manage crop nutrients and soil fertility through rotations, cover crops, and the application of plant and animal materials, as per §205.203(b) and the Committee wished to remind the NOSB as a whole and organic community of that distinction.

In general, there appears to be a common perception that the material is used primarily in the western US and not in the eastern US; however there are some notable and documentable

exceptions in both cases. Public comment has been mixed and more is anticipated at the April 2011 NOSB meeting, but there was consensus among the Committee that there is significant industry support to remove the existing annotation and the Committee concurred with those rationales.

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With no action, the material would sunset from § 205.602, which would result in unrestricted use. Removal of the annotation would result in prohibition of the material. Relisting as is would result in maintaining the status quo.

Two proposed recommendations are provided, consistent with other sunset recommendations, in the event that there is an unforeseen impediment to implementing the first recommendation, there is a default recommendation to rely on.

### **Committee Recommendation**

Relist sodium nitrate § 205.602(g) without annotation.

### **Committee Vote**

Motion: Jeff Moyer                      Second: Tina Ellor  
Yes: 7                      No: 0                      Abstain: 0                      Absent: 0

### **Committee Recommendation**

Relist sodium nitrate § 205.602(g) with annotation: “—unless use is restricted to no more than 20% of the crop's total nitrogen requirement.”

### **Committee Vote**

Motion: Barry Flamm                      Second: Tina Ellor  
Yes: 7                      No: 0                      Abstain: 0                      Absent: 0