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April 5, 2011

National Organic Standards Board
Spring 2011 Meeting
Seattle WA

Re. CC: Sodium Nitrate (Chilean Nitrate)

Dear Board Members:

These comments are submitted on behalf of Beyond Pesticides. Beyond Pesticides, founded in 1981 as a national, grassroots, membership organization that represents community-based organizations and a range of people seeking to bridge the interests of consumers, farmers and farmworkers, advances improved protections from pesticides and alternative pest management strategies that reduce or eliminate a reliance on pesticides. Our membership and network span the 50 states and groups around the world.

We support the first recommendation of the committee—to relist sodium nitrate on §205.602(g) without annotation.

Soil fertility in organic systems comes from the functioning of the soil food web. Highly soluble nitrogen sources such as sodium nitrate give a quick boost to plant growth and bacterial activity, but populations of bacteria and other soil food web organisms crash when they use up the readily available nitrogen, which ultimately has a detrimental impact on the fertility of the soil. As explained in the AATRA publication "Sustainable Soil Management,"

> Excessive nitrogen applications stimulate increased microbial activity, which in turn speeds organic matter decomposition. The extra nitro gen narrows the ratio of carbon to nitrogen in the soil. Native or uncultivated soils have approximately 12 parts of carbon to each part of nitrogen, or a C:N ratio of 12:1. At this ratio, populations of decay bacteria are kept at a stable level (20), since additional growth in their population is limited by a lack of nitrogen. When large amounts of inorganic nitrogen are added, the C:N ratio is reduced, which allows the populations of decay organisms to explode as they decompose more organic matter with the now abundant nitrogen. While soil bacteria can efficiently use moderate applications of inorganic nitrogen accompanied by organic amendments (carbon), excess nitrogen results in decomposition of existing organic matter at a rapid rate. Eventually, soil carbon content may be reduced to a level where the bacterial populations are on a starvation diet. With little carbon available, bacterial populations shrink, and less of the free soil nitrogen is absorbed. Thereafter,

applied nitrogen, rather than being cycled through microbial organisms and re-released to plants slowly over time, becomes subject to leaching. This can greatly reduce the efficiency of fertilization and lead to environmental problems.[1]

While low nitrogen availability in cool soils may pose a challenge, we would like to point out that Norway and Switzerland were among the countries supporting a continued ban on sodium nitrate in organic agriculture in Europe.[2] If organic growers can meet their nitrogen needs in Norway without highly soluble inputs, then growers should be able to manage in the northern United States.

Finally, we offer a few more reasons that sodium nitrate does not belong in organic agriculture:

- Reliance on mined nutrients from another continent is not sustainable.
- Soluble nitrate fertilizers are a leading source of water pollution.
- Sodium nitrate also has a high salt index.

Sincerely,

Terry Shistar, Ph.D.
Member, Board of Directors

[1] Preston Sullivan, 2004. Sustainable Soil Management, pages 12-13. http://attra.ncat.org/attra-pub/PDF/soilmgmt.pdf, accessed 3/30/2011.

[2] Comments on proposed draft amendment to the guidelines for the production, processing, labelling and marketing of organically produced foods: proposed draft revised annex 2 – table I (natural sodium nitrate) (Alinorm 04/22, Appendix VIII & CL 2004/22-FL) ftp://ftp.fao.org/Codex/ccfl33/fl33_05e.pdf