



# BEYOND PESTICIDES

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April 5, 2011

National Organic Standards Board  
Spring 2011 Meeting  
Seattle WA

## Re. CC: Pheromones

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 Crops Committee recommendation with the addition of the language that ensures that the pheromones ***are identical to or substantially similar to natural pheromones as defined in 40 CFR 152.25(b)***,

Pheromones are valuable to organic producers, especially fruit producers. In general, they are low in toxicity and eliminate the use of much more toxic products. However, we have a problem with making a generic recommendation covering all uses of all pheromones. The class of chemicals used as pheromones to control insects encompasses a wide range of synthetic volatile organic chemicals, some of which may not be exactly the same as the actual chemical used by the insect. In addition, pheromone products contain a wide range of so-called “inert” ingredients. It is impossible to make a decision about the safety or appropriateness for organic agriculture of “pheromones” as a class.

Furthermore, pheromones in passive dispensers are the only products permitted in organic production to use so-called “inert” ingredients that were listed by EPA as “inerts of unknown toxicity.” These ingredients are more properly known as “secret ingredients” since they are not listed on the product label and are neither chemically nor biologically inert.

The use patterns of pheromones vary from attractants used to attract insects to traps, to devices impregnated with pheromones designed release pheromones by volatilization, to puffers producing periodic mists, to sprays of microencapsulated pheromones. Pheromones used to attract insects to traps necessarily emit small quantities, since the insect must be able

to follow a trail to the trap. Other methods are frequently used to fill the tree canopies or entire orchard with pheromone in order to confuse the target insect.

The law requires that the NOSB consider a wide range of factors before approving a synthetic input into organic agriculture. These factors include impacts of manufacture, use, misuse, and disposal; biological and chemical interactions with other materials, the agroecosystem, and the soil; possible toxic effects of the material or breakdown products in humans or others; and alternative materials and practices. These factors cannot be considered in weighing pheromones as a class. They require that the board address individual pheromone formulations.

Although EPA standards are not the same as the standards of OFPA, the EPA conditions for pheromone products that are exempt from regulation under FIFRA come close to describing products that could be allowed in organic production without further examination:

**§ 152.25 (b) *Pheromones and pheromone traps.*** Pheromones and identical or substantially similar compounds labeled for use only in pheromone traps (or labeled for use in a manner which the Administrator determines poses no greater risk of adverse effects on the environment than use in pheromone traps), and pheromone traps in which those compounds are the sole active ingredient(s).

(1) For the purposes of this paragraph, a pheromone is a compound produced by an arthropod which, alone or in combination with other such compounds, modifies the behavior of other individuals of the same species.

(2) For the purposes of this paragraph, a synthetically produced compound is identical to a pheromone only when their molecular structures are identical, or when the only differences between the molecular structures are between the stereochemical isomer ratios of the two compounds, except that a synthetic compound found to have toxicological properties significantly different from a pheromone is not identical.

(3) When a compound possesses many characteristics of a pheromone but does not meet the criteria in paragraph (a)(2) of this section, it may, after review by the Agency, be deemed a substantially similar compound.

(4) For the purposes of this paragraph, a pheromone trap is a device containing a pheromone or an identical or substantially similar compound used for the sole purpose of attracting, and trapping or killing, target arthropods. Pheromone traps are intended to achieve pest control by removal of target organisms from their natural environment and do not result in increased levels of pheromones or identical or substantially similar compounds over a significant fraction of the treated area.

With the explanation of “passive dispensers” given in the summary section, and with the exception of the allowance of inerts formerly listed on List 3, we believe that the committee recommendation is close to the EPA exempt pheromone products. However, the question of List 3 inerts must be addressed, and the particular pheromone chemical should also be substantially identical to the naturally occurring pheromone, as described in the EPA regulation

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above. We understand that the inerts question will be addressed at a later meeting, and believe that the committee language allows the effects of this listing to change as the inerts language changes. We suggest that the annotation be changed to come in line with the criterion of "identical to substantially similar to" natural pheromones in the EPA regulation.

In conclusion, we cannot support blanket approval of pheromone products that fill orchards with clouds of synthetic volatile organic chemicals, many unknown, and all untested against the criteria that the NOSB is required to apply to synthetic chemicals used in organic production. We support Crops Committee recommendation as amended below:

List pheromones for insect management on § 205.601, provided that they ***are identical to or substantially similar to natural pheromones as defined in 40 CFR 152.25(b)***, in passive dispensers, without added toxicants, and with only approved inert ingredients.

We believe that there may be other pheromone products that should be listed in §205.601, but that the petition process should be used in order to determine whether they meet OFPA criteria.

Sincerely,

A handwritten signature in black ink, appearing to read "Terry Shistar". The signature is fluid and cursive, with a long horizontal stroke at the end.

Terry Shistar, Ph.D.  
Board of Directors