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Organic Apiculture Guidance Document, Final Draft

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Based upon

NOSB Apiculture Task Force Report Draft Organic Apiculture Standards

Compiled by James A. Riddle, ATF Chair September 15, 2001

Introduction

The ACA Apiculture Working Group has developed this Organic Apiculture Guidance Document to assist organic producers and accredited certifying agents in determining appropriate practices for organic apiculture. The group reviewed several apiculture standards, and incorporated requirements from these in an effort to harmonize US standards with Canadian and European requirements. Members of the Apiculture Working Group have experience in certification and inspection of organic apiculture operations, and in several cases managing of apiculture operations. Participants in the Working Group represented the following ACA member organizations:

BCS Okeo Garantie

HOFA

MOFGA

MOSA

OneCert

OTCO

PCO

QAI

VOF

and in addition, Harriet Behar participated

The Apiculture Working Group is aware of the complexities of organic apiculture production, and consumer perceptions of organically produced products. The Group believes that organic apiculture must strive to meet the same level of strictness as other organic production requirements.

Issues that the group discussed in detail included

- **The definition of forage zone**

The Group established a 1.8 mile radius from the bee yard as the forage zone for bees. This area can either be an agricultural area or wild crop area, and must be included in the producer organic system plan. It was acknowledged by the Group that residential areas within the forage zone could be problematic regarding the use of organically prohibited materials; however, the Group believes that producers must obtain an adjoining land use affidavit from the landowner stating no prohibited materials are used.

In addition, as the Group believes that bees may travel further than 1.8 miles, the producer must also monitor a surveillance zone for an additional radius of 2.2 miles beyond the forage zone area.

- **Transition period of one year**

The 2001 NOSB recommendation required 270 days as the transition period for hive. However, Canada and the EU regulations require one year. The Group decided that we did need to harmonize with the Canadian and EU regulations, and chose the one year transition time for the colony and the hive equipment. It was discussed among the Group that since bees do not normally survive a full year, it was not necessary to establish this extended time. However, it was also discussed that organic beekeeping can have a steep learning curve, and the one year time would permit the beekeeper to develop management practices to address organic production. The Group also believed that since hives may have been treated with prohibited materials prior to transition to organic, all foundation wax must be new at the start of the one year transition. Other existing equipment, such as hive bodies and frames may be used in the organic production.

- **Replacement bees**

This topic was *the* most discussed topic of the Group. The majority of the Group believes that organic beekeepers must develop a management system that encourages bee health, including overwintering. Organic beekeeping prohibits the intentional killing of a colony after removal of the honey, and then purchasing packaged bees to re-start the colony in the spring. It was noted that packaged bees have been exposed to several prohibited materials prior to shipping and have likely been fed non-organic food sources. The Group also believed that bees adapt to a particular environment, and improve their genetics over the years. Continually importing packaged bees does not strengthen the genetic traits of the existing bees, and the majority did not see this as a positive management practice. The Group believed that organic producers should be raising their own replacements. The Group also does not believe that non-organic nucleus colonies should be permitted. However, recognizing that there can be catastrophic loss in colonies, the Group did agree that replacement bees representing up to 25% of hives present in the previous honey flow could be used. (Example: if there were 20 hives the previous honey flow, 5 packages of bees could be utilized to rebuild the colony.) One member of the Group believes that there should not be a limit placed upon the number of packaged bees allowed. In addition to the restriction of 25% replacement, the bees must be transitioned for 60 days prior to honey producing equipment being added to the hives.

This draft document was distributed to ACA members, who in turn distributed this to their clients and others with an interest in beekeeping. Comments were received from beekeepers in various parts of this country, inspectors and researchers experienced with beekeeping. Based on these comments the document was revised from previous drafts.

We recognize that the topics of forage zone and use of replacement bees will continue to be debated, thus this document is left as a draft document. We welcome continued discussion.

Organic Apiculture Guidance Document

§ 205.2 Definitions.

Apiary or bee yard. An area of a collection of hives or colonies of bees kept for their bee products.

Apiculture. The management and production of honey bees and queens and their products including but not limited to honey, beeswax, pollen, royal jelly, propolis, and bee venom.

Bee products. Honey, wax, pollen, propolis, royal jelly and bee venom.

Colony. Queen bee with its attendant worker bees and drone bees used to produce bee products.

Forage zone. Land or bodies of water, within a 1.8 mile (3 km) radius of the apiary/bee yard which provides bees with water, nectar, honeydew, pollen and propolis.

Hive. Equipment used in the production of bee products to include hive boxes, bottom boards, covers, frames, comb.

Nucleus colony or nuc. A smaller sized hive box with reduced numbers of bees and brood, usually containing a queen; used for expansion of the apiary operation.

Replacement bees. Bees introduced into an existing organic apiary operation to replenish established colonies which have been lost to overwintering, predators or other catastrophic loss.

Surveillance zone. Land area of a 2.2 mile radius (3.4 km) beyond the forage zone which may not contain high risk activities.

§ 205.240 Apiculture practice standard.

(a) Origin of bees

(1) Transition

Bee products from an apiculture operation that are to be sold, labeled, or represented as organic must be from colonies and hives which have been under continuous organic management for no less than one year prior to the removal of the bee products from the hive.

At the beginning of the one year transition, foundation wax must be replaced and all brood comb must be new and produced by bees under organic management.

Foundation may be sourced from:

- (i) Organic foundation
- (ii) Plastic foundation dipped in organic wax
- (iii) Wax foundation, or plastic foundation dipped in either conventional or organic wax.

Once an entire apiary has been converted to organic production, all plastic foundation must be dipped in organic wax. Queen bees are not required to undergo transition.

(2) Replacement Bees

The introduction of bees from organic sources or from non-organic sources (i.e. packaged bees), is permitted for replacement purposes *Provided*, That the bees from non-organic sources are limited to 25% of hives present in the previous honey flow, are managed organically for at least 60 days , and honey producing equipment is removed from the hive during the 60 days.

(3) Expansion of the apiculture operation may be done by

- (i) Purchase of organic hives and bees
- (ii) Splitting of existing organic colony to form nucleus colony
- (iii) Purchase of nonorganic bees, providing that they undergo a one year transition as per requirements in §205.240(a)(1).

(b) A producer of organic apiculture products must develop an organic apiculture plan in accordance with the provisions in § 205.201. In addition, the organic apiculture plan must:

- (1) Contain a map of the apiary which shows the location of the hives, the forage zone, including the location of organic and wild land, and the surveillance zone, including the location of all non-organic areas;
- (2) Provide a description of all crops grown, the quantity of organic and/or wild forage to be provided per colony, including the type or types of forage, approximate bloom period, forage density, competing species density, honeybee colony density, colony health, colony strength, topography, and climatic conditions; and any sources of potential contamination located within the 1.8 mile (3 km) forage zone.
- (3) Provide a description of crops grown and high risk activities such as sanitary landfills, incinerators, sewage treatment facilities, power plants, golf courses, towns or cities, land to which prohibited materials are applied, and all other sources of potential contamination located in the surveillance zone of 2.2 miles (3.4 km) beyond the forage zone. GMO crops, deemed by the accredited certifying agent to be attractive to bees, are not permitted on land within the surveillance zone.
- (4) Describe the water sources available in the forage zone;
- (5) For split operations, list and describe the management practices used to prevent commingling and contamination, including measures to prevent commingling resulting from bee drift and robbing.

- (c) A producer of organic apiculture products must maintain records in accordance with § 205.103 and § 205.236(c). Split operations are required to identify hives that have been treated with materials not permitted under §205.603 or materials prohibited under §205.604. Records must include:
- (1) map of the forage zone, the surveillance zone, and the flowering times of the various plants in those zones for all bee yards
 - (2) affidavits verifying the 3 year land management history for the certified forage zones
 - (3) sources of foundation and whether foundation is organic
 - (4) date of last use of prohibited substances
 - (5) identification system for hives and bee yards
 - (6) verification that all comb has been drawn out under organic management
 - (7) the season these “clean” frames had been used for the production of organic honey
 - (8) a system of tracking hives, queens introduced or raised, monitoring through the season
 - (9) a list of inputs used and labels of inputs
 - (10) records of feeding including materials and dates
 - (11) source of any organic sugar, organic honey, organic pollen and/or organic pollen substitutes fed to colonies; certification documentation for materials fed
 - (12) estimated yields of all bee products per hive
 - (13) dates of harvest of bee products
 - (14) sales records of bee products
 - (15) packaging and labeling for bee products sold
- (d) The producer must maintain colonies on land that is managed in accordance with the provisions in § 205.202 through 205.206 or § 205.207.
- (e) The producer must provide bees with organic feed and water by:
- (1) managing the forage zone as certified (for crops or wild harvest) according to provisions of 205.202 through 205.207, or
 - (2) allowing bees from their operation to forage on non-organically managed land when adequate forage from organically managed land and/or land that is managed in accordance with § 205.207, as defined by the operation’s organic apiculture plan, has been provided.
- (f) The producer of an organic apiculture operation may:
- (1) provide supplemental feed from organic honey, organic sugar syrup, and/or pollen substitutes and supplements that are allowed under 205.603, *Except*, That, the producer must not provide organic sugar syrup less than 15 days prior to placement of bee product collection equipment.
- (g) The producer of an organic apiculture operation must not:
- (1) Maintain colonies in an area where a significant risk of contamination by prohibited materials during forage season exists within a 1.8 mile (3 kilometers) radius of the apiary, as described in the operation's organic apiculture plan. Significant risk includes, but is not limited to, use of excluded methods, any herbicides, or pesticides applied to nectar or pollen producing crops.

- (h) Approved hive construction materials include:
- (1) Hives must be made of natural materials, including wood and metal.
 - (2) Outside hive surfaces may be painted with non-lead based paints.
 - (3) Plastic foundation may be used if dipped in organic beeswax
- (i) The producer must establish and maintain preventive health care practices, including:
- (1) Selection of bee stocks, hive densities, and colony locations appropriate to site-specific conditions and resistant to prevalent diseases and pests;
 - (2) Maintenance of adequate supplies of honey and pollen in the hive, including leaving hives with reserves of honey and pollen sufficient for the colony to survive the dormancy period;
 - (3) Use of foundation wax not contaminated with diseases or pests;
 - (4) Destruction of equipment and bees contaminated with disease or pests;
 - (5) Use of management methods or modified equipment to control pests and diseases;
 - (6) Use of therapeutic applications of non-synthetic materials to control pests, parasites, and diseases, *Provided*, That such materials are not prohibited under § 205.604; and
 - (7) Use of therapeutic applications of synthetic materials, *Provided*, That such materials are allowed under § 205.603.
- (j) The producer must not:
- (1) Accept the presence of pests, parasites, or disease without initiating efforts to restore the health of the colony;
 - (2) Use synthetic materials not listed as allowed under § 205.603;
 - (3) Use non-synthetic materials prohibited under § 205.604;
 - (4) Use lumber treated with synthetic materials not listed as allowed under § 205.603 or non-synthetic materials prohibited under § 205.604 for hive construction materials;
 - (5) Use synthetic materials or non-synthetic materials prohibited under § 205.604 in bee smokers;
 - (6) Use synthetic bee repellants to remove bees from their honey;
 - (7) Annually destroy bee colonies following honey flows;
 - (8) Rotate hives between organic and non-organic management; or
 - (9) Sell apiculture products as organic if they contain a residue of a prohibited material greater than 5 percent of the Environmental Protection Agency's tolerance for the specific material, pursuant to § 205.671.

Amendments to the National List

The Working Group discussed materials specific to beekeeping. It is noted that some materials specific to beekeeping will be required to be petitioned for inclusion on the National List.

The Group does not believe that oxytetracycline or terramycin should be approved for use in organic beekeeping. Antibiotics are not permitted for any other type of livestock. Synthetic miticides are also not permitted.

The Group also believes that organic formulations of feed supplements are now available, thus non-organic feed supplements do not need to be added to the National List. This includes vegetable shortening and confectionary sugar. These products are produced organically at this time.

The Group also discussed materials used in the smokers. The Group agreed that synthetic materials in bee smokers are prohibited unless listed on the National List. The Group also recommends that tobacco be added to §205.604, Nonsynthetic substances prohibited for use in organic livestock production.

The following are materials the Working Group believes must be reviewed for appropriate status and petitioned for addition to the National List if necessary.

Formic acid
Thymol
Carbon Dioxide

The Group notes that there are several materials that are not recognized by the EPA for use in bees including Folic acid, Lactic acid and Oxalic acid for mite control. If these materials do receive EPA registration, the Group recommends they be petitioned for inclusion on the National List. Folic acid and Lactic acid should have the following annotations:

Folic Acid – for varroa mites, after last honey harvest; discontinue 30 days prior to addition of supers

Lactic acid – after last honey harvest; discontinue 30 days prior to addition of supers. The need must be documented and approved prior to use.