



THE ORGANIC FEDERATION OF CANADA NEWSLETTER

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## A challenging apiculture issue has been submitted to the review What would you decide?

Organic apiculture presents quite a challenge in our cold country: honeybees, which are not native to North America, need substantial energy reserves to survive Canadian winters.

The Canadian Organic Standard states that (7.1.11.1) “Organic honey and pollen shall be the primary food source for adult bees. Adequate food supplies shall be maintained in the colony, including sufficient food reserves for the colony to survive dormancy periods.

a) In the event of a feed shortage due to climatic or other exceptional circumstances, temporary feeding of colonies is permitted...”



In other words, beekeepers should not supply sugar to their bees every winter.

The Standards Interpretation Committee (SIC) received many comments after reminding organic beekeepers of the restrictions of clause 7.1.11.1 under the SIC public comment launched in December 2019.

In fact, the [SIC answer to question 474](#) has caused an outcry: it appears that a significant number of organic beekeepers are feeding sugar, often non-organic sugar, to bees every winter. Their understanding of the standard is that Canada's harsh winters create recurring “exceptional” weather conditions and that sugar is essential for bee survival. Some have stated that they would drop certification if feeding bees with sugar every winter was prohibited. As the review of the standards is underway, the OFC has decided to submit the

### **Supporting the review of the Canadian Organic Standards is your best business decision**

The organic standard has an impact

- on modes of production,
- on crop inputs,
- on the care provided to livestock and livestock welfare,
- on ingredients in processed food,
- on cleaners and disinfectants used in all operations,
- and on so much more.

**All organic certified operations are affected by the organic standard**

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to allow OFC to complete the review work**

OFC has fundraised and received support from [11 generous sponsors](#).

**We have raised \$36,000 but we need an additional \$10,000 to complete the review.**

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issue of bee feeding to the Apiculture Working Group. The WG has been asked to make a recommendation to the voting members of the Technical Committee who will meet in March.

The list of pros and cons is interesting. The following is a summary of the comments:

- In much of Canada, the foraging season is short and the dormancy period is long. A large proportion of the summer honey crop would need to be used as a food reserve for the dormancy period.
- Conventional beekeepers derive 50% to 70% of their income from renting out their hives. Organic beekeepers cannot rent their hives because of the widespread industrialization of agriculture and the inherent risks of contamination. It is already difficult to comply with the 3-km buffer zone required by 7.1.10. Honey and its by-products are therefore the only source of income for most organic operators.
- Feeding with sugar enables operators to sell honey instead of leaving it in the hives. Feeding sugar also makes it possible to compensate for the hazards caused by climate change to which bees are sensitive, such as dramatic temperature swings.
- Many organic beekeepers are in the isolated regions of the north of the country because it is difficult to respect the 3-km buffer zone in more southern agricultural areas. These northern regions with few monocultures and high biodiversity often have harsh winters, so it is particularly important to ensure that bees have adequate sources of easily metabolized energy to survive the cold in these areas.



- When there is a mid-winter thaw (a more frequent occurrence as a result of climate change), the bees become active and consume their food reserves more quickly. However, beekeepers cannot open the hive during dormancy to check the condition of the food supply because this will disturb the bees and increase the mortality rate.
- Certain beekeepers have observed that sugar appears to be more suitable for the digestive metabolism of dormant bees which cannot go on winter cleansing flights because of the cold. White sugar is a pure, residue-free source of energy which creates little intestinal waste. In contrast, honey, especially fall honey, is rich in minerals and micronutrients that can clog the intestines of insects and make them vulnerable to certain infections.
- Sugar gets bad press; however, some beekeepers consider that the practice of feeding sugar during dormancy to be harmless because bees are inactive and therefore less susceptible to the potential negative effects of sugar.
- Livestock production and beekeeping is done for the benefit of humans, while respecting the health and natural behaviour of the animals (including insects) as much as possible. We collect honey from bees, milk from dairy cows, meat from ruminants and eggs from hens.
- Some beekeepers have found that bees can survive on their own food supply (stored honey) and that feeding is contrary to the bees' natural needs. They select hardy bees and handle their hives in way that makes it possible for the bees to survive the winter on honey alone (either honey stored by the bees or summer honey which is reserved and given back to the bees). Other beekeepers feed a mixture of sugar and honey or use commercial or home-made fondants.
- When bees are fed sugar or fondant over the winter, this is used as food for the brood, which will grow into the bees that will collect nectar the following summer. The sugar does not enter the honey supply.
- Organic beekeepers who supply sugar have developed a particular practice that would be difficult to change radically in a short period of time; caution is needed as we are aware of bee mortality around the world. The various practices need to be compared and experimented with; implementing new

production methods takes time. All participants of the working group would like to see more researchers looking into the issue of bee feeding.

- The issue of the use of non-organic sugar was discussed at length. Certain beekeepers explained that non-organic sugar is more suitable for dormant bees because it contains less residue than organic sugar and produces less intestinal residue. More research is needed on this topic. In addition, beekeepers with more than 1000 hives state that there is not enough organic sugar processed into syrup on the market to meet the needs of their operations, which, as stated earlier, are often in remote locations. Commercial availability has yet to be confirmed.

The OFC will publish the recommendation of the Technical Committee after its last meeting in March.

To be continued...

