

ORGANIC BEEKEEPING IN THE UKRAINE

EVGENY RUDENKO
INSTITUTE OF ANIMAL SCIENCE,
KHARKOV, UKRAINE
rud_e_v@rambler.ru



INTRODUCTION

More than 3,5 mln of the bee's family and 400000 beekeepers are account in Ukraine. We produce about 70000 tons of honey per year. But organic apiculture in Ukraine make only first step in organic agriculture production, and we try to do these similarly to the principles EU regulation.

Total square of wild fields and low input farmland in Ukraine are more than 60 mln hectares that give the possibility to develop organic beekeeping in our country



REQUIREMENTS FOR ORGANIC BEEKEEPING (ACCORDINT TO THE EUROPEAN REGULATION EC834/07)

All apiaries have veterinary-sanitary passport in which are indicated special dates:

- Describe of apiary location and ecological monitoring results;**
- Results of veterinary laboratory investigation of the samples of honey, bee brood and adult bees and the results of veterinary management;**
- All sanitary measures (data of disinfection of the brood combs, hives and etc.);**
- Feeding of bee families for winter store and stimulation of the natural resistance and hygienic behavior;**
- Varroa control treatments;**
- Results of honey, wax production and their certification.**

APIARY LOCATION AND ECOLOGICAL MONITORING RESULTS



The area with is a radius of 5 km around the apiary covered by natural wild flowers or low input farmland with especially nectar produce plant (fruit garden, Sainfoin, Yellow melilot, Coriander, buckwheat, Acacia, Salvia, Lavander, Tilia, Echium, etc.) for bees feeding and honey production in enough quantity.

For ecological monitoring system of pollution bee products on each apiary from 3-5 hives beekeeper gathered pollen each 10 days and send to special laboratory for ecological investigation (heavy metals, pesticides), all results beekeeper received during 3-5 days.

In this area must be no major sources of pollution and a principle scheme of the apiary site and nectar producing plants must be present and point all sources of pollution (industry plant, auto roads, animal farms, etc.).



Results of veterinary laboratory investigation of the samples of honey, bee brood and adult bees and the results of veterinary management

- every year in spring from all bee's family veterinary doctor or beekeeper take off the samples of combs with honey and brood for laboratory investigation on the agents of AFB, EFB, Ascospheerosis, Aspergillosis; adult honey bees – for Nosemosis, Enterobacteriosis;
- all new bee's family placed in isolated apiary 7 km far from organic one, and only one year pass, after total veterinary investigation they place on organic apiary;
- On every apiary organize special drop-water system for bee drinking with clean natural water and one – with salt water (0,01% NaCl solution);
- On each apiary beekeeper have special daybook in which he point changing of the queen, data of sanitary measures, data and quantity of feeding bee family and etc., and present organic management plan



Results of veterinary laboratory investigation of the samples of honey, bee brood and adult bees and the results of veterinary management



- For organic beekeeping use only wax from frame, where brood did not growth;
- For wax production we put wax strip (20 mm) on the top of frame and put into hive, pass two-three days beekeeper take off these frames with combs for wax production;
- On organic apiary we recommend to leave honey combs (honey from flowers or another plants that guarantee high quality of honey in winter), but in August all beekeepers send the simples of honey for veterinary test at the laboratory for honeydew, and some agents of the diseases;
- In early spring for the bee family development it possible to use brood frame only after disinfection by 5% solution of Hydrogen peroxide or 0,5% solution of Peracetic acid.

Stimulation of the natural resistance and hygienic behavior of the honeybees



- In Ukraine beekeepers use such rise of bees:
- Carpathians rise of the honeybee;
- Gray Ukrainian rise of the honeybee;
- Caucasian rise of the honey bee;

All queen breeding apiary placed in reservation (in close area more than 7 km from another apiaries) in Carpathian, Crimea mountings and small peninsula in Azov sea – Fedotova Kosa;

In queen breeding for organic beekeeping we use special test for selection the bee lines with high hygienic activity and productivity, all queens receive passport and all results of using these queens are return on selection apiary from beekeepers;

In some case, for stimulation of natural resistance and hygienic behavior of bee's family we recommend in early spring period of family development feeding biological active preparation Apitotus.

Stimulation of the natural resistance and hygienic behavior of the honeybees



Apitotus include natural complex of polypeptides, aminoacides, microelements, fat acids (Omega-3, Omega-6) that increase lysozyme activity of royal jelly and in haemolymph of larvae and adult bees, phagocytosis activity of haemocytes and total development of bee family;

Apitotus also use in autumn period for preventive measures of bee loses and Varroa negative influence on bee family during wintering.



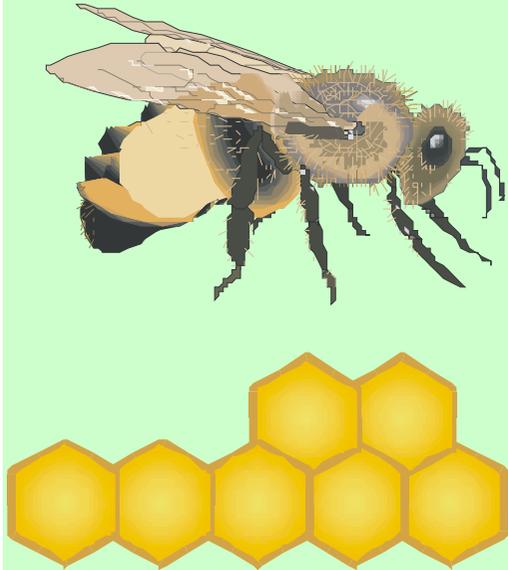
VARROA CONTROL TREATMENT

Veterinary service use special Instruction for control and prophylaxis of bee diseases (infectious, invasion diseases, toxicosis and noninfectious disease).

Varroa control treatment on organic apiary provide on such scheme:

- In spring (three weeks before harvesting) beekeepers use oxalatic or formic acid, thymol for diagnostic and control treatments;**
- In summer beekeepers use biological and technological methods (use special drone combs that after 6 days take off from bee family with brood and put them again without brood; during harvesting in bee family isolated queen and receive bee family without brood);**
- After honey extraction in August all beekeepers treated their bee families by oxalatic acid according to Instruction;**
- During spring and summer period beekeepers use special dry grass that have acaricidic activity against Varroa – Thymus serpyllum, Artemisia absinthium, eucalyptical or Abies sibirica oil, Gallic extract some etc.**

Conclusion



Ukrainian beekeepers provide Good Beekeeping Practice and HACCP principles for organic production of bee products. The Ukrainian agriculture have a big potential in organic production and in organic beekeeping particularly.

The Ukrainian beekeeping make first step on this way: at present time – five apiaries are being certified by IMO, according to EU 834/2007.

While one apiary has been already certified.

**APIMONDIA - 2013 in Ukraine must be held under the devise :
“BEEKEEPING FOR NEXT GENERATION”**