

DEVELOPMENT OF REARING BUMBLE BEES IN POLAND



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During over twenty years bumble bees became vital for greenhouse and orchard plants pollination. The demand for bumble bees colonies in Poland is mostly covered by import. Importing, although beneficial for agriculture, may cause damage to the native populations by introducing new pathogens and pests and distorting the gene pool of native species. Thus, developing domestic breeding farms basing on the native populations seems necessary.

First attempts of bumble bee domestication and rearing in Poland took place in Poznań in the 1960s but the results were unsatisfactory. The opportunity of developing bumblebees rearing from native material occurred, however, only after establishing methods of buff-tailed bumblebee rearing (first seasonal and then year-round) in the Apicultural Division of the Research Institute of Pomology and Floriculture (now the Research Institute of Horticulture), and excluding two species: *Bombus terrestris* and *B. lapidarius* from the strict species protection regime.

First commercial breeding farms were established in Poland as a consequence of conducting the course for breeders by the Apicultural Division and the Polish Ecological Club in Puławy, in 2002-2004. It was also the time of setting up the biggest Polish bumble bees breeding and rearing farm – Polski Trzmiel (Polish Bumblebee). Since last few year the Farm, in cooperation with the Apicultural Division, have been expanding the commercial area and the range of reared species as well as upgrading the equipment. Last year over few thousand colonies of buff-tailed bumblebee were reared and sold there.



The "Polski Trzmiel" Farm
– the building with the rearing rooms



The mating room for bumble bees
– the "Polski Trzmiel" Farm



Boxes with the buff-tailed bumble bee (*Bombus terrestris*) colonies – the "Polski Trzmiel" Farm

The buff-tailed bumblebee colonies reared in that Farm originate from the native population and are competitive against the imported colonies as they contain higher number of workers. Currently the Farm is working on rearing *B. lapidarius* colonies.

In recent years, within the Long Term Programme financed from the resources of the Ministry of Agriculture and Rural Development, courses for buff-tailed bumble bee breeders have been conducted. Because of continuous interest, next course is planned for this year.

The courses included the theoretical part – bumble bees biology, and the practical part - referring to the technical aspects of the captive rearing of the buff-tailed bumble bee. Each participant received two colonies reared in the Apicultural Division for further rearing. The colonies were at the initial phase of development (the queen and from few to dozen or so workers). The participants received also honeybee pollen loads and preserved sugar syrup to feed the colonies.

During three years about 50 participants attended the courses. Obviously, not everyone established own bumble bees rearing farm. However, the level of involvement of almost 10 people allows to think that they will engage in professional bumble bees rearing and breeding.

Rearing farms established by the participants allow to assume that in near future the demand for bumblebees will be met by Polish breeding farms basing on native material.

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The buff-tailed bumble bee colonies
in the commercial boxes – the "Polski Trzmiel" Farm



1st course for bumble bees breeders – Puławy 2002



2nd course for bumble bee breeders
– visit in the "Polski Trzmiel" Farm



4th course for bumble bees breeders – Puławy 2013
– the introductory lecture



4th course for bumble bees breeders – Puławy 2013
– the practical classes