

FEEDING THE BEES IN THE SPRING PERIOD

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The development of new treatments that stimulate the growth of bee families and contribute to increased productivity is important for the extensive development of the beekeeping industry. New-generation natural biostimulants are becoming increasingly important due to the search of growth stimulants for bee families and increasing their productivity making it an urgent problem.

The problem lies in expanding the range of biologically active, natural, environmentally friendly, stimulating substances that will increase the effectiveness of food supply in strengthening the immunity, vigor, reproduction, and productivity of bee families.

The aim of this research is to study the effect of the biostimulant CobalRibo on the growth, early development and productivity of bee families applied in bee feed during the spring period in the absence of a maintenance honey crop.

Four batches of bee families, three in each, were formed to carry out the experiment, following the principles of the analogy methodology in terms of honeycomb number, vigor, brood number, and the amount of honey in the hive. The bee families were given one liter each of a 1:1 mixture of sugar syrup with biostimulant - batch I - 2.0 ml/l, batch II - 3.0 ml/l, batch III - 4.0 ml/l, batch IV (control) - pure sugar syrup in the absence of a supporting honey harvest during the springtime. The biostimulant was represented by an aqueous solution of Hexaminecobalt (III) chloride and glycoside rebaudioside A.

The stimulant spring feeding increased the prolificacy of the queen bees and the number of the young brood by 7.92-24.03% compared to the control group.

The bee families of experimental batch II stored on average 34.1 kg honey, or 6.9% more than the the control batch IV, taking into account difficult climatic conditions.

During the spring period, stimulating bee supplementation with a mixture of 50% sugar syrup and a biostimulant of 1.0 liter per bee family every 6 days increased bee reproduction by 24.10% and honey production by 6.9%.

Feeding bees in the spring period, from April to the first harvest, with a mixture of 50% sugar syrup and 3.0 ml/l of CobalRibo biostimulant in the amount of 1.0 liter once in 6 days provides increased fertility rates of queen bees, brood number and honey productivity.

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