

There are some pieces of his advice for a bright beginning of one's speech: announce the name, the organization we are from, the topic of the report, useful and new information people will learn after the presentation.

How to make first steps to an efficient speech:

1. Make a short plan.
2. Add illustrations and examples.
3. Never learn your text by heart.
4. Tell funny stories.
5. Say "we" instead of "you."
6. Enjoy your performance.

And the last important thing is the magic recipe of a dynamic presentation:

- 1) A case from real life.
- 2) Action.
- 3) Benefit.

That is the guidance for a productive and successful speech from one of the best developers of interpersonal communication tips Dale Carnegie, which once helped the author of the present report to overcome her shyness and feel confident on stage.

To sum up, the contributor has reason to believe that the recommendations given come in useful for a most wide range of readers who need to speak in public.

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ANALYSIS OF BREEDING VARROA-RESISTANT BEES

Lyudmila Kruglova, 4th year student, Faculty of Animal Science and Biology, RSAU-MTAA

Summary: *High costs, time consumption and hazards, as well as environmental damage, of chemical and thermal (heat treatment) methods of controlling honeybee varroaosis are growing over its efficiency. The method of breeding bees resistant to varroaosis has an advantage of being safer for the insects and cheaper for beekeepers. This article presents a review of anti-varroa traits that are bred in bees and sheds light on a project dealing with it.*

Key words: varroatosis, breeding, *Varroa Sensitive Hygiene*, pupae, brood, honey bee, wax bee, *Varroa mite*.

This paper presents a review of a number of articles and other information resources on varroatosis in honeybees and ways to control it. The obtained info about the varroatosis agent –*Varroa destructor* mite – gave me a chance to contemplate on the efficiency of different methods of extermination provide.

Varroa destructor – is a honeybee (*Apis mellifera*) parasite mite, which is spread in almost every area where beekeeping exists. *Varroa* is characterized by its versatility: not only does it parasitize on adult bees, but also the brood is infested. The mite feeds on the imagoes' hemolymph during winter season and while getting into the brood cell. Once the larva is almost fully grown, short time before it is closed by a worker bee, an adult *Varroa* enters the cell and stays there until the cell is left by a newborn bee. During the period the larva develops into a pupa and then into an imago, the female mite lays a few eggs producing more mites. Along with their mother young Varroas feed on the developing bee's hemolymph, causing it great harm. As a result, we get an unhealthy, useless generation of bees which are unable to fulfill their roles in the bee s family [4].

Therefore, it becomes obvious that only a part of *Varroa* mites parasitize on adult bees. There are some ticks safely closed in brood cells and protected from unfavorable conditions.

One of the ways to control *Varroa* mites is using acaricides – the chemicals that are applied in the hives to lower mite population. This can be quite dangerous for humans because the pesticide runs through a bee's body without hurting it but stays in the honey it produces. Chemicals in honey can affect its consumer's health negatively and even lead to severe poisoning. Also treating mites with pesticides is inefficient against the enclosed or immune ones and works only for Varroas infesting imagoes or staying open in the hive.

Another method is heat treatment of bees in special structures. It is quite dangerous and time consuming for the beekeeper and sometimes disastrous or even deadly for the bees. The insects very often can't withstand high temperature which leads them to death. Moreover, this is the way of controlling only the mites that infest adult bees.

As for breeding methods aimed at controlling *Varroa* mites, they became popular in the 1980s and 1990s. The fact that worker wax bees (*Apis cerana*), which were introduced into families of honey bees (*A. mellifera*), managed to clear the *A. mellifera* brood infested with the mite was discovered [3]. Wax bees have developed this ability really long ago: *A. cerana* families had been suffering from *Varroa jacobsoni* mite for many years until they had learned to deal with the invasion of these bloodsuckers.

Several types of honeybee behavior traits that contribute to the decrease in *Varroa* in the hive have been identified. The most illustrative one is the *Varroa Sensitive Hygiene*, bees with this behavior are easier than others to detect infected brood, print and destroy it (Figure1) [1].

Another behavioral trait is the mutual cleaning of bees. Insects clean each other and themselves of ticks and can injure parasites disabling them (for example, tearing off their limbs).

Also, the timing and conditions of bee reproduction influences that in the mites. Various changes in the time of swarming, pupae maturation, increase in the temperature in which the brood is kept - all these greatly affect the development and reproduction of *Varroa*, resulting in unviable or weak offspring.

Particularly pronounced anti-varroa qualities are demonstrated by bees of the Far Eastern breed: they function well when infected with *V. destructor* and do not require treatment.

Forest bees also have good resistance to varroaosis; they are able to maintain the family in good condition for about three years with no treatment.

Breeding is carried out between species of bees, between breeds and even between closely related lines [2].

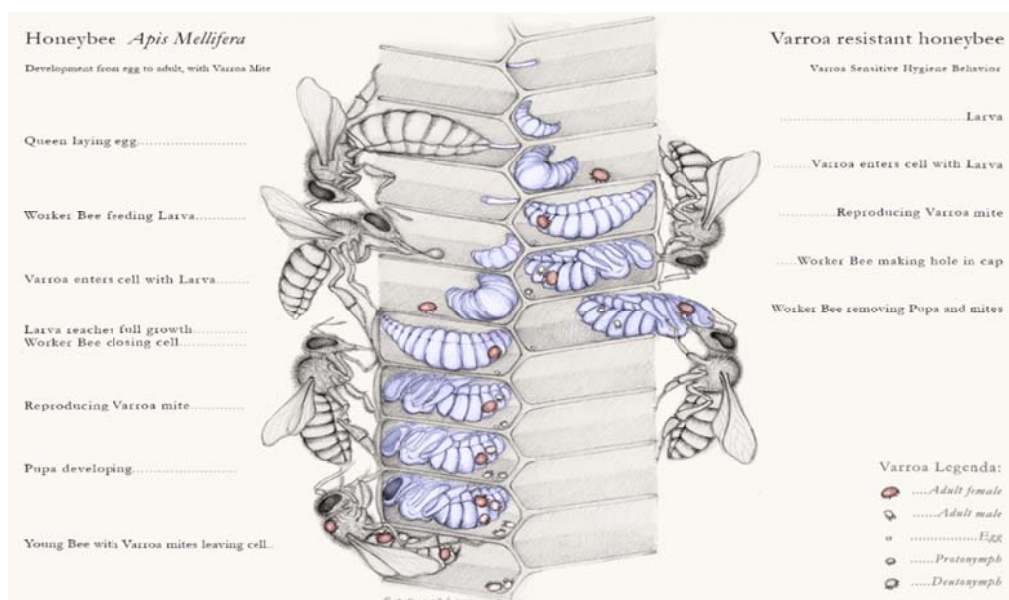


Figure 1. Difference between regular honeybee's behavior and Varroa-resistant one's.

The outstanding ability of wax bees to prevent the spread of *Varroa* in the colony should be noted. Modern beekeepers want to develop these abilities in honey bees, crossing them with wax bees.

Bee breeding project is carried out by Arista Bee Research - a foundation located in the Netherlands, which is aimed at controlling varroaosis. The main goal of the foundation is to breed bees that can independently resist *Varroa*.

The foundation is supported by donations and the enthusiasm of volunteers. Unfortunately, the time-consuming and controversial work of breeding honey bees is funded less and less willingly, so that industrially tangible results are difficult to find today.

Thus, it is possible to most effectively fight bee varroaosis with their own help, the issue is money and effort.

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АНАЛИЗ ДИСТАНЦИОННЫХ ФОРМ ОБУЧЕНИЯ ПО ДИСЦИПЛИНАМ ФИЗИЧЕСКОЙ КУЛЬТУРЫ И СПОРТА В РГАУ-МСХА

Поскрякова Екатерина Олеговна, студентка 2 курса института мелиорации, водного хозяйства и строительства имени А.Н. Костякова, ФГБОУ ВО РГАУ-МСХА имени К.А. Тимирязева

Научный руководитель – Никифорова О.Н., доцент кафедры физической культуры, ФГБОУ ВО РГАУ-МСХА имени К.А. Тимирязева

Хотеева М.В., старший преподаватель кафедры физической культуры, ФГБОУ ВО РГАУ-МСХА имени К.А. Тимирязева

Аннотация: В статье представлены результаты исследований по итогам дистанционного обучения в ноябре-январе 2020-2021 учебного года. А также изучены основные формы проведения занятий по физической культуре в период дистанционного обучения.

Ключевые слова: студенты, дистанционное обучение, физическая культура, спорт, освоение дисциплины.

Развитие научно-технического прогресса, рост объемов информации, компьютеризация, цифровизация и усложнение учебных и трудовых процессов на современном этапе влечет за собой необходимость в получении соответствующих знаний, умений и навыков [1,4]. Кроме того, в 2020 году появился еще один фактор, который изменил систему образования во всем мире – пандемия, которая значительно ускорила процесс информатизации образовательного процесса [2,3]. В РГАУ-МСХА имени К.А. Тимирязева система высшего образования имеет опыт внедрения дистанционных