**NOVA ISTRAŽIVANJA IZ OBLASTI TRETMANA PROTIV *Varroae destructor***

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Sažetak

Zdravlje medonosne pčele nije samo važno polje istraživanja, već je postalo sinonim za stanje našeg ekosistema. Neosporno je da na zdravlje medonosnih pčela sve više utiču pojedini stresogeni faktori: patogeni, dostupnost i kvalitet hrane, izloženost pesticidima i primenjena apitehnika.

Jasnoj proceni zdravlja medonosnih pčela, međutim, smetaju dve posebnosti. Prva je što pčela danas živi u divljim i gajenim zajednicama i to uzrokuje neuravnotežen odnos domaćin – patogen. U slučaju Varoe i pčelinjih virusa ishodi su neretko sa katastrofalnim posledicama. Pored toga, pčelarske prakse u osnovi sprečavaju razvoj prirodne selekcije prema takvim patogenima. Drugo, zdravlje pčela ne odnosi se samo na pojedine pčele, već na pčelinje zajednice. Patogeni i pesticidi deluju, prema tome, na nivou pčele kao jedinke i na nivou pčelinje zajednice što usložnjava određivanje pragova oštećenja.

Zato je danas gotovo nemoguće pronaći jedinstvenu strategiju zaštite od parazita *Varroa destructor* na globalnom planu. Ovaj rad je upravo jedna vrsta sublimiranog riporta o naučnim i stručnim nastojanjima da se iznađe rešenje za ovaj zasigurno najveći zdravstveni problem medonosne pčele. Dat je presek svih dosadašnjih istraživanja počev od hemijske komunikacije društvenih insekata i interakcije gubitaka pčela i hemijskih komunikacija koje moduliraju proizvodnju ili prijem feromonskih jedinjenja, preko interakcije između stresora i odbrambenih mehanizama pčele, pa sve do testiranja ekoloških i drugih preparata protiv parazita *Varroa destructor.*

**Ključne reči***: Varroa destructor*, medonosna pčela, tretman

**NOVEL RESEARCH REGARDING TREATMENTS AGAINST *Varroa destructor***

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**Abstract**

The health of the honey bee is not only an important field of research, but has become synonymous with the state of our ecosystem. It is indisputable that the health of honey bees is increasingly affected by certain stressors.

A clear assessment of the health of honey bees, however, is hindered by two peculiarities. The first is that bees today live in wild and farmed communities and this causes an unbalanced host-pathogen relationship. In the case of Varroa and bee viruses, the outcomes are often with catastrophic consequences. In addition, beekeeping practices basically prevent the development of natural selection for such pathogens. Second, bee health does not only apply to individual bees, but to bee communities. Pathogens and pesticides therefore act at the level of bees as individuals and at the level of bee communities, which complicates the determination of damage thresholds.

That is why today it is almost impossible to find a unique strategy for protection against *Varroa destructor* on a global scale. This paper is just a kind of sublimated report on scientific and professional efforts to find a solution to this certainly the biggest health problem of the honey bee. All previous research is given, starting from chemical communication of social insects and the interaction of bee losses and chemical communications that modulate the production or reception of pheromone compounds, through the interaction between stressors and bee defense mechanisms, to testing of ecological and other preparations against *Varroa destructor*.

**Key words**: *Varroa destructor*, honey bee, treatment