Implication of infectious agents and parasites in the Colony Collapse Disorder of the bee *Apis mellifera*

**INTRODUCTION**

The *Apis mellifera* bee is a pollinator with a very important role and it is indispensable for the growth of the productivity of some agricultural crops.

In the last years there is the worry for the increasing loss of *mellifera* bee colonies all over the world.

The CCD (Colony Collapse Disorder) is a sudden death of bee colonies and, in many cases, swarm abandonment.

**OBJECTIVES**

To make a bibliographical research and determine the causing agents associated to CCD.

To know the actual situation in Spain

**RESULTS**

The more evident causing agents regarding a relation with CCD are: *V. destructor*, *N. ceranae*, *N. apis*, *A. woodi* and the neonicotinoids.

In Spain, the prevalence of the *Nosema ceranae* mite has grown, transforming itself in one of the most implicated facts regarding the swarms depopulation.

*Varroa destructor* is also directly implicated with this syndrome, having a high prevalence of the korean haplotype in our country.

*N. apis* and *A. woodi*, being also contributive to the colony loss, don’t have such a relevant role as the previous ones.

**CONCLUSIONS**

Nowadays there are no unified conclusions about what exactly causes the decrease of *mellifera* bee population.

There are evidences of some causes that are directly implicated with this syndrome, but couldn’t have been concluded as a unique or indispensable causing agent.

The world phenomenon of massive bee colony loss is, probably, caused by different factors that produce similar symptoms through synergistic actions between different agents.