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Do you remember one of the many (and hired?) bombastic announcements made by American and Spanish researchers (with NASA!): "the bees crisis is due to the action of an intestinal parasite, the nosema"?

Independent and public scientific research now puts to rest the many "half-truths to conceal the reality":

another new and [independent scientific study](#) confirms the synergistic effect of systemic insecticides in infinitesimal "sublethal" doses, which increase the deadly effects of Nosema, a serious intestinal bee disease.

So much so that man's agricultural activity is to blame, in particular in countries with a "modern agriculture", for the decline of bees.

The phenomenon has been baptized in the U.S. as CCD (Colony Collapse Disorder), and should perhaps deserve a more appropriate definition like CCHD (Colony Collapse Human Disorder).

See review about the scientific study published by [L'Apis No.8 / 2011](#) .

The conclusions of this study provide once again the evidence of how, as a result of disturbance made by man, we can observe the devastating effects on the environment, in particular on bee colonies.

Nosema is an opportunistic pathogen that in certain environmental contexts may be present in all hives, and it can multiply and cause the death of a hive if the bees' resistance and resilience is not high.

The research concludes that the interaction between nosema and insecticides constitutes a significant risk to the bees' health.

It is easy to imagine that higher and repeated contamination may have more dramatic consequences for the hives.

The research confirms the more than worrying results of a [similar study made in 2010](#), also by INRA in Avignon, France, which compared the effects of imidacloprid on bees in good health and bees affected by nosema.

The deadly interaction between pesticides and parasites for invertebrates is not a new discovery, and it has already been studied and implemented in pest management.

In 2007, Professor **Joe Cummins**, from the Institute of Science in Society, [published a dossier](#) about how the interaction parasite-pesticide is used in the control of pest insects. Among the major associations, we recall:

- sub-lethal doses of ***Beauveria bassinia*** and **imidacloprid** are used to combat rice leafhopper;
- an effective method, included in integrated pest management to control the sweet potato whitefly, is to use **sub-lethal doses of imidacloprid and the fungus *Leocanicillium muscarion***;
- against termites and ants one-tenth the lethal dose of Imidacloprid associated with spores of ***Beauveria bassinia*** and ***Metarhizium anisopliae*** was effective,
- also the famous ***Bacillus thuringiensis***, a bastion of biological (organic) control of most plant parasites, **works 45 times better on larvae infected by *Nosema pyrausta*.**

The public authority has acknowledged the effectiveness of these synergistic pesticide-pathogen interactions and authorized their use in agriculture, but in assessing the degree of hazard for authorization of a molecule or a compound

, the public authority is limited to evaluating only a few effects, **focusing on those effects which generally are lethal just in a short time.**

Persistently ignoring synergistic effects and allowing molecules that are found to determine them, cannot be regarded merely as a "mistake" by the authorities.

It is natural to ask, in a framework so alarming for the bees and the environment in general, why such measures are adopted in the United States, the leading nation in the use of "innovative" agricultural technology (Bayer alone realized 772 million dollars in sales in 2009 of

imidacloprid and clothianidin) and the country in which the CCD alarm has sounded and resonates most strongly.

A study about the interaction of nosema with pesticides was also conducted in the USA in 2008 by Dr. Jeffrey Pettis, lead scientist of the group created to study CCD by the United States Department of Agriculture.

This study discovered that the vulnerability of Nosema infection increase exponentially on bees simultaneously effected by imidacloprid, even at doses barely detectable.

The "strange" feature of this American research which shows that **"the interaction between nosema and neonicotinoid (imidacloprid) causes a significant weakening of the bee colonies," is that today after two years, it is not yet published.**

Dr. Pettis and other experts on the CCD, Dennis van Engelsdorp, from Penn State University, have spoken in a documentary about the bee die-off, created by the American filmmaker Mark Daniels, and afterwards they confirmed the results of the study, following the persistent investigation of an [English newspaper reporter from "the Independent"](#) .

There is so much evidence about the pervasive influence of the agrochemical corporations on scientific research which condition or even censor organs of scientific communication, which is certainly is not limited to the U.S. and its scientific research journals.

To learn more (text and video in Italian and English):

[From Wikileaks: confirmation of the sordid plot in the U.S. that protects Bayer](#)

[A review by the magazine LabTimes on the status of scientific research on the decline in bees](#)

[Another article by journalist Michael McCarthy](#)

[A comment from a reader of The Independent](#)



Video interview of beekeeper Theobald on the U.S. EPA / Bayer intregue which allowed permitting of a neonicotinoid with a systemic toxic effect. Text of the video in Italian.

{youtube}9ZSlgciB8lo{/youtube}

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