



The Buzz About Bees

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The European Commission recently organized an important conference in Brussels exploring an issue particularly dear to Slow Food: the health of the bees.

What is causing bees to die off worldwide?

In investigating the causes behind the recent inexorable decline in bee populations (known as Colony Collapse Disorder), two very different paths have been taken. One part of the scientific and institutional world, with the full support and encouragement of the agrochemical industry, has carefully avoided any link between the disappearance of the bees and the analogous loss of invertebrate biodiversity and pollinators in particular. Instead, they point to different pathologies as the cause: Varroa mites, Nosema parasites, viruses, etc. Independent researchers, beekeepers and environmentalists, on the other hand, have established and denounced the impact of new pesticides and the loss of floral biodiversity, which coincides with the increasingly wide spread of agro-industrial monocultures.

The inflamed confrontation, with few margins for possible mediation, has on the one side prompted more new scientific investigations, and on the other resulted in public policy decisions, like the temporary and partial European ban on the world's four most-used insecticide molecules. The scale, however, is tipping further and further, clearly indicating on which side the evidence, perhaps even indisputable proof, is mounting up. Indeed, the EU conference provided further authoritative responses to the crisis.

The European veterinary study **Epilobee**, based on a two-year study of 32,000 beehives in 17 member states, was presented. The study's conclusions exclude the possibility that the bee deaths have pathological causes. Winter colony mortality rates ranged from 3.5% to 33.6%, with significant variations between different countries and a higher mortality rate in the north. The research confirms that where there is a greater use of pesticides, the mortality rates of bee colonies are much higher. For example, mortality levels in the USA, where the use of pesticides is widely allowed, if not actively encouraged, are significantly higher than those of European countries, where more stringent regulations are in place.

At the same time, Greenpeace has published its own **study** which confirms that in a number of European countries, pesticides and herbicides are contaminating the main food of bees and other pollinators: pollen. The organization's study prompts us to reflect on the real impact of chemicals in agriculture, which are causing the pervasive and ubiquitous contamination not only of pollen, but also the water, soil and air. It makes us question the precision of the much-lauded "smart weapons," which kill not only pests, parasites and weeds but also the living beings essential to agricultural production. And it leads us to wonder about the extent of the damage that agricultural pesticides are continuing to cause and how it can be limited.

What do we lose if the bees die? What impact are agrochemicals having?

Often, when trying to assess the damage caused by pesticides, the danger to human health is put first. Or, at least, we tend to focus on this aspect. So if, years after it was first published, we re-read Rachel Carson's *Silent Spring*, or if for the first time we read Marie-Monique Robin's *Our Daily Poison*, the chapters dedicated to the risks of pesticides to our health are the ones that most immediately catch our attention. But this approach prevents us from having a holistic vision and seeing the negative impacts of the whole current food production process. The foods that make us sick are the same ones that pollute the soil, the water and the air and endanger the entire cycle of life and the very concept of fertility.

What is the solution? The buzz of alarm coming from the hives is at least leading us to the concrete possibility of a different way forward. The radical reform of the authorization processes for agricultural chemicals can allow us to better determine, preventively, the possible damage caused by molecules and chemical treatments. It is within this new landscape that urgent initiatives and proposals are continuing to develop.

The journey has started and there are hopeful prospects on the horizon. The European Food Safety Authority has already drawn up new criteria to better define the "acceptability of risk" for bees, and not only for bees. What is lacking now is the investment of resources that would allow the definition, verification and application of new types of tests that can predict the possible effects. Making sure pressure continues for the development of new and more effective precautionary procedures in regards to the actual consequences of releasing these molecules into nature is one of the great challenges for the future. Using the survival and productivity of beehives as a measure of the effective compatibility of agricultural practices can become a simple indicator of sustainability. Real sustainability, not just an empty boast.

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