

## Bees Disappearance issue: Do the EU Member States act?

Any politician would say "We have to do something for the bees!" But when it comes to really doing something, by suppressing or limiting the use of bee-harmful pesticides, reality is highly different between Member States. Up to now, only two classes of pesticides have been forbidden or limited to protect bees on the European level: neonicotinoids (imidacloprid, thiamethoxam and clothianidin) and phenylpyrazoles (fipronil). Therefore it is useful to analyse the Member States situation having a short journey through the different European national policies.

France has been the front runner on the issue of protecting honey bees (HB). Two main reasons can justify this fact: the first neonicotinoid ever put on the market in Europe is imidacloprid.

It was first sold as seed-coating insecticide for sunflowers in Western France in 1994. Beekeepers directly observed important die-offs and rapidly, beekeepers' unions organised protests to denounce the use of neonicotinoids insecticides.

Second, France beekeeping sector is traditionally a big industry and French people like their rural sector. Therefore, the first ban occurred in 1999, on imidacloprid use on sunflowers. Several bans followed (clothianidin, thiamethoxam) but unfortunately no full ban ever occurred. As neonicotinoids were still massively used (ex: thiamethoxam was still approved on maize until the recent EU-wide ban), HB colony die-offs still occurred.

The Italian ban was the most spectacular. After years of die-offs reaching more than 50% in some areas of the country and basing themselves on scientific measurements of neonicotinoids residues in dead HB, the Italian authorities have forbidden the use of neonicotinoids and fipronil for seed-coating in 2008. The following year, die-offs decreased to 15% (10% is considered to be natural mortality). The ban was renewed year after year despite enormous pressures from the industrial farming sector. Italian beekeeping sector's weight and mobilization have been useful to this success. And contrary to what conventional maize sector and pesticide industry announced, no maize production decrease was observed.

In 2008, an "accident' occurred in the Rhine valley in Germany. 10,000 hives died due to the use of clothianidin and dissemination of dust from seed improperly treated. The German authorities immediately announced a moratorium on the use of neonicotinoids but this moratorium was swiftly watered down and only maize use remained forbidden. The German authorities carried out an important monitoring project (Debimmo) but the pesticides residue analyses were not carried out from the beginning. Indeed, beekeepers' complaints permitted to include pesticides' monitoring late in the project but then pesticides' analyses were carried out by Bayer that was part of the project. As expected, no link between insecticides' use and morality where observed.

In Slovenia, many colony die-offs were also observed in 2008 and neonicotinoids were thus also forbidden as seed-treatment. Ban was suspended in 2009 and die-offs near treated crops occurred. A full ban was thereafter enforced. No more colony die-offs were observed after the ban.

In 2013, the European Commission, upon the scientific opinion of the European Food Safety Authority (EFSA) indicating a "high risk" of the use of neonicotinoids and fipronil has banned the three most harmful neonicotinoids (imidacloprid, clothianidin and thiamethoxam) as well as fipronil on an important amount of bee-attractive crops. In the ban regulations, the European Commission also mentioned that wider national bans were authorised. The ban will be reviewed in the light of available scientific data within 2 years of the ban.

In the meantime, Austria had an important national debate on the use of neonicotinoids. The Austrian vote against the ban at EU-level induced a governmental crisis and important consultations took place on the use of neonicotinoids. The Austrian government decided a broader ban: neonicotinoids would also be forbidden for several cereal crops and it would be maintained at least 3 years (whereas the European Commission would review its ban after only 2 years).

Furthermore, the Dutch court ruled that the Dutch board for pesticides authorisations (CTGB) has to take a decision on imidacloprid's uses, upon PAN Europe's request. Not only independent science points at imidacloprid for HB colony die-offs but scientific data also indicate huge contamination of surface water by this pesticide, far above the no observed effect concentration for water organisms. Final decision is still awaited but it seems that all imidacloprid uses will be forbidden.

Other countries did not take specific measures on neonicotinoids but in some, this insecticide has no national authorisation for bee-attractive crops. In some way, this protects HB but not solitary bees or bumblebees as mentioned in the EFSA report: soil-nesting insects as well as those using plant material treated with neonicotinoids could be exposed. Actually, the majority of solitary bees nest in soils. It is now well reported in the literature that diversity of pollinators increases yields and resistance of fruits against pests attacks. This is one of the reasons that led PAN Europe to bring the European Commission to the European Court of Justice in order to have a full ban on all uses of neonicotinoids.

Therefore, it appears that national policy to protect bees with regard to pesticides' uses is very variable. It depends on many factors: politics, importance of industrial agriculture in the country, importance of beekeeping sector, structuration of the beekeeping sector and its possibility to appear in the media, environmental concerns of the population, etc.

Some countries have a more precautionary approach: Slovenia banned neonicotinoids after only one year of poisoning whereas Italy has needed more time. Other countries like UK have industry-like message: there is not enough evidence to ban these products, more research is needed...

Unfortunately, in the majority of the cases, precautionary approach is not the rule. A lot of work is still needed to give this principle, even though it is laid down in the law, the importance it needs in decision-making process.