

POLLINIS

WHY BAN NEONICS?

Neonicotinoids are a class of neurotoxic insecticide that appeared in the 1990s to counter increasing pest resistance. They are the most widely used type of insecticide in Europe for most crops. Neonicotinoids have a broad spectrum effect—they kill all arthropods—and are classed as systemic pesticides: as plants grow, these pesticides are continuously transported via the sap into pollen and nectar.

NEONICS IMPOSE SYSTEMATIC PESTICIDE USAGE

Because neonicotinoids are sold almost exclusively in the form of coated seeds (the insecticide is inseparable from the seed), they leave farmers with no other choice than to treat their crops regardless of the presence or absence of pests.

This preventive and systematic use of neonicotinoids severely increases the resistance of pests to pesticides. As a result, there is an increasing need for pesticides, leading agriculture into a toxic spiral: chemical control / natural resistance.

There are already more than 550 types of pests which are resistant to one or more types of insecticides—including around 40 to neonics.

NEONICS BLOCK AGRICULTURAL ALTERNATIVES PROMOTED BY THE EU

The preventive and systematic use of insecticides contradicts the principles that have been developed for decades by agricultural engineers and by scientists within the agro-industry itself.

Neonicotinoids divert the agricultural world away from the principles of Integrated Pest Management (IPM) adopted by the European Union in 2009 (Directive 2009/128/EC). IPM requires that pesticides only be used in case of an established attack, in minimum quantities and in a way that is proportionate to the reality of the attack, using targeted and non-persistent products.

Crop protection specialists consider IPM principles crucial to monitor the development of parasites resistant to pesticides and to ensure **the sustainability of our agricultural production and the independence and food security of Europeans.**



With pest resistance to pesticides, the agrochemical industry will not always be able to provide a chemical solution to the problems it creates.

NEONICS DRAMATICALLY DAMAGE THE ENVIRONMENT

Only up to 20% of the active pesticide is absorbed by plants. The remaining 80% filters into the soil and flows into rivers and groundwater where they take years to degrade.

These residues accumulate in soil at rates often exceeding LD50 of the agriculture auxiliary insects (the rate at which a product kills 50% of the individuals in a population).

Neonicotinoids thus cause damage to non-targeted organisms—worms, moths, birds, and pollinating insects such as bees—in ways that we are only beginning to measure.

These organisms are essential to food diversity, quality and quantity.



Neonicotinoids are continuously transported via the sap into pollen and nectar.

NEONICS PUT OUR FOOD CHAIN PRODUCTION AT RISK

The current agricultural system, built upon pesticides, **is not ecologically sustainable**. Pesticides have, paradoxically, significantly increased the risk of disease and pest outbreaks by promoting simplified, homogeneous and fragile crops in which pollinating and auxiliary insects are gradually eradicated.

This system relies on a downward spiral: ever more toxic chemicals increase pest resistance. The dramatic consequences of current agricultural practices on the ecosystem are known and extensively documented.

This system is not economically sustainable: exorbitant public subsidy, increasingly expensive chemicals, farmers' dwindling income, etc.

In addition, **this system assumes an unlimited access to chemical solutions**. However, crop protection experts believe there is a strong risk of ending up with no chemical bulwark to eliminate resistant pests for three reasons:

- 1. Rising pest resistance to pesticides.**
- 2. Health and environmental protection legislation** reducing the available legal chemical arsenal and limiting the scope of agrochemical research.
- 3. The cost of developing a new molecule has risen from EUR 30 to 270 million since 1980.**

The agrochemical industry will not always be able to provide a chemical solution to the problems it creates. This flaw reveals the great vulnerability of the current agricultural system.

IT'S TIME TO SWITCH TO NEONICOTINOID-FREE AGRICULTURE