

Tackling Europe's bee decline

The role veterinarians can play



Federation
of Veterinarians
of Europe

Bees : minute animals, massive importance

Bees have a lot of responsibility on their tiny striped backs.

Their main job is to carry pollen and nectar between plants and crops so they can reproduce and grow, to feed the billions of people in the world. They also produce €140 million worth of honey each year for

the European Union (EU) alone, as well as products like beeswax – used in food, pharmaceuticals and cosmetics.

A world without bees would be a world with less environmental biodiversity and far fewer agricultural products.



01 Bees: produce food

Of the 100 crops that provide 90% of food for people worldwide, 71 are pollinated by bees. Without healthy bees, people risk losing many vital foods from their diets. These include apples, broccoli, melons, honey and nuts.

But that's not all. Many animal species depend on these crops to survive too. Less food for animals could lead to lower numbers, and animal product shortages.



02 Bees: bolster the economy

Bees' work making honey and other hive products, and pollinating crops for farmers and food companies, is estimated to contribute at least €22 billion each year to European agriculture.

The fewer healthy bees there are, the more farmers and other food producers will struggle.

03 Bees: maintain biodiversity and help to prevent climate change

Without bees, many plants throughout the world, with fewer means to reproduce, would decline, contributing to global warming. With no food with to survive, animal species would suffer too.



Bees are vital for people, the economy and the planet: we must protect them

Bees under threat

For the past 10-15 years, European beekeepers have been reporting weakening bee numbers and colony losses, particularly in France, Belgium, Switzerland, Germany, the UK, the Netherlands, Italy and Spain.

Reasons for the decline are multifaceted, and probably interlinked. They include:

- Varroa destructor, a mite that first appeared in the 1960s in Eastern Europe, and can wipe out entire bee colonies when left untreated
- Viral, bacterial and parasitic diseases and fungi, including foulbrood disease (AFB), European foulbrood (EFB) and nose mosis (particularly *N. ceranae*)
- Pesticides (especially neonicotinoids) when used irresponsibly, and intensive agriculture production systems



- Poor agricultural practices
- Poor beekeeping practices
- Not enough veterinary medicines are available for bees, so bee keepers have to resort to unauthorised products. These include medicines sold without prescription or proper advice on their use, which can cause residue in honey.

Given the huge importance of bees, Europe must address these problems urgently – or face disaster.



Saving bees: veterinarians must work with beekeepers



In most countries, veterinarians' interest in bees has been waning over the past few decades.

Non-professional beekeepers manage two thirds (67%) of the EU's 15 million hives. Often, they deal with disease themselves, without any veterinary input.

To stop further bee decline – and further losses to the economy and the environment – this must change.

Veterinarians need to work closely with beekeepers and beekeeper associations to make sure bees get the right care. Policymakers in Europe must support this.

Reversing the bee decline: FVE's recommendations

01 Allow veterinarians to control drugs

Many viral, bacterial and parasitical pathogens threaten bees. To keep diseases under control, the right veterinary medicinal products (VMPs) are needed, prescribed by veterinarians who can make sure they're used correctly and monitor any adverse effects.

But in many European countries, there are no clear regimes to regulate VMPs, and beekeepers don't have to have prescriptions to use them. Sometimes, beekeepers use chemicals like acids bought from paint shops instead of proper medicinal products.

This leads to improper and ineffective disease control – with potentially dire consequences.

Not only can infections spread unnecessarily, without careful control, diseases can become more and more resistant to treatments, rendering VMPs less effective the next time there is an outbreak.

Furthermore, lack of control could lead to residues of harmful miticides (used to kill varroa destructor) ending up in products bees help produce, like honey. These traces could harm people, leading to a public health issue.

If all VMPs required a veterinary prescription, we would have a healthier bee population, producing safer food.

02 Avoid antibiotics

Antibiotics are not a successful treatment for all bee diseases. The more they're used, the higher the risk of antimicrobial resistance, and the less effective they become.

Despite this, some beekeepers continue to use antibiotics, especially to treat foulbrood disease. They often do this in breach of regulations and against antimicrobial use good practice principles.

Legislators should discourage the use of antibiotics to treat bees, regardless of the disease.

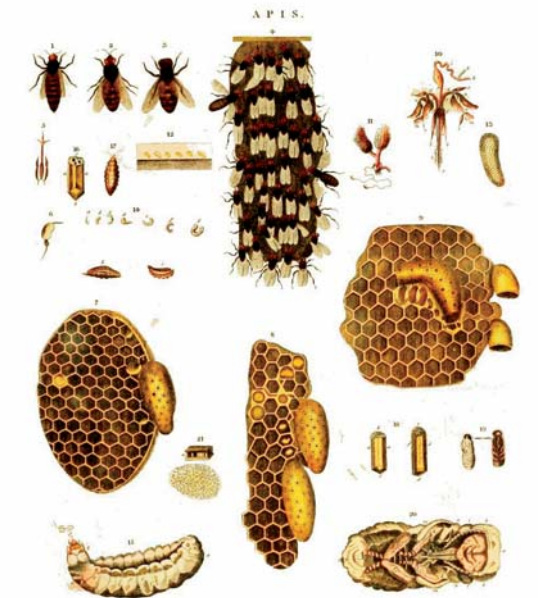
03 Make VMPs more widely available

Some useful miticides aren't on the market in some countries. For example, in France, oxalic acid is not available to purchase for the treatment of bees.

EU legislators should make it easier to register VMPs for use throughout the EU, so effective products are

available to improve bee health in all countries. Legislators should prioritise a single market for bee medicines.

04 Promote better training for veterinary students



Courses on bee health are few and far between at most European universities. This needs to change, so veterinarians can increase their vital role in bee health in the future.



We urge institutions to introduce undergraduate modules into veterinary degrees on subjects such as honeybee biology, pathology, pharmacology and good practices in apiculture. All veterinarians should have comprehensive skills in the basics of pathology and therapy.

We would also like to see dedicated postgraduate courses in bee health for veterinarians, covering topics including the role of pollinators in agriculture and maintaining biodiversity, good beekeeping practices, EU Legislation on honeybee health and trade, and VMPs for bee disease.

At present in Europe, there is only one postgraduate diploma in bee health available (in France). There is also a masters course in bee pathology in Italy.

05 Temporarily ban neonicotinoids

We believe scientific evidence exists showing neonicotinoids (a type of insecticide used on crops) may cause harm to bees and the environment. We support the temporary ban on three neonicotinoids (clothianidin, imidacloprid and thiametoxam), set to come into force in December 2013.

We also urge the European Food Safety Authority (EFSA) to investigate other factors which may be causing bee decline, including the quality of the water available for bees to drink and the risk of exposure to dust in the autumn.

About the Federation of Veterinarians of Europe

The Federation of Veterinarians of Europe (FVE) helps veterinarians across Europe do their valuable work to the highest standard possible – so they can effectively protect animal and human health.

FVE is an umbrella organisation of veterinary organisations from 38 European countries representing more than 200,000 veterinarians in Europe.

- We lobby politicians, institutions and NGOs, representing our members' views and influencing them to make the right decisions for veterinarians, animals and people.
- We support our members to do their jobs more effectively, providing information, make sure training is of the highest possible standard, organising discussions and forums and developing standards for the profession.



The end result?

Better animal and human health – and more satisfied veterinarians – across Europe.

In numbers: bees in Europe

Beekeepers in the EU: 700,000

Bee hives in the EU:
15 million (Spain has the most, with 2.7 million)

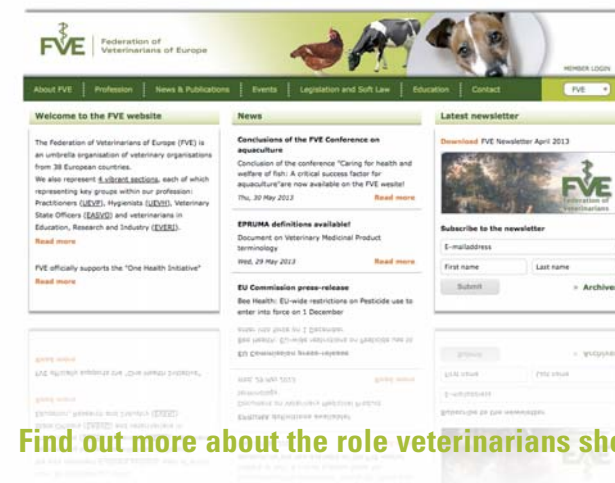
Bee species in the EU: 1,000

Value of honey produced in the EU: €140 million

Value of bees for European agriculture: €22 billion

Value of bees worldwide: €153 billion

Money committed by European Commission to research bee decline: €3.3 billion



Find out more about the role veterinarians should play in bee health on our website, www.fve.org



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