

Submission to Department of Agriculture concerning the review of the regulations for the Farm Payment scheme from the Federation of Irish Beekeepers' Association

Summary

The Federation welcomes the proposed apiculture programme to support research actions and consideration of hedgerow management an eco-scheme measure.

However, the Federation suggests

1. The 'Native Irish trees' restrictions are expanded to include some commercial trees that have been naturalised on this island over the centuries, including Lime, Chestnut, Maple and Plane.

These trees are critical for our biodiversity and bee life. The demise of the Elm and Ash make this change in the named trees specified in the regulation even more critical.

The 3 most significant National NGO's in this scientific area have come together to recommend this change to the proposed Department of Agriculture policy. These are the Tree Council of Ireland, the Society of Irish Foresters and Crann. Hedgerows Ireland is also supportive of our proposal.

2. Establish standards for maintenance and optimisation for farming, biodiversity including apiculture and carbon sequestration.

Provide incentives and enforce sanctions on poor behaviour.

3. Encourage beekeeping as a complementary income source on farms.

Introduction

The Federation of Irish Beekeepers' Associations suggests that the farm payments be directed to encourage and support the creation of a more bee-friendly and biodiverse landscape nationally.

In particular, there should be positive discrimination favouring more naturalised Irish tree species, *e.g.* Chestnut, Maple, Plane *etc.*, that provide nectar and pollen for bees and other vital insects. One mature Lime tree is worth a hectare of ground for honey bees.

Hedgerows

Diverse planting of bee loving hedging from native stock, should be selectively rewarded to encourage optimum results. Nature requires variety and a seasonal supply of nourishing food sources. Seven to 12 different complementary species per 100 m of the hedge. These include crab apple, cherry, damson, elderflower, guelder rose, holly, hawthorn, spindle, blackthorn, dogwoods, honey-suckle, buckthorn *etc.* These species can be topped off at 3 meters with occasional trees being allowed to grow to their full potential as specimen trees.

Credits and penalties are necessary to achieve best-practice standards in hedgerow management. Maintenance should include a three-year clipping rota that allows most of the hedge to bloom and fruit annually. Rejuvenating established hedges and gap-filling exercises are opportunities to introduce additional high pollen and nectar-producing species. For optimum payment, hedges should be 3m high plus have occasional mature specimen trees. National guidelines and standards are urgently required.

Benefits of well-managed hedgerows that have been grossly underestimated by many advisors.

1. Hedgerows provide valuable shelter for animals and crops. The impact of wind and exposure is significant.
2. The root system and the associated fungi will deliver fertility to commercial crops in their vicinity. Carbon capture in adjacent soils and nutrient delivery vectors are concepts that will be more valued in future by farmers.
3. Birds like to nest 2 m from the ground, unavailable to the fox and hidden from the hawk.
4. Increased transpiration of water due to extra foliage helps to dry saturated land.
5. Significant extra carbon sequestration above and below ground with additional humus etc.
6. Average land temperature is increased due to reduced wind chill, resulting in earlier and later grazing opportunities and reduced costs for animal husbandry enterprises.
7. Reduces Water stress on grass and fodder crops, and the role of trees & shrubs in delaying run-off and reducing flash flooding is only now being appreciated.

'Nature England' is implementing plans to increase hedgerows in England by 40% to benefit livestock, birds, bees and biodiversity.

France has committed to increasing their hedgerows by over 7000 km of new hedges by 2027 as part of their Green Deal.

Micro-forests and dedicated nature land

Other features that deserve consideration for support payments are micro-forests and small areas of land dedicated totally for nature in each town-land.

Every farm has locations that suit integrated constructed wetlands, shelterbelts and awkward patches where small groves of valuable bee-loving trees can be grown and managed.

Provision should be allowed to operate 'Smart Farming' methods that involve farmers working more closely with nature to benefit biodiversity. We must learn to enjoy our native wildflowers in areas that do not impact on productivity.

Management of spraying

Certain practices should be prohibited on farms participating in Pillar 1 and 11 AECMs

1. Herbicide use on the bottom-of ditches and hedges. This interphase area is critical for the survival of wildlife and essential for sustainability.

2. Herbicide use on edges and centres of farm roads, tracks and other locations. These areas are essential for dandelions, primroses, daisies *etc.*, which are crucial food sources for insects at critical times of the year.
3. New controls on overuse of pesticides and their selection and management are required.

The role of apiculture in sustainable Irish food production.

1. Economic

Historically Ireland was a significant exporter of honey. It can be again in a new 'Green Deal' environment. Pollinators and bee numbers are currently declining due to intensive, chemically driven monoculture farming practices, lack of biodiversity, and poor management of hedgerows, meadows, and woodlands.

However, introducing

- Clover as a replacement for nitrogen.
- Biological control of pests instead of pesticides improved biodiversity.
- Selective planting of bee-friendly trees and hedges.
- New respect for a synergistic environment where food producers work with rather than against nature,

Such measures will create better opportunities for bee population regeneration and the apiculture economy.

Today's beekeepers could produce much more honey. Many thousands of new beekeepers could be attracted to the apiculture industry if appropriate policies were included in the 'Green Deal' agenda. Other pollinators will also benefit yields for food producers and result in a healthier environment.

2. Environment / Climate Change

Bees are sentinels of environmental health as they are susceptible to changes in the landscape. They are essential pollinators that significantly affect yields in food production.

As we plant more trees for commercial timber and carbon sequestration, informed species choices will result in benefits for biodiversity and bees. The Chestnut, Lime, Maple and Plane trees are of significant commercial value and are excellent pollen and nectar sources for bees.

The correct maintenance of hedgerows helps address climate change issues while adding significantly to the flora that support bees and honey production.

Integrated Constructed Wetlands can play an important role in wastewater purification and a haven for biodiversity resulting in a good source of nectar and pollen for bees.

Reanimation of wild areas in strategic locations can help manage water during periods of floods and droughts.

Micro-forests (ca.100 sq m), constructed wetlands and buffer nature corridors protecting watercourses are ideal locations for planting a diverse range of bee-loving trees, shrubs, herbs, and flowers improve biodiversity and supports a wide range and pollinators. Such developments deserve official support.

3. Social

Community Apiaries are feasible in every rural village in Ireland. These social enterprises can be a new source of income and produce a 'terroir' speciality food that adds value to local tourism.

Multigenerational family farms are the ideal base for a new expansion in apiculture. The craft of beekeeping can involve family members and become a significant new source of sustainable income for farming families.

Beekeeping is a social undertaking that requires shared values and collaboration between stakeholders and the wider community.

The growth of voluntary conservation areas (VCA) and queen rearing groups to conserve the Irish black bee are a great example of social empowerment delivering on a heritage issue.

4. Naturalised Irish bee loving trees and shrubs

The permitted tree species should be expanded beyond 'Native Irish Trees' to include important commercial trees that have been naturalised in Ireland during the last millennium. These tree species are essential in our landscape and should continue to be an element in any land-use plan. If this issue is not addressed, the consequences will be damaging for bees and other pollinators and the commercial future of beekeeping in Ireland.

We should appreciate the value of bees to the environment which would be limited and may be unviable without a wide range of tree species, especially since we have only a limited range of natives compared with the rest of Europe and two of our most important are endangered or missing (Ash and Elm)

Buffer areas are urgently needed to protect our streams and rivers from nutrient runoff to water. These areas are ideal opportunities to plant a diverse range of bee-friendly trees, shrubs, herbs and flowers. These developments create three dimensional nature corridors that add greatly to biodiversity and nutrition for bees, if suitably planted and managed. An integrated approach is required to optimise the commercial and the ecological benefits.

5. Heritage, hedgerow management, biodiversity and a bee-friendly landscape

Many of our ditches and hedgerows are part of our archaeological and architectural heritage and are valuable environmental assets, as outlined above. Hedges in Ireland can be 800 years old and where properly managed, add greatly to the ecosystem and biodiversity above and below the ground.

It takes more than 50 years for a new planting to evolve into a fully operational heritage hedge. In a recent two year survey, it was established that 2,070 different species were recorded either living in or visiting a 100 m of a heritage hedge.

Multi-species swards can be particularly supportive for bees. White clover produced significant honey flows in Ireland before the 1970s but declined when nitrogen fertiliser use increased.

Reducing nitrogen's input as an eco-scheme measure will be beneficial for beekeeping and honey production.

The illustration below demonstrates the benefit of pollinators and indications on reducing the use of chemicals in food production.

The ecosystem services of hedgerows

These living fences do much more than demarcate field boundaries and contain livestock, ecologists are learning.

HOME FOR WILDLIFE

Hedges can provide a year-round habitat for hundreds of species of plants, animals and fungi.



PEST CONTROL

Hedgerows attract birds and insects that prey on crop-devouring critters.

NAVIGATIONAL GUIDES
Bats and moths use hedgerows as spatial cues to navigate across landscapes.



MOVEMENT CORRIDORS

Some mammals and invertebrate species have been spotted using hedgerows to travel across agricultural areas.

POLLINATOR ACCESS TO CROPS
Wild bees residing in hedgerows can pollinate crops in the vicinity, generating financial benefits to farmers.



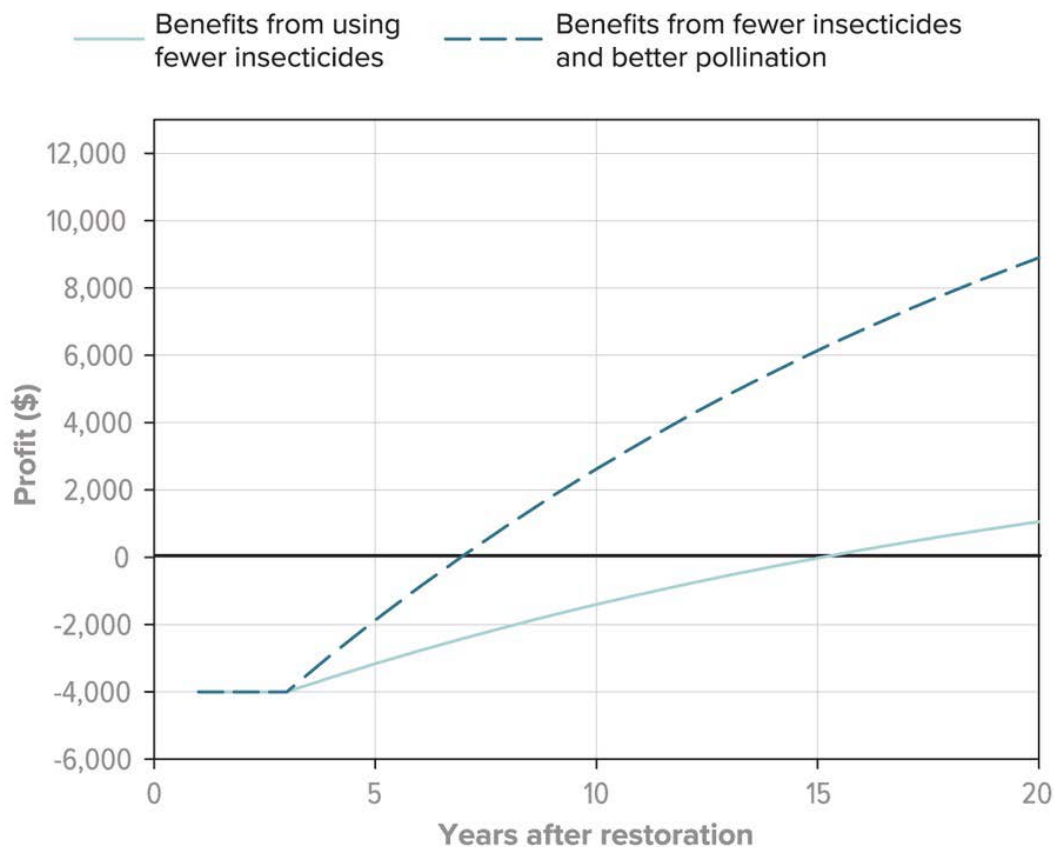
CO₂



CARBON SINKS

Hedgerows suck carbon out of the atmosphere, helping to reduce agricultural emissions.

The value of a hedgerow



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Conclusions

Beekeepers in Ireland are fully supportive of the EU new Green Deal agenda and view the initiative as an opportunity to halt the decline in biodiversity, water quality, bird, fish and insect life, including number of bee colonies. Our aspiration is for a cultural change among the public and the farmers who are the 'guardians of our landscape'. Appropriate policies and enforcement can recover lost habitats and deliver a healthier, more diverse environment that will benefit everyone.

The fundamentalist view of what should be defined as a 'Native Irish tree' in this context, should be challenged. We believe the current list of approved species for use in the Farm Payments and other support programmes are not appropriate for today or the future.

Experts in this area of science, tell me that there is no practical reason or rational argument why these bee friendly trees should not be promoted for use as specimen trees in hedgerows, mini-forests and buffer areas, protecting water course. We advocate that prejudice should not trump rationality. If our aim is to stop the decline in bee and pollinator numbers and introduce policies that

will improve the environment for Apiculture, then we must take steps to feed them. Our proposal is a solution.

Hedgerow management is important enough to be prioritised as an important heritage asset in all farm payments including pillar one. Best practice standards and data bases in relation to mapping hedgerows, need to be established and effective enforcement processes should be implemented with a sense of urgency and commitment.

The potential to produce more honey and to recruit a new generation of beekeeping farmers is a realistic proposition that has many advantages.

1. Bees are like the 'canary in the mine', a sensitive indicator of environmental health
2. The beekeeping farmer is environmentally aware and will influence his/her peers
3. Honey production can produce a significant additional income for farmers that could make them more sustainable.
4. Tourism will benefit from having unique honey products – a taste of the local landscape.
5. Ireland's reputation will be enhanced as a green, clean, producer of premium foods.

