

Increasing biodiversity on intensive farms

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Summary

- Wildlife measures designed and targeted for intensive dairy systems can play an important role in halting the decline of biodiversity and achieving the goals of sustainable agriculture.
- The quality of existing farmland habitats should be maintained or enhanced before new biodiversity measures are established.
- New biodiversity measures could be targeted to less-productive areas of the farm but should not replace existing wildlife habitats.

Introduction

Many farmland plants and animals are dependent on agricultural practices, and changes in these practices affect farmland ecology. Whilst there is a need to increase production to cope with increasing food demands, the environment and associated ecosystem services need not be compromised. Emerging research and policy agendas are now based on sustainable management of agricultural land.

Objectives of the FoodWise 2025 report and proposals under the new Common Agricultural Policy include the need for effective methods for biodiversity conservation, as part of the development of sustainable production systems. Incorporation of such measures could provide a very important contribution to the reversal of biodiversity decline; in addition, this can offer a branding and marketing opportunity to Irish farmers and retailers in terms of capitalising on Ireland's reputation for sustainable production systems.

Measures to enhance biodiversity on dairy farms

Grass-based farming systems in Ireland are well positioned in terms of the wildlife they support. It is estimated that natural and semi-natural habitats constitute over 7% of intensive dairy farm area. Appropriately-designed wildlife measures, targeted for intensive dairy systems, could play an important role in halting the decline of biodiversity, along with improving water quality, reducing greenhouse gas emissions and achieving the goals of sustainable expansion.

Maintain and manage existing habitats

It is important to optimise the biodiversity value of existing farmland habitats before new biodiversity measures are established. It is typically more effective to retain existing habitats rather than establishing new ones. Existing habitats, including woodland plots, ponds and wetlands should be protected from more intensive agricultural management. These areas should be appropriately managed and avoided when sites are being selected for 'new' biodiversity or carbon initiatives. Many of these semi-natural habitats benefit from farm management that prevent the area from scrubbing over (e.g. light grazing of woodland plots in spring and autumn can help improve the quality of the area).

Hedgerow management

Hedgerows are the dominant habitat feature on Irish farms with the average dairy farm (56 ha) having over 6 km of hedges. However, the quality of many of the hedgerows is low. High quality hedgerows provide multiple benefits, including providing shelter for stock and improving biosecurity; improving water quality; sequestering carbon; and acting as a refuge for biodiversity. Optimal management include:

- The sides of hedges should be trimmed, with the top allowed to grow taller. This provides greater shelter and stock-proofing for animals, and improves the diversity and quality for wildlife.
- Replant escaped or ‘gappy’ hedgerows with native species (e.g. hawthorn). Native species support a greater abundance and diversity than non-native species.
- Leave occasional trees or bushes to mature, thus providing greater feeding and nesting habitats for a variety of species.

Ensure that appropriate management is undertaken outside the closed period from March 1st to August 31st.

Watercourses and buffer strips

Riparian buffer strips are strips of permanent vegetation adjacent to rivers and streams that are typically excluded from intensive farming practices. Appropriately managed buffer strips play an important role in maintaining water quality, ensuring bank stability and providing a habitat for biodiversity. To optimally manage:

- Avoid fertiliser, slurry or herbicide application in the buffer strip.
- Allow vegetation in the strip to develop, but avoid the strips becoming dominated by scrub.
- Exclude livestock fully from watercourses (if feasible).
- If cleaning the channel-bed, the spoil should be deposited away from the buffer strip.

Consult with Inland Fisheries Ireland prior to undertaking any in-stream management.

Establishing new habitats

New biodiversity measures play an important ecological role where there is a lack of existing habitats. New measures could be targeted to less productive areas of the farm, but should not replace existing wildlife habitats. Replacing existing habitats with newly created habitats is poor practice and typically results in a reduction in farmland wildlife.

- Wider field margins (including those sown with grass and wildflower mixes) provide a habitat for plants and animals, can prevent undesirable plant species from encroaching into the field, and more easily facilitate management of hedgerows.
- Awkward field corners could be left uncut following silage removal. This temporary measure provides food and cover for a variety of species such as farmland birds and small mammals. Corners could be grazed-off when animals are re-introduced to the field.

