

Implementation and maintenance of field margins

Goal

Provide species-rich habitats and foraging sites

Short description of the measure

Margin types: field margins can be very diverse, beginning with sites with natural regeneration (NR); grass or wildflower sown, pollen and nectar mix, wild bird seed mix, annual set-aside or conservation of the headland. Longer term and less disturbed field margins, such as sites with natural regeneration or wildflower sown field margins, appear to provide the most consistent environmental benefit.

It's advisable to allow natural regeneration or to focus on the conservation of the headland, and if no diverse flora establishes itself, a wildflower mixture should be sown in.



Different **margin widths** are specified for different Field margins, and purposes e.g. spray drift vs. runoff of pesticides. For Natural Regeneration and Wild Flowers, at least 3 m width is advisable.

On the other hand, field margins may be implemented in different ways but with the same overall area (i.e. a 3 m wide strip at the full perimeter of multiple fields vs. a 10 m wide strip implemented within only one field).

In case flower mix is sown, from the conservancy point of view:

- Flowering mixtures must be autochthon, i.e. that species are indigenous to a given region or ecosystem
- Flowering mixtures should include a variety of different species
- Field margins are rather perennial because of their higher species- and structural diversity, i.e. different heights and flowering dates/durations
- Goal is a rather extended flowering period with a high structural diversity, which can be achieved by including into the seed mixture plant species flowering at different times of the season
- Selection of species with high ability to compete with weeds.



Quality elements of soundly implemented biodiversity measures	<ul style="list-style-type: none"> ▪ Structural diversity of the strips and plots (not a sole grass community) ▪ Mown in September after flowering ▪ After mowing, 10–50 % of the area must remain uncut
Effects on biodiversity (ecosystems, species, soil biodiversity)	 <p>Promotion of wild herbs (only in the non-sawn case)</p>
	 <p>Margins provide protection and refuge for insects, hare and partridges during agricultural work on the field.</p> <p>Margins along fields and paths are habitats and wintering grounds for many insects. Useful animals such as ichneumonids, forest bees, flower flies among others are thereby promoted. Birds such as red-backed shrike, brown linnet and partridge have a forage ground in these structures.</p> <p>Margins also serve as step stones and connect open countries for butterflies, grasshoppers and other insects.</p>
	Field margins are used for foraging, nesting, feeding, as shelter or for migration and movement by various species.
Other positive effects/benefit for the farmer	<p>Field margins also have the potential to provide additional agronomic benefits for the crops which they surround by providing ecosystem services in the form of pollination or pest control.</p> <ul style="list-style-type: none"> ▪ The increase of yields in crops dependent on pollinators i.e. melon, watermelon, tomatoes, fruit trees, legumes and rapeseed ▪ Also, buffers can help prevent soil erosion and the transfer of agricultural pollutants from cropped areas to non-cropped areas, particularly aquatic habitats. This may in turn benefit biodiversity in off- crop areas and improve water quality.
Indicator/key data	<ul style="list-style-type: none"> ▪ Size in ha ▪ Minimum width of 3m
References	<ul style="list-style-type: none"> ▪ www.landwirtschaft-artenvielfalt.de ▪ Promotion of biodiversity in fruit plantations – NABU; REWE and Lake Constance Foundation, 2015 ▪ Stiftung Rheinische Kulturlandschaft, DBU: Abschlussbericht Maßnahmen- und Artensteckbriefe zur Förderung der Vielfalt typischer Arten und Lebensräume der Agrarlandschaften, 2018

Further information: [Knowledge pool](#)

This Action Fact Sheet belongs to the training package for product-, and quality managers of companies and was developed within the project: “Biodiversity in Standards and Labels of for the Food Industry”. The main objective of the project is to improve the biodiversity performance of standards and sourcing requirements in the food industry by helping standard organisations to integrate efficient biodiversity criteria into their schemes and motivating food processing companies and retailers to include comprehensive biodiversity criteria into their sourcing guidelines.

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