

Planting and management of hedgerow

Goal

Provision of habitat and winter quarters for beneficials and other wild animals and contribution to key ecosystem services

Short description of the measure

Hedgerows are permanent and complex structures distributed along the perimeter of fields or dividing them. From the ecological point of view, the more complex these structures are, the more ecological habitats they hold, and therefore the more they contribute to biodiversity.

Hedgerows do not only serve as refuge for biodiversity but contribute to the provision of key ecosystem services of high interest for farmers such a thermal regulation, protection from winds, biological control, prevention of soil erosion or pollination.

- Species-rich and diverse structured hedgerows should be maintained and/or planted
- Around the hedgerows and shrub islands there may be enough space for the establishment of wild herbs.
- Pruning should be done in winter (Febr./March) in case of species with fruits which provide food for wildlife such as birds, ideally February/March.
- Pruning must only be done on one side per year and on maximum of 30–50 % of the whole hedgerows.
- Coppicing of either trees within the hedgerows or fast-growing bush-species may be done every 5–10 years in order to regenerate the hedgerows.



Pic. 1: A half-year old hedgerow consisting of native species, well protected from animals.



Pic. 2: A natural hedgerow from many different native species, surrounded by a 1 m buffer zone of grass strip before the agricultural used plot starts

<p>Quality elements of soundly implemented biodiversity measures</p>	<ul style="list-style-type: none"> ▪ Hedgerow of at least 3–4 m width ▪ Length depending on the function and the landscape mosaic ▪ Hedgerow consisting of > 5 native species ▪ Representation of 3 strata: grass, shrub and tree elements ▪ Strip of wild herbs or flowering strip surrounding the hedgerow ▪ Works (pruning, re-planting...) should be avoided during sensitive period for biodiversity, usually in spring during the breeding season.
<p>Effects on biodiversity (ecosystems, species, soil biodiversity)</p>	<div style="display: flex; align-items: center;">  <div> <p>The multilayered structure of hedgerow (soil-, herb-, shrub- and (if any) tree layer) facilitates a potential high species diversity.</p> <p>Hedges support structural diversity, act climate regulating and as a windbreak (which is e.g. in favor of heat-dependent species such as butterflies).</p> <p>Many species also use hedgerow as winter quarters (hedgehog, Common Toad, ...), hiding place (Hare, Birds, ...), forage (e.g. already in early spring for wild bees and other insects; berries and other fruits in autumn), as well as territory border (e.g. perches and song post for birds, such as red-backed shrike, barred warbler, brown linnet, greater white-throat).</p> </div> </div>
<p>Other positive effects/benefit for the farmer</p>	<p>Hedgerows serve as habitat for many different species. They feed and hunt within different radius, but most of them just reaching 30 m from their retreatment area. Thus, with proximity to hedgerows the need of pesticides is reduced.</p> <p>Woody linear elements, such as hedgerows and lines of trees can help to reduce wind and water borne soil erosion, and hedgerows are particularly important in steep terrain as they can reduce the risk of landslides. This ensures sustainable yields. Hedgerows also reduce the nutrient input on water bodies.</p> <p>Wind protection of hedgerow on the wind protected side extend on the 10 to thirtyfold length of its height, e.g. an 1m high hedgerow influences the surrounding on 10 to 30 m: In that area, precipitation and soil humidity increase, evaporation decreases, which leads to a yield increase of 10–20 %. Thus, the yield increases even exceed the losses which may occur very close to the hedge (due to shade effects and nutrient concurrences).</p>
<p>Indicator/key data</p>	<ul style="list-style-type: none"> ▪ Hedgerow of at least 3–4 m width ▪ Number of species per hedgerow ▪ Length of hedgerow ▪ Complexity of the structure: grass shrub and tree elements are present

References

- Bäume, Hecken und Biodiversität, SOLAGRO 4. Quartal 2002
- www.nabu.de/umwelt-und-ressourcen/oekologisch-leben/balkon-und-garten/naturschutz-im-garten/01955.html
- 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
- Entry Level Stewardship - Natural England publications

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 LIFE Food & Biodiversity (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.

Editor: LIFE Food & Biodiversity; Lake Constance Foundation

Photo credits: Icons: © LynxVector / Fotolia, © Philipp Schilli / Fotolia, © nikiteev / Fotolia

Pic. 1/2: Thomas Stephan/Dominic Menzler, BLE, www.oekolandbau.de

European Project Team



Supported by

Recognized as core initiative by



EU LIFE programme



One planet
eat with care

Sustainable
Food Systems

www.food-biodiversity.eu