

Ecological infrastructures long-lasting in wildlife food resources

Goal To guarantee trophic resources for pollinators, bees, bumblebees and other insects.

Improvement of hedgerows and buffer strips in order to gain ecological complexity and food resources for wildlife during the maximum amount of time.

This includes all kind of resources such as pollen, fruits as well as ecological niches for species and plants.



Short description of the measure

Pic. 1: Flower strips in an olive crop. The species richness of the floral strip and a sufficient width ensure the availability of food and shelter for the auxiliary fauna.

Pic. 2: Buffer strip in an intensive tomato crop. In an intensive crop, the buffer strip brings richness and variety of habitats to the landscape.

In the past, plots were generally surrounded by accessory plants providing protection for the crop and/or edible fruits for farmers. Some of these species are considered forgotten/traditional orchard trees, some examples are: *Sorbus domestica* (sorolla/serbal), *Crataegus azarollus* (acerolas) / *Crataegus monogyna* (hawthorn), *Mespilus germanica* (níspero europeo), *Ficus carica* (higueras), *Ziziphus jujuba* (azufaios), *Ligustrum vulgare* (privet) etc. These plants also provided shelter and food resources for wildlife, as well as semi-natural habitats with wild plants with diverse flowering periods (*Crataegus*, *Viburnum*, *Rubus*, etc.).

Farm intensification lead to the simplification of plots and the loss of these structures.

Autochthonous species should be selected in order to increase the complexity of hedges and flower strips, trying to include plants with different flowering dates.

For detailed step-by-step instructions please check out the Action Fact Sheet on Flower Strips and Hedges.

Quality elements of soundly implemented biodiversity measures

Wildlife in general but with a special interest for wild pollinators, honey bees and birds. Some studies on biological pest control show that the lifetime of parasitoids can be extended if pollen resources are available, therefore delivering a more efficient pest control.

<p>Effects on biodiversity (ecosystems, species, soil biodiversity)</p>	<div style="display: flex; justify-content: space-between;"> <div style="width: 15%; text-align: center;">  </div> <div style="width: 85%;"> <ul style="list-style-type: none"> ▪ Shelter and food resources for wildlife. ▪ Semi-natural habitats with wild plants with diverse flowering periods that provides flowers, nectar, and pollen for wild pollinators, honeybees and other insects. ▪ Habitat that supports useful macro- and microorganisms. ▪ Provision of hibernation habitat for insects in parts that retained over winter. </div> </div> <hr/> <div style="display: flex; justify-content: space-between;"> <div style="width: 15%; text-align: center;">  </div> <div style="width: 85%;"> <ul style="list-style-type: none"> ▪ Breeding and foraging habitat for field birds such as partridge, corn bunting, and quail. ▪ Provision of foraging habitat for birds in parts that retained over winter. ▪ Areas of refuge for reptiles. </div> </div>
<p>Other positive effects/benefit for the farmer</p>	<ul style="list-style-type: none"> ▪ Increased density of pollinators. ▪ General increase of beneficial organisms reduces the need of pesticides. Many predators feeding on insects hunt on the field within a radius of 30 m from their retreatment area. ▪ Reduction of soil erosion. ▪ Better biological control. ▪ Crops protection against winds or frozen.
<p>Indicator/key data</p>	<ul style="list-style-type: none"> ▪ Length of hedges improved. ▪ Diversity of flowering species with different flowering dates. ▪ Diversity of fruit species with different fruit dates. ▪ Number of trees/shrubs/herbs planted / sown.
<p>Reference</p>	<ul style="list-style-type: none"> ▪ www.navarra.es/NR/rdonlyres/86815038-FE6D-404A-9A29-3C27FCCBF013/398080/SistemadeAltovalorNaturalCultivosmediterraneosenla.pdf ▪ http://awsassets.wwf.es/downloads/agricultura_donana.pdf

Further information: [Knowledge Pool](#)

This Action Fact Sheet belongs to the training package for managers of standard organisations and 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.

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