

Nesting aid for birds and bats

Goal

Support of birds and bats, organic pest control

Target group

All farms of any production type can apply this measure.

Description of the measure

Before deciding to implement this action it would be good to have previous knowledge about the likely species that can use these boxes. Nesting aids can differ in size, height, diameter of entrance holes depending on the species which should be promoted.

Construction, installation and maintenance of nesting aids for birds

Construction should be made of blunt, 20 cm thick wooden planks from oak or larch. Rather use screws instead of nails. Drill a few small holes in the ground of the nesting aid in order to improve ventilation and fast drying. Do not use chemical wood preservative but flaxseed oil or environmental friendly paints to protect outer walls.

The ground should measure at least 12x12 cm. To protect from predators such as cats or marten, the downer margin of the hole must be at least 17 cm above the ground of the nesting aid. For the same reason, the overlap of the roof above the entrance hole should be rather extended. There is no need for a perch. Diameter of the hole differs depending on the target species, but an average of 30cm suits most of the songbirds. Birds like swift and swallow, however, require different kind of nesting aids. Species, which depend on cracks, such as black redtail or wren, will not breed in closed nesting aids with a small hole but need half opened aids. For the setup of those houses, protected sites, which are inaccessible for predators, e.g. house walls, barns or garden cabins are very important.

Nesting aids should be installed ideally in autumn in 2–3 m height with direction east or south east. To protect from rain, they should be installed a little overhanging. Similar nesting aids should be arranged in at least 10 m distance to make sure breeding birds find enough food in the near surrounding (exception: colony-breeding birds such as sparrows, starlings or swallows).



Maintenance

To mitigate the attack of fleas, mites or louse flies, nesting aids need to be cleaned after the breeding season either in late summer or before the next season in order to avoid disturbance hibernating mammals such as dormice. Because it is not easy to find the right time before breeding, it is better to skip cleaning one year instead of disturbing birds. For the removal of the aid please wear gloves and dust it out in case needed. Do not use insect spray or chemical cleanser.

Construction, installation and maintenance of nesting aids for bats

Construction should be made of blunt, 20 cm thick wooden planks from oak or larch. The inner side and backside should be rough and structured to give the bats a better hold.

Nesting aids should be installed at least 3–5 m height and bats should be able to approach the wholes freely, i.e. nesting wholes must not be overgrown or covered with branches. As soon as the nesting aid is inhabited by bats, they must not be disturbed.

	<p><i>Maintenance</i></p> <p>Maintenance and cleaning of the aids during absence of bats, ideally between November and February. Even in case of parasite infestation (e.g. mites or bugs) do not use any insecticide, but if necessary a leach of soap.</p>
Suitable sites	Farmstead, gardens, orchards, vineyards, trees or other landscape elements
How a good implementation looks like	<ul style="list-style-type: none"> ▪ Orientation and protection as described above ▪ Not affected by vegetation in the surrounding ▪ High quality, such as abandonment of chemical wood protectors, no splinters
<p>Effects on biodiversity</p> <p>(ecosystems, species, soil biodiversity)</p>	<div>   </div> <p>Many of the birds breeding in holes are insectivorous or feeding on mice. As most of the old and friable trees with their natural holes nowadays are missing in the landscape, artificial nesting aids for birds and bats are vital. Therefore, the establishment and maintenance of nesting sites for birds and bats is an important tool in applied nature conservation.</p> <p>All native bat species feed on invertebrates. Because they are nocturnal they prey insects which will not be caught by birds. Therefore they accomplish valuable ecosystem functions. Artificial nesting aids contribute to species conservation.</p> <p>Furthermore, nesting aids provide shelter in winter. As birds need to keep their body temperature constant on 39-42°C, lots of their body fat gets burned. They lose in this way fast in weight and become weak. Bats require a frost-free shelter as well.</p>
Other positive effects/benefit for the farmer	Birds and bats are beneficials. During breeding they feed millions of insects and caterpillars to their chicks and function in that way as biological crop protection. Therefore, they contribute to the reduction of herbicide use.
Indicator/key data	<ul style="list-style-type: none"> ▪ Number of nesting aids ▪ Number of nesting aids used by birds or bats
Risk and further recommendations	Differences between species, of both birds and bats can determine the success of this action. Every species has its own requirements so the type of the box, the location and the season can be very different.
<p>Timeframe</p> <p>(When to start a measure and anticipated time for implementation)</p>	When to start: Nesting aids can be set up all year but at best in autumn as they provide shelter already in winter. Cleaning should be done after breeding season in late summer for bird nests, in winter for bat nesting aids.

Additional special resources/ equipment/ skills needed	Building material can be purchased at any local construction market. They can also be bought prepared, but please check the quality before buying.
References	<ul style="list-style-type: none"> ▪ www.landwirtschaft-artenvielfalt.de/ ▪ www.nabu.de/tiere-und-pflanzen/voegel/helfen/nistkaesten/index.html ▪ Promotion of biodiversity in fruit plantations – NABU; REWE and Lake Constance Foundation, 2015

Further information: [Knowledge Pool](#)

This Action Fact Sheet belongs to the training package for advisors 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.

Editor: LIFE Food & Biodiversity; Lake Constance Foundation

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