

Nesting aid for wild bees

Goal

Improvement of the supply of nesting sites for wild bees

Short description of the measure

A wild bee nesting aid supports species which lay their eggs in holes. The more diverse it is structured, the higher the chance that different species of bees establish.

Wild bees like it warm and dry. Therefore, in colder climates, like the temperate region, a sunny, wind- and rain protected site (south/south east, not facing the weather) should be chosen. However in warmer climates like the Mediterranean regions avoiding these orientations is crucial for avoiding very high temperatures that could kill the insects. In very warm areas they shall be protected from direct sun (under tree canopy, beside walls, inside hedge-rows, etc.)

Nesting aid made of wood

- Drillings across the texture of age rings of a massive wood log to avoid cracks in the wood and moisture in the brood borrow
- Borehole diameter: 2–10 mm
- Distribution of boreholes should be asymmetric and clean
- Borehole density: distance to the next hole should be around 1,5 times the size of the borehole diameter
- Splinter on the hole entrance should be removed with sandpaper or drill.
- The backside of the log should be oiled and impregnated
- On the top of the nesting aid a roof should be attached

Nesting aid with reed

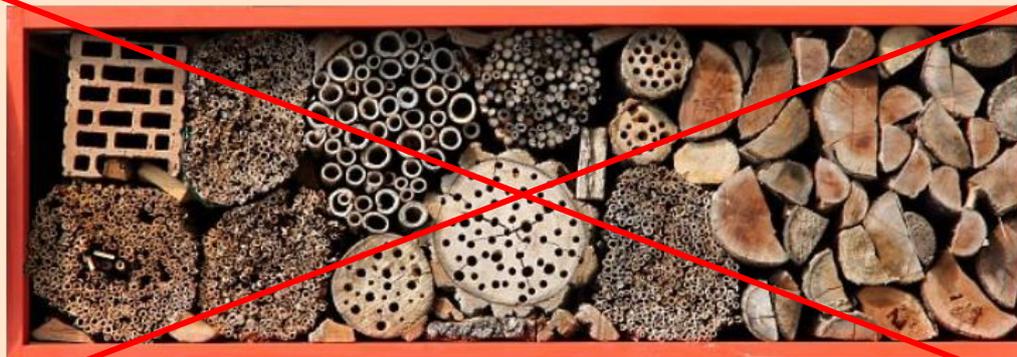
- Reed cut with an inner diameter of 3–9 mm on 10–20 cm and tied together
- One side must be closed



Pic. 1: Positive example: Nesting aid made with reed and paper rolls, evenly cut and well protected from birds. Natural materials, such as reed, is very well in use.



Pic. 2: Positive example: Nesting aid with different hole diameters, where you can see that the biggest ones are not that well used than the smaller ones



Pic. 3: Negative example: Brick and reed has too big holes, wood log with wholes has cracks and wood logs without wholes does not have any value as a nesting site at all

There are numerous other construction options for nesting aids, considering size and material. Practical guides can be found, e.g. at www.foxleas.com/make-a-bee-hotel.asp

It is also possible to buy prepared nesting aids. Often, however, these are insufficiently set up:

- they offer insufficient protection from wet weather
- the holes are too large, because they are made abroad to cater for species that do not live in Europe
- tubes have splinters inside
- tubes have no solid back wall and are simply open-ended wind tunnels
- they contain glass or plastic tubes which cause condensation and fungus moulds

Quality elements of soundly implemented biodiversity measures

- Appropriate orientation according to the local climate
- Installed protected from wind and rain
- Not overgrown
- High quality, such as “clean” holes, holes along the texture of the wood and others as described above

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| Effects on bio-diversity (ecosystems, species, soil biodiversity) |  <p>The decrease of pollinating insects is one of the main threats for the biological diversity. More than 80 % of our native wild herbs are not able to ripen seeds without pollinators and are thus endangered themselves. Main reason is the decrease of habitat and forage supply for wild bees. The supply of nesting aids in combination with diverse pollen- and nectar sources is a valuable tool to support wild bees.</p> |
| |  <p>Meanwhile, insectivorous birds get supported, too.</p> |
| Other positive effects/benefit for the farmer | <p>As some wild bees are already active between 4 and 10°C, they can contribute to pollination at weather conditions which are unsuitable for the honey bee. Therefore, the provision of nesting aids is a valuable measure to increase the yields. Studies showed furthermore, that wild bees are more effective than honey bees: With the same amount on flower visits compared between wild pollinating insects and honey bees, double the amount of fruits were built by plants pollinated by wild insects.</p> |
| Indicator/key data | <ul style="list-style-type: none"> ▪ Number of nesting aids which are in use |
| References | <ul style="list-style-type: none"> ▪ www.foxleas.com/make-a-bee-hotel.asp ▪ www.landwirtschaft-artenvielfalt.de/ ▪ www.nabu.de/tiere-und-pflanzen/insekten-und-spinnen/insekten-helfen/00959.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 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

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