



OFFICE INTERNATIONAL

du Coin de Terre et des Jardins Familiaux

Regroupement des fédérations européennes des jardins familiaux
association sans but lucratif

Bees on allotment garden sites

V A D E M E C U M



1) **Provision of information & raising awareness among gardeners**

(a) Raising awareness of the facts

Why are bees so important in the garden?

- 85 % of fruit and vegetable cultivation benefits from pollination by numerous insects, including the honey bee
- Wild bees pollinate in a radius of approximately 400 m, honey bees up to around 3-4 kilometres
- Honey bees act as flying doctors
- The flavour of fruit is improved by pollination from bees. Bees are territorial, i.e. they return to the same tree as long as it is flowering (monofloral honey).

Why bee numbers are declining:

Honey bees:

Overbreeding and loss of purebred bees

- Lack of knowledge on the part of the beekeeper about the handling of honey bees
- Varroa mites are a major problem

Wild and honey bees:

Fungal, bacterial and viral diseases

- Sensitivity to plant protection agents/pesticides
- Insufficiently varied food supply
- Increasing numbers of double-flowered, nectar and pollen-free ornamental plants

(b) Organisational/strategic implementation

- Meetings/ short talks to statutory general meetings (congress, assembly of delegates, etc.)
- Information in magazines, circular letters, etc.
- Start with gardeners who are already convinced → snowball effect
- Explain the key facts about honey bees and what their impact is, in order to increase acceptance among gardeners
- Discovery day at a beekeeping nature trail
- Set up 'taster bee hives', so that new beekeepers do not buy their own bees before they are ready
- Get to know and learn to appreciate products from beekeeping: beeswax, pollen, propolis. Bee venom can be used to treat rheumatic diseases. It also improves the circulation and is an anti-inflammatory. (Royal jelly is not liked by many 'nature-orientated' beekeepers, as the extraction is VERY stressful for the bees!)
- Visits to schools
- Opportunities for the general public to get involved
- Children's activities
- Honey tasting
- Lectures: Importance of pollination in the garden
- Further PR and communication campaigns



2) **Plants needed for wild and honey bees:**

- Herbs, plants, bushes and trees provide a constant source of nutrition
- Sweet clover, daisies, snowdrops, crocuses, dandelions, etc.
- Lime trees, chestnut, etc.
- Fruit orchards with old regional varieties
- Redcurrant, raspberry and blackberry bushes
- Shrubs such as maythorn and whitethorn, buckthorn, common privet, wayfaring tree, guelder rose, honeysuckle and common hazel
- Small trees, such as the black or green alder, Montpellier or field maple, European cornel and juneberry

A purely vegetable gardens have limited suitability as bee pastures
In contrast to flower meadows, lawns are of practically no value

3) **Providing a habitat for wild bees:**

- Of the 560 species of wild bee, almost half are endangered; these are not feral honey bees, but mostly solitary species
- In early spring, they need nectar and pollen-rich flowers, especially native plants
- For breeding and nesting sites, they need small structures such as dry walls, gaps in plaster, open areas of sand, loamy slopes, hollow stems and dead wood
- The domesticated honey bee is just one of many native species of bee – you can support these important pollinators even without becoming a beekeeper!



4) **Keeping honey bees in garden plots and allotments**

a) **Setting up the beehives**

Location:

- Unobtrusive location
- Quiet location with little direct pedestrian traffic in front of the bee house
- Not directly exposed to the wind
- Entrance holes should be situated facing your own property
- Wooden structures at a distance of approximately 1 metre in front of the bees' entrance hole cause the honey bees to quickly fly upwards and stop them from getting in people's way
- A source of water nearby makes it easy for the bees to transport water to the hive
- Distance from the neighbouring property should be 10 metres, unless specified otherwise
- A individual plot of land with beehives on it should be at least 100–200 m²

Avoiding problems:

- Do not wear perfume, as honey bees have a defensive reaction to the smell
- Do not drink alcohol/Avoid sweating near honey bees as far as possible
- Move slowly when around honey bees



b) **Purchasing bees:**

- Get advice/help from an experienced beekeeper
- Good contacts are well known in (amateur) beekeeping circles
- Request health and foulbrood certificates
- Request proof of origin of the queen

c) **Keeping the bees**

- Form partnerships with other amateur but commercially active beekeepers
- Join an association for continuing education
- Training: Basic principles
- Hygiene requirements
- Good beekeeping practices

- Avoid synthetic plant protection agents
- Legal requirements:
Control of bee diseases, marketing of honey (food legislation), consumer protection

d) Beekeeping equipment

- Langstroth hives (bottom board, cover and frames) or single-room hives
- Bee colony
- Central walls made from beeswax (note: not from outside Europe)
- 1 beekeeping suit
- 1 beekeeping veil with hat
- 1 pair of beekeeping gloves
- 1 smoker (or clove oil)
- 1 hive tool
- 1 bee brush
- Beekeeping tobacco or herb mixtures, 750 g
- 1 water atomiser
- Various small implements



e) Harvesting equipment

- 1 honey extractor (good idea to buy together with fellow beekeepers)
- 1 uncapping tray
- 1 uncapping fork
- 1 honey sieve and fine sieve
- 1 honey stirrer (facultative)
- 4 plastic honey buckets with outlet tap
- Various small implements

f) Equipment for selling the honey

- 1 stainless steel filling bucket
- 1 small table scale
- Jars, lids and labels
- Various small implements

g) Costs and financing

- Hives and equipment for small-scale beekeeping (2 bee colonies) – approx. EUR 1,500.00
- Partnerships (sponsorship) for financial support (benefactors, authorities, companies, etc.)

h) What to do in the case of bee stings

- Immediately pull out the stinger
- Sugar, salt, onions or lemon and honey will draw the venom from the wound
- Swelling, reddening and itching are normal (calcium tablets may be taken), but if reactions occur on other parts of the body, e.g. dizziness, rash, etc., then a doctor should be consulted immediately
- In the event of stings in the mouth, throat or near the eyes → consult a doctor



5) Additional information

(a) German specialised literature

Naturnah gärtnern (nature friendly gardening)

Beiser, Rudi
Essbare Wildkräuter und Wildbeeren
140 Arten, über 300 Abbildungen
Kosmos, 2012

Berg, Peter
Bio gärtnern. Der Grundkurs
Kosmos, 2013

Boomgarden, Heike, Bärbel Oftring und
Werner Ollig
Natur sucht Garten
Ulmer, 2011

Hensel, Wolfgang
Der kleine Schädlingsschreck. Das haut
den stärksten Schädling um.
Kosmos, 2011

Kern, Simone
Der neue Naturgarten
Kosmos, 2011

Oftring, Bärbel
Ein Garten für Tiere
Kosmos 2013

Staffler, Martin
Kleine Gärten in der Stadt
Kosmos, 2011

Fachverlag für Garten und Ökologie
<http://www.olv-verlag.de/kurt-walter-lau.html>

Zu Honigbienen und Wildbienen (concerning honey and wild bees)

Bellmann, Heiko
Bienen, Wespen, Ameisen
Kosmos, 2010

Hemmer, C. und Hölzer, C.
Wir tun was für Bienen
Kosmos, 2013

Petrausch, Georg
Imkern in der Stadt
Kosmos, 2011

Tautz, Jürgen
Phänomen Honigbiene
Elsevier, 2007

von Orlow, Melanie
Mein Insektenhotel. Wildbienen,
Hummeln & Co.
Ulmer, 2011

Westrich, Paul
Wildbienen. Die anderen Bienen.
Dr. Friedrich Pfeil, 2011

(b) Internet /URL

**Informationen rund um Bienen und das bienengemäße Gärtnern
(information on bees and a bee friendly gardening)**

Initiative zur Förderung der Wild- und Honigbienen
<http://www.deutschland-summt.de>

NaturGarten e.V. - Verein für naturnahe Garten- und Landschaftsgestaltung
<http://naturgarten.org>

Netzwerk zur Förderung naturnaher Blühstrukturen
<http://www.bluehende-landschaft.de/nbl/index.html>

Informationen rund um Bienen (information on bees)

[Bienenwissenschaftliche Institute in Deutschland, Österreich und der Schweiz](http://www.magazinimker.de/printable/unserverein/linksadressen/bieneninstitute/bieneninstitute.html)
<http://www.magazinimker.de/printable/unserverein/linksadressen/bieneninstitute/bieneninstitute.html>

[Deutscher Imkerbund e.V.](http://www.deutscherimkerbund.de/index.php?start)
<http://www.deutscherimkerbund.de/index.php?start>

[Naturschutzbund Deutschland e.V. \(NABU\)](http://www.nabu.de/tiereundpflanzen/insektenundspinnen/haeutfluegler/diebaghymenoptera/)
<http://www.nabu.de/tiereundpflanzen/insektenundspinnen/haeutfluegler/diebaghymenoptera/>

[Mellifera – Vereinigung für wesensgemäße Bienenhaltung e.V.](http://www.mellifera.de/)
<http://www.mellifera.de/>

Arbeitsgruppe naturgemässe Imkerei in der Schweiz
<http://www.agni.ch/cms/>

International Pollinators Initiative
<http://www.internationalpollinatorsinitiative.org/>

Verband deutscher Wildsamens- und Wildpflanzenproduzenten e.V.
<http://www.natur-im-vww.de/>

Thank you

This Vademecum has been worked out with the precious help of Mr Cornelis Hemmer, Stiftung für Mensch und Umwelt (Foundation for Men and Environment), who wrote with this wife Corinna Hölzer the newly published book: Wir tun was für Bienen (We are doing something for bees) 1st edition 2013 ISBN: 978-3-440-13671-3 Kosmos Verlag Stuttgart

and on basis of the reviews „der Fachberater 2/2013“ (Bundesverband Deutscher Gartenfreunde), „der Kleingärtner July/August 2013 (Zentralverband der Kleingärtner Österreichs) des Merkblatts 2011 „der Garten als Bienenweide“ (the garden as a pasture for bees) (Schweizer Familiengärtnerverband), several articles put at disposal by Ligue Luxembourgeoise du Coin de Terre et du Foyer and an article written by Hervé Bonnavaud.



Source of the pictures

Photo 1: Andrena
Photo 2: Herb spiral
Photo 3 : Flower with a bee
Photo 4: Bee hives in an allotment garden site

Photo 5 : Decorative hotel for wild bees
Photo 6: Megachile
Photo 7: Allotment garden

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