



Gardener set for osmia rufa / bicornis breeding with 400 cocoons

Price	162,00 Euro
Availability	Not available
Shipping time	Live organisms - minimum 2 weeks due to organisation of Veterinary Certificate
Manufacturer	Cultural Farm BioDar

Product description

Gardener set for osmia rufa / bicornis breeding with 400 cocoons

This breeding set consists of:

- Hotel for insects, size S - can hold up to 20 nesting trays
- Nesting trays set (20 units), in which the females of mason bees build nests
- Cocoons release box
- 400 pcs. of mason bee cocoons
- Separator

The set includes detailed instructions for using the BioDar breeding equipment.

The number of nests is adapted to the needs of 400 bees in a season abundant in food. Such a set can be used for many years, and following the instructions for proper keeping osmia breeding allows you to increase your own mason bee population quickly.

The set is enough for 1/4 a hectare of apple and pear orchard. Check what amount of cocoons are recommended for 1 ha of other crops: [\(click here\)](#)

Color:

hotel for insects - brown,
nesting trays - colorless, black or brown, in a mixed system,
cocoons release box - brown.

The colors on the picture may differ from the actual colors of the product.

Detailed information about elements of breeding set can be found here:

- for cocoons release box: [\(click here\)](#)
- for separator: [\(click here\)](#)
- for set of 20 nesting trays: [\(click here\)](#)
- for hotel for insects: [\(click here\)](#)
- for osmia rufa cocoons: [\(click here\)](#)

Attention!

The set should be placed at any height, preferably not less than 1m from the ground, in a place providing protection against rain and wind, and the nesting box with trays must not be exposed to direct sunlight (high temperature during hot days may cause deformation of nesting trays and narrowing the nest channels)!

Shipping:

- Orders should be placed minimum 2 weeks in advance due to the time needed to prepare bee health certificates and organization of the parcel.

The next date of shipment containing cocoons: autumn 2024.

- "Individual shipping method" is for shipment abroad. After receiving the order, we will verify that the ordered goods can be sent to the selected country of delivery. The shipping cost depends on the country of delivery and the possible shipping methods. Please wait for an e-mail with information about costs of shipment to the delivery address given in the order form. As soon as you accept the form and the cost of delivery, we will send you confirmation of order and start preparation for the shipment.

Cocoons of *osmia* come from the BioDar Cultural Farm, from breeding conducted since 1989 and from cooperating farms.

Our bee breedings are reported in Veterinary Inspectorates. In the apiary, the principles of sanitary prophylaxis are observed. High breeding standards are maintained thanks to the annual selection of cocoons. This activity consists of selecting the best educated precepts for further reproduction, removing moldy cocoons and getting rid of larvae of parasites. All cocoons are carefully segregated and deprived of mites. The survival rate of insects is examined annually. The gender structure is also examined. Bees sold have an optimal sex structure of 50% females / 50% males. A greater number of females would not increase the effectiveness of the population, because due to the *osmia*'s biology, only as many females will be fertilized as there will be males.

Cocoons are stored in appropriate conditions and their condition is periodically controlled, so that the survival rate of bees in cocoons kept up to the end of June is above 90%.

After purchasing cocoons, they should be kept in a cool place (preferably at a temperature of about 2 degrees Celsius), in a place providing protection against moisture and rodents. It is necessary to check their condition every two weeks, and about 2-3 weeks before the expected flowering of plants, cocoons should be placed in the orchard, garden or plantation. This will allow the bees to gradually wake up. This time ranges are given for weather conditions as in Poland. Shorter time ranges should be used for countries with warmer climate .

Bees should be placed in the target place at a height about one meter above the ground, preferably in a cocoon release box that protects the cocoons from rodents, wind and rain, near the nests prepared for them.

Useful links:

- recommended amounts of bees depending on the type of

crop: https://www.biodar.com.pl/EN/oferta_murarka_ogrodowa.php?page=murarka_ilosci

- BioDar System for growing own population of Red Mason

Bee: https://www.biodar.com.pl/EN/oferta_murarka_ogrodowa.php?page=murarka_system

Movies

BioDar Sytem for breeding mason bees (*osmia rufa* / *bicornis*)

Mason Bee - biology and use in agriculture, BioDar:

Extracting of mason bee cocoons from BioDar nesting trays:

Producer

Cultural Farm BioDar implements its mission using the rich scientific achievements of the Institute of the Heritage of Villages and Regions and extensive cooperation with non-governmental organizations.

The protection of natural and cultural heritage is an important sphere of the Farm's activities, and one of the basic goals is to preserve biodiversity and breeding useful organisms that can be used in agriculture and horticulture.

Since 1989, we have been implementing a program for implementing of bumblebees and solitary bees for horticulture practice and since 2012 the company has been running its own breeding of solitary bees on a commercial scale. By participating in the creation of biological progress, we respond to the high demands placed on by food consumers and our customers in the field of high quality of offered products and the safety of their use.

The farm is part of the regional biodiversity conservation center. In this area of engagement, it runs conservation collections of crops with high biological value (historical varieties of agricultural, vegetable and fruit plants). In cooperating organic farms, it also oversees collections of medicinal, herbal and melliferous plants. Similar works are carried out for the protection of rare

and endangered plants.

The sphere of cultural heritage includes products decorated in a way characteristic for different cultural groups. The high quality of our products is appreciated by very demanding customers. Their valuable remarks make the farm's offer constantly replenished and the products are perfected.

Movies

BioDar Sytem for breeding mason bees (*osmia rufa* / *bicornis*)

Mason Bee - biology and use in agriculture, BioDar:

Extracting of mason bee cocoons from BioDar nesting trays:

BioDar System

BIODAR System

Achievements of the BioDar company enabled verification of the view about little importance of solitary bees in pollinating plants. As a result of long-term tests as well as constant improvement of constructed devices, there was namely introduced a complete and standardised system of breeding, which guarantees great effectiveness and ease of breeding mason and leafcutter bees (*Megachilidae*).

This innovative method makes possible acquiring the bees in an profitable way and in the same time maximally beneficial to their development. It was achieved thanks to limiting the most laborious activities, standardisation of the used devices and the use of materials accepted by these insects.

Advantages resulting from the implementation of the BioDar System:

- **Facilitating the colony formation** and the production of a high quality biological material

Completing the nesting arrangement is very easy, and its layered structure enables the fast inspection of all levels.

- **Significant limitation of the labour-consumption and costs of the bee breeding**

In the traditional manner of breeding, common reed stems are most often used as a nest material; it is not possible to take cocoons out and select and disinfect them without destroying the nests, which involves the need of preparing or purchase of the reed every year.

- **Increasing the work safety while taking out cocoons of nests**

While reed tubes are torn open, a lot of mould fungal spores, grains of clay and remains of pollen unused by bees is getting to air. Staying in such an atmosphere can cause allergic reactions manifesting itself in headaches and itching mucous membrane of throat, eyes and nose. Applying the new method is not posing such a risk.

- **Getting a high percentage of females in filial generations** thanks to breeding mason bees in nesting trays with the optimum diameter of nest channels.

Functional and technical aspects of breeding *Megachilidae* bees using BioDar System

Complete breeding set consists of:

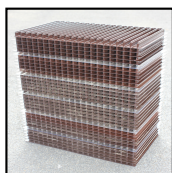
- Nesting box in a form of chest equipped with a carry handle
- Nesting trays set (35 units), in which the females of mason bees build nests
- Cover protecting channels with bees
- Cocoons release box
- Mason bee cocoons
- Separator

Nesting box



The "hive" box with nesting trays constitute the body of the **BioDar System**. The box is built of **wood**, which is a durable, aesthetic and very well accepted by the bees material. Moreover, it has good acoustic and thermal insulation properties, positively influencing the course of biological processes in the nest arrangement. Maximum weight of the box with the nesting trays entirely filled up with food for larvae and with bees is not greater than 6.5 kg. The nesting boxes are secured with eco-friendly varnish, protecting them against climatic and habitat adverse conditions (great humidity, microbiological disintegration).

Nesting trays



In the **BioDar System** all the aspects of the bee breeding economy are based on one key element, which is the nesting tray. This type of nesting arrangements was developed as a result of long-term tests and verified in field conditions. Using nesting trays is a novel solution and a step forward towards other nesting materials and manners of solitary bees breeding ([see development works](#)). A possibility of using the same nesting trays in many consecutive breeding seasons is a basic advantage.

The nesting trays are made of thermoforming film used for food packaging production. This material is well accepted by bees, both at a stage of settling channels as well as transforming larvae into next developmental stages. The trays put together in a form of packages have two-ply sidewalls along the nest channels enabling temperature stabilisation inside the nests. The optimum length and the diameter of nest channels are adapted to the mason bee females requirements while laying eggs. Using the trays of the same dimensions during the whole breeding process makes possible the unification of the remaining equipment, which is an essential factor of the comprehensive development and the organization of the entire system.

The nesting trays offered by the BioDar company are legally protected (UP-RP/W.120675, DE 20 2013 000 232.8).

Additional accessories

- **Cocoon release box**



Kaseta służy do przechowywania kokonów, wylęgu pszczół i eliminowania pasożytów. Zbudowana jest z drewna, a jej wewnętrzna konstrukcja uniemożliwia wyjście pasożytów, które mogą występować w kokonach pszczół (np. drogosz żałobny-*Antrax antrax*).

- **Red mason bee cocoons**

The red mason bee cocoons offered for sale descend from the reproductive material collected in the south and central Poland in 1989. At present, bees of this species are multiplied on the area of the own breeding apiary and in cooperating households. The adopted manner of the mason bee breeding and strict criteria of the cocoons selection guarantee obtaining the biological material of the best quality. Cocoons are sold from October till the half of March.

- **Separator**



A handy tool designed for the precise and simultaneous taking cocoons out of many nests, without exposing them to crushing. Using the separator makes possible thorough cleaning the channels from remains of clay and pollen and acquiring the mason bee cocoons from the nesting trays on average 9-times faster than from the stems of reed.

- **- Stelaż**



A roofed frame giving place for up to 2 BioDar sets, protecting the nests from rain and sun. The frames are protected with a waterproofing impregnant protecting them from adverse climatic and habitat conditions (high humidity, microbiological decomposition).

Closing remarks

Basing on the long-term tests, we can assure you, that the BioDar company delivers general-purpose, long-lasting and handy nesting arrangements, with all labour-saving accessories, which render the bee breeding profitable and successful.