



More than pollination!

www.osmiafuture.com

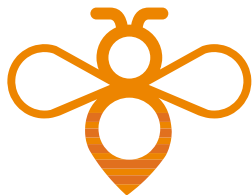




PROJECT OSMIA 4.0

ABOUT US

Our project consists of 3 elements that make up one complete product. We want to show to fruit growers that fruit production can be modern and thanks to optimal pollination of crops, they can achieve higher amounts of crops and profits.



The innovative **OsmiaBox** hives are designed for the breeding of mason bees. The system we have developed ensures optimal temperature and humidity conditions.



After the season, the hives are **serviced** and cleaned, and the cocoons removed from the habitat are sorted, disinfected and packed for our customers. We have created a special machine for this purpose.



The **BeeGrow** mobile application will allow fruit growers to manage their orchard more effectively and efficiently. We want to offer our clients modern possibilities that will make running the farm more pleasant and making the yields greater.



CREATORS OF THE OSMIA 4.0 PROJECT

PRZEMYSŁAW KAPKA -
COMPANY'S PRESIDENT



DAMIAN KAPKA - COMPANY'S
VICE PRESIDENT

Let us invite you to our world. A world of sustainable development where bees work tirelessly during spring to pollinate crops in every corner of the globe.

We remember when we were still young children, when we entered our parents' orchards during the flowering period, we could hear the loud buzzing of thousands of bees. It was an amazing sight. Year by year the sound of the working bees was getting quieter. Growing up, we witnessed a declining pollinator population. Our parents instilled in us a love for the land, educated us and taught us to work hard. After graduating from the Warsaw University of Life Sciences, we started our own adventures with fruit growing. Armed with the right knowledge and enthusiasm, we started new plantings. We run separate farms but we support each other. Together, we strive to give growers a chance to modernize the work on their orchards.



Red Mason Bee

**the golden mean between a
honey bee and a bumblebee**

The mason bee belongs to the order of the Hymenoptera insects due to the characteristic features of the structure. They are two pairs of membranous wings and a biting-licking type of mouthparts. Like other insects of this order, this bee undergoes a complete transformation (holometabolism) - the eggs hatch into larvae, which pass into the pupal stage, which in turn turns into an adult specimen. During development, the pupa is protected by a cocoon.

Red mason bees are solitary bees, but under favorable conditions they even create very large colonies. Despite this, they do not produce honey, and the main purpose of their breeding is to pollinate trees, shrubs and seedlings, which can therefore bear fruit abundantly.

The red mason is an insect that should live in every garden and orchard because it is universal and effective as a pollinator. The efficiency of pollination of apple, plum or raspberry trees is comparable to that of the honey bee. It is also an excellent pollinator for plants grown under cover. If we employ bricklayers to work in greenhouses and tunnels, in such conditions it can be active up to 14 hours a day.

A HIVE FOR RED MASON BEES



OsmiaBox is an innovative solution made of modular elements. It is created on the basis of many years of research and experience that we conducted at the stage of their creation. Their structure, thanks to the different nesting holes, helps bees in finding individual holes. In this habitat, we have used a special system that allows to maintain good humidity and temperature conditions inside the hive. The conducted research shows that the quality of the cocoons removed from the OsmiaBox hives is very good and the proportion of female to male cocoons was 50% to 50%, where the percentage of females is usually between 30% and 50%.

SERVICE



We know that a great problem of mason bee breeders is cleaning the hives after the season and sorting the cocoons removed from them. That is why we have created a special machine that is adapted to the tiles from our hives and allows for practically 100% automation of such a time-consuming process.

All cocoons that we take out, disinfect and sort will be packed in boxes of 500 pieces and returned to the growers.

MOBILE APPLICATION



An invaluable tool for dust planning. It will tell you exactly in what number and spacing to place the bees in a given quarters. It is extremely important that there is an appropriate number of bees that are necessary for proper pollination. The application, receiving data from the service device, will learn and adjust the number of bees according to individual needs and specific climatic conditions.

Functionalities of the mobile application



- ✓ It has the ability to add all plots with plantations to the application.
- ✓ It allows you to rent OsmiaBox hives and plan the pollination in your orchard.
- ✓ It allows you to monitor weather conditions thanks to the Frost Alert thermometer.
- ✓ It enables planning and recording of field works and treatments performed with plant protection products.
- ✓ It allows you to grant permissions to the application employees and creating a calendar with the most important events.



**LET US HELP YOU
RUN YOUR
ORCHARD IN
A MODERN WAY!**

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