WHEN USING
PESTICIDES,
PLEASE CHECK
COMPATIBILITY WITH
BUMBLEBEES AT
WWW.BIOBESTGROUP.COM



# USER GUIDE FOR BIOBEST BUMBLEBEE HIVES PREMIUM, STANDARD AND MEDIUM HIVE



### **CONGRATULATIONS!**

You have purchased a quality hive manufactured by Biobest, the company that has pioneered commercial bumblebee production since 1987. Carefully read this user guide, and our bumblebees will do a great job to pollinate your crop. Need additional advice? Contact your nearest Biobest advisor.

#### A LOOK AT THE HIVE BOX AND FIRST ACTION TO TAKE UPON ARRIVAL



Make sure the Biogluc® bottle is open. Depending on how the hive was transported this may or may not be the case upon arrival. Follow the instructions as shown below to open the Biogluc® bottle.

WARNING: when opening the Biogluc® bottle make sure not to push or squeeze the wick. It is essential to ensure proper supply of sugar water.



Remove the plastic hive box Open the Biogluc bottle





Place back the plastic hive box



Press the plastic hive box gently

#### POINTS TO CONSIDER TO ENSURE PROPER BUMBLEBEE ACTIVITY

- 1 Avoid openings in the cover of your greenhouse. Nets to cover doors/windows are recommended.
- 2 Avoid harmful pesticides and hormones before hive introduction and during hive activity. Questions about a particular product? Consult the Biobest Side Effect List on www.biobest.be or contact your Biobest advisor.



3 Bumblebees perform best when the greenhouse climate is:  $T^{\circ}$ :  $8^{\circ}C - 32^{\circ}C$ ; RH: 50-80%



4 From temperatures above 26°C the use of the ventilation system is recommended. Please follow instructions below to set it up.



Unfold the ventilation panels



Fold the bottom part as shown



Fold the upper part as shown



Close the lid of the hive

### WHERE/HOW TO PLACE YOUR HIVES IN THE GREENHOUSE

1 Distribute hives evenly in the greenhouse. In glass and plastic greenhouses use 1 introduction point per 1.000 m<sup>2</sup>. In plastic tunnels use 2 introduction points per 500 m<sup>2</sup>.

2 Make sure hives are placed in a horizontal position. Do not place hives on the

ground and do not place hives above the crop.



3 Place the hives maximum 5 m from the corridor. Max 6 hives together per introduction point.



4 Protect the hives against direct sunlight.





- 5 Protect the hive from ants, by creating a physical barrier.
- 6 Do not place hives near CO<sub>2</sub> tubes.

### **OPERATING THE BEE LOCK OPENING SYSTEM**



Cut /tear cardboard before opening.



After arrival put the hive in place and wait 30 minutes to open the hive. Do not open in the afternoon. It is recommended to open hives in the morning. To open the hive put the bee lock in this position.



To collect the bumblebees put the bee lock in this position. After 1,5 h the bumblebees will have returned to the hive.



To close the hive put the bee lock in this position.

### **DURING POLLINATION**

1 Check the bite marks on the flowers. Especially on tomato, the bumblebees leave bite marks on the flowers. Bite mark should be checked on closed flowers. 70% of the flowers should be bitten. If not enough flowers are bitten consult your Biobest advisor.









2 It is recommended not to move the hive after placement.



3 Do not push back or pull out cotton coming out of the flight opening. This is a sign that bumblebees are very active.



### **HIVE DISPOSAL**

After maximum 12 weeks of activity it is recommended to remove the hive. A bumblebee hive contains plastic, cardboard, organic material. Please consult your local legislation to dispose of the hive in a correct way.

### WHAT IF I GET A BUMBLEBEE STING?

Bumblebees are not agressive and generally peaceful. They may however sting in self-defence. A sting generally causes a local itchy swelling which can last for 24-72 h. The swelling can be relieved with cold. When more severe reactions appear, it may indicate oversensitivity. In this case contact medical services.

















### **OVERVIEW DIFFERENT HIVE TYPES**



#### PREMIUM HIVE

#### STANDARD HIVE

#### **MEDIUM HIVE**

6 to 8 weeks activity

+110 worker bees +80 worker bees 6 to 8 weeks activity

+80 worker bees 4 to 6 weeks activity

For specific pollination needs (open field crops, smaller greenhouses, ...) other bumblebee hive types could be more suitable. Please consult Biobest for specific advice.

This hive was delivered to you by:



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