

# This is not just a bumblebee



This is Natupol<sup>©</sup>

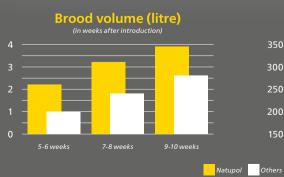
Best value for your money

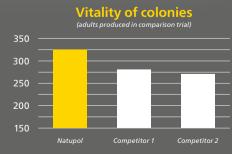


## GEARED FOR THE FUTURE

Our newly improved hives present a reliable, sustainable solution that guarantees maximum pollination. The Natupol system is the result of 26 years of accumulated expertise coupled to the latest technology – our best bumblebees, technically advanced hives, combined with our customized advice, deliver consistent performance and the best value for money.







# DISCOVER ALL THE BENEFITS OF NATUPOL®

1 MAXIMUM POLLINATION POTENTIAL

Natupol results in at least 30% more pollination potential when compared to rival products because Koppert's bumblebee colonies grow bigger and last longer. The hive design developed over the years helps bumblebees to save 20% of the energy usually spent on cooling and heating the hive.

2 HIGH QUALITY BUMBLEBEES

Vital colonies with a long life span offer more pollination hours. Comparison trials showed Natupol colonies produced more brood and bees over a longer period of time, prolonging the overall pollination. This is the result of 26 years' focus on innovation and quality.

3 BEST AVAILABILITY IN THE MARKET

Natupol colonies are available throughout the year and have a short delivery time. The international supply chain is well organized and strictly controlled. Koppert now has production facilities in Slovakia, Turkey, the United States and Mexico. Growers can be assured of compliance with the local food safety requirements imposed by their customers and stringent environmental legislature.

4 CUSTOMIZED ADVICE & SUPPORT FOR GROWERS
250 Natupal consultants and 130 distributors worldwide help growe

250 Natupol consultants and 130 distributors worldwide help growers by offering expert advice using best practices while working with Natupol. Our highly trained and solution-oriented consultants investigate problems and present custom-made solutions. We consider customer feedback essential!

5 READY FOR TOMORROW'S CHALLENGES

Pro-active research and collaboration with a number of scientific institutes and universities ensure we are geared for the future. With feedback from customers and local trials at numerous locations, Natupol products have been tried and tested to give you effective, affordable and sustainable solutions which satisfy customer demands.

All the above benefits ensure maximum pollination results at low pollination costs per kg giving customers the best value for money.

### **BUMBLEBEE WITH A VISION**

Innovation is one of our core values which is why international research is one of our key activities alongside production and distribution. Our continuous research with and for our customers over the past two decades has lead to newly developed bumblebee hives. The new hives, Natupol, Natupol Smart and Natupol Excel feature improved functions to solve present and future challenges.

#### **BEEHOME**

The hive contains two flight holes controlled by the Beehome device. This makes it possible to close the exit: when activated, bumblebees can fly in, but not out, which is vital when using pesticides, for example. Within 90 minutes all the bumblebees will have returned to the hive.

### **BROOD**

The brood, more specifically the larvae, are the trigger for the pollination. The hungry larvae continuously need to be fed large amounts of pollen. The more larvae there are, the more pollen needs to be collected, and this results in more pollination.

### **INSULATION**

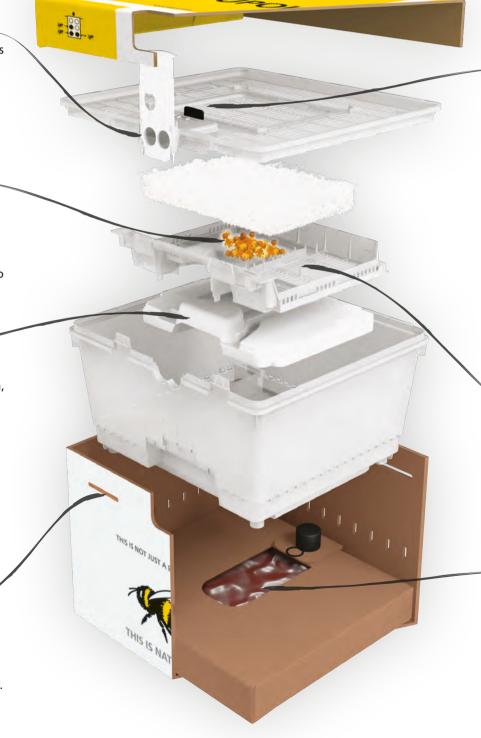
Every Natupol hive is equipped with a sophisticated integrated insulation system, (around and under) the brood. This means that the bumblebees need to spend less time and 20% less energy controlling the internal microclimate, resulting in more efficient and effective pollination activity.

### **BEST COLONIES**

Koppert selects only queens of the highest quality to produce uniform bumblebee colonies with the highest pollination potential.

### **VENTILATION**

The Natupol hive provides optimum ventilation, allowing the bumblebees to regulate their own microclimate efficiently.



### **BEE VISION AND ORIENTATION**

Bumblebees have different vision to humans. Research shows that this can have impact on overall pollination.
Reason enough for Koppert to initiate further research into the bumblebees sense of sight. All Natupol hives have been equipped with bee vision features reducing orientation problems and increasing overall pollination.

### **QUALITY CONTROL**

Koppert bumblebee production units produce over a million healthy and quality hives a year. All processes are strictly controlled and under supervision of the responsible authorities. Experienced and well trained R&D and quality assurance staff, who work in cooperation with top academic institutions worldwide, ensure that the most modern screening checks are carried out at each production facility. Every Natupol bumblebee hive has its own unique number which is printed on the box/liner for traceability to monitor imports, exports and trade in animals and animal products. Every hive is covered by a veterinary certificate that conforms to the legislation of the receiving country.

#### **BREEDING PLATFORM**

The ventilation and drainage openings have been optimized, ensuring that the hive itself remains clean and has less condensation, creating optimal conditions for the bumblebees and the brood to develop.

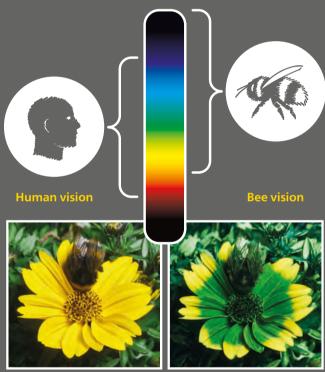
### **BAG WITH SUGAR WATER**

Our bag is remarkably user friendly and problem free, securing the availability of sugar water for the bees, while keeping the food clean. The sugar water inside the Natupol hive is of a high-quality, optimum energy source. Bumblebees love it!

# NATUPOL® EXCEL ADDITIONAL FEATURES

### INVISIBLE CUES THAT HELP BUMBLEBEE NAVIGATION

Bumblebees need daylight for their orientation. When artificial light dominates the natural light, bumblebees have problems with their orientation in the greenhouse, especially during the darkest months of the year. New innovative solutions based on extensive research now help bumblebees during unfavorable conditions. The Natupol Excel hive contains additional cues that are visible to the bumblebees alone and enable them to find their hives more easily.



### LARGE PROTECTED VENTILATION HOLES

These give the bumblebees more control over the internal hive climate. The holes are protected against unwelcome visitors by a special mesh.

### **BIGGER COLONY AND MORE SUGAR WATER**

The hive is delivered with a large bumblebee colony and contains more sugar water. This gives Natupol Excel a head start on the Natupol hive in crops with a high number of flowers and it helps in warm climate conditions to regulate hive temperature.

### NATUPOL® APPLICATION IN A SPECTRUM OF VEGETABLE, FRUIT AND SEED CROPS



Thanks to the high quality of Koppert bumblebees, we now have more certainty about the success of pollination, even in adverse weather conditions. We can also count on constant support and monitoring by Koppert consultants.

Giuseppe Schiavon, Kiwi grower, Italy



We like the high quality and user-friendliness of the Natupol hives; also their good availability. I can no longer envisage producing a successful crop of strawberries, blueberries, raspberries or blackberries without this product.

Roger Vogels, Strawberry grower, United Kingdom



The Natupol hives have significantly improved the quality and the taste of my tomatoes. Bumblebees work hard from the start. it gives me great comfort to know that my Koppert advisors are by my side whenever I need them.

Juan Antonio Garcia Prados, Tomato grower, Spain



We use Koppert bumblebees in open field crop to increase our yield. With Natupol the fruit set got better and bigger. As a result we can sell fruit sooner at a higher price.

Ismail Alyousef, Watermelon grower, Saudi Arabia



We start with the Natupol Seeds and then progress to the bigger hives. It is great to have a wide range of products available based on our needs. By cooperation and trust with Koppert we achieve our goals.

Henry Lommerse, Lommerse Breeding, The Netherland



## A COMPLETE POLLINATION PACKAGE

### NATUPOL® SEEDS

Natupol Seeds offers unrivalled efficiency and reliable pollination for small-scale isolated crops covering 1 to 25 m<sup>2</sup>.



### **NATUPOL® SMART**

Smaller colony with high pollination efficiency for crops with small amount of flowers covering 0 to 1.000m<sup>2</sup>.



### **NATUPOL®**

Normal sized colony for the pollination of most fruit and vegetable crops with approximately 25-35 flowers.



### **NATUPOL® EXCEL**

Bigger sized colony for crops with high pollination demand and a bigger surface covering more than 2.000m<sup>2</sup>.



### **NATUPOL® BOOSTER**

This internationally-patented hive was specially developed to give profusely flowering crops a boost for of three to four weeks for areas measuring 500 to 5.000 m<sup>2</sup>.



### **TRIPOL**

Tripol contains 3 large bumble bee colonies. This guarantees enormous pollination capacity for crops with short flowering times.



### **GLOBAL SOLUTIONS**

As Koppert Biological Systems grows, so does our need to stay in touch with our customers and growers. We provide our local advisors and distributors with up to date information, so that you benefit from the latest research results and solutions. Keeping our finger on the pulse also means listening attentively to growers in the field and receiving and responding to your feedback. Many of our solutions are based on growers' observations and we value their role in communicating the problems they encounter in the field. When it comes to finding solutions for today's cultivation issues, we are all essentially in a partnership with nature to make cultivation and the planet healthier, safer and more productive now and in the future.

For more information about our natural pollination solutions, go to www.natupol.com or call one of our advisors.









