

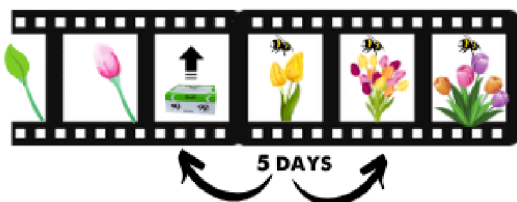


SCAN QR CODE FOR HOW TO USE QUAD VIDEO.

Unit of Packaging

Each QUAD contains four bumblebee colonies in a weatherproof box, specially developed for outdoor pollination conditions. QUADS are designed with insulation to protect the hive brood from outdoor temperature extremes and ventilation to allow humidity to exit the hive while preventing rain from entering.

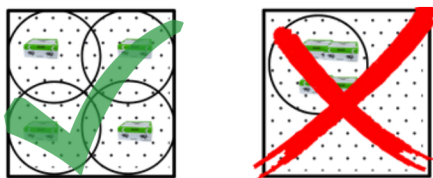
Handling on Arrival



QUADS are shipped with sufficient pollen and sugar water for transport only, so should be placed in the field and hive doors opened within 24 hours of arrival.

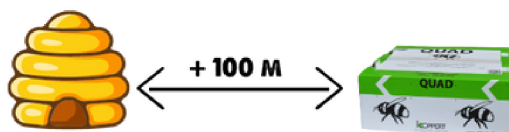
Avoid dropping or shaking QUADS as this can damage the brood causing delayed pollination while the bees repair the damage.

Placement in Crop

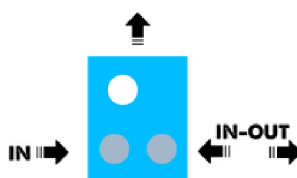


Place QUADS evenly throughout the crop, the more evenly dispersed in the crop the better pollination will be. Do not stack.

Use a pallet or insulation panel to keep QUAD up off the ground, this insulates from cold ground conditions, moisture and pests.



QUADS should be placed a minimum of 100 meters from any honeybee colonies to prevent honeybees from raiding the bumblebee colonies. QUADS can be used with Leaf Cutter bees without restriction.



Do not remove the paper mesh that covers the exit holes, the bees must chew this mesh to orient properly before leaving the QUAD.

Open the hive door of each hive by pulling the sliding door-up.

Environmental



In low crops (low bush blueberry, cranberries, cucurbits, etc.) QUADS should be shaded from direct sun using a Koppert shade structure, the shade of windbreaks or by creating a shade structure (examples; two pyramid-shaped pallets).

In taller crops such as Highbush Blueberry, or Orchards, simply positioning the QUADS under the canopy typically provides sufficient shade.

Position hive doors away from prevailing winds where possible.

Moving the QUADS



QUADS can be moved between fields provided the doors are lowered to the halfway "in-only" position 24 hours prior to moving to the new location.

If moving QUADS over long distances, use a refrigerated truck at 15°C and renew the air every 3 hours to minimize CO2 build up.

Check with the local governments for regulations regarding the transportation of bumblebees between regions.

Use a bee suit if possible to move the QUADS.

Disposal of QUADS



Old QUADS should be removed from the field and properly disposed of off-site (in accordance with local regulations). Old bumblebee colonies can be a source of bee pests or diseases.

Bear Protection



QUADS are attractive to bears. You can protect your QUADS from bears and other predators by placing them in an electric fence enclosure with sufficient voltage to ward off unwanted animals. If the QUADS need to be grouped together for electric fencing, it is recommended to group no more than 4 QUADS per enclosure.

Pesticide Side Effects



Some pesticides can have a negative side effects on bumblebees. Check our Side Effects database for more detailed information: <https://sideeffects.koppert.com/side-effects/>.

FREQUENTLY ASKED QUESTIONS - CANADA

When should I introduce QUADS to my crop?

- It is recommended to introduce into fields up to 5 days prior to first bloom.

How long do QUADS usually pollinate for?

- QUADS typically pollinate for 6-8 weeks, however this can vary with environment. Western QUADS (*Bombus vosnesenskii*) may be slightly shorter duration than this.

What temperature ranges do QUADS pollinate?

- Our bumblebee species will forage as low as 3°C (37F) but perform best at ambient temperatures of 10-28°C (50-82°F).

How large an area does a QUAD pollinate?

- Depending on flower density 1 QUAD typically pollinates 1 -2 acres.

What happens to the QUAD after it has reached maturity?

- As QUAD colonies reach maturity they switch to producing only queen and male bees, each new queen will mate then disperse from the colony. Dispose of the QUAD after pollination season, to minimize potential pest and disease transfer from season to season.

Why are my bees not leaving the QUAD?

- If flying conditions are good and bees are not leaving the hive, it typically means the colony has been damaged in placement or shipping and the bees are busy doing repairs, usually this lasts no longer than three days. Please contact us if the lack of activity lasts longer than three days.

Why are there clusters of bees on the ground around my QUAD?

- This is a normal occurrence caused by queens mating or newly mated queens attempting to start new colonies.

Why are there dead bees around the hive?

- Dead bees immediately around the hive are typically an indication that commercial honeybees or competing species of commercial bumblebees are positioned too close to the QUADS and the bee's have died protecting their colony. Please contact us if you notice high numbers of dead bees.

For additional information and pricing please contact Koppert Canada Limited at:

Phone: 1-800-567-4195

Email: orders@koppert.ca or contact your Technical Consultant today



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