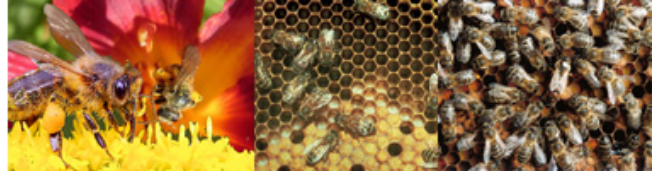


# POLLEN PELLETS





## Honey Processing Toolkit



### POLLEN PELLETS

#### 1.-Propolis Extract General Information



The pollen is collected by the bees and transported to the beehive to be stored in the alveoli near the brood area, where it undergoes a fermentation process, as forming the bee bread. It is used as food by the adult bees, mainly at the phase of the royal jelly and wax production and supplied to the larvae during the last three larvae feeding days.

Bee pollen is obtained through pollen traps set up at the entrance of the beehives. During the trapping, pollen trapped is stored in clean drawers for one or two days depending on the type of bee traps and climatic conditions. It is transferred from the drawers to buckets up to 2,5kg capacity and stored in freezer until it will be processed. When directly delivered to the enterprise, it can undergo pre-cleaning before being frozen. Basically, the pollen contains water, proteins, lipids, sugars, fibers, mineral salts, amino acids and vitamins. However this composition varies according to the origin of the pollen. Because its high nutritional value, the pollen is used as feeding supplementation. Pollen can be marketed added to the honey, dehydrated (3-5% moisture), in natura (frozen), in capsules or tablets. It can be also marketed as bee bread (frozen).

## 2.-Pollen Pellets Processing Details

### Pollen Pellets Processing Details



#### A.-Reception

The pollen will be received in plastic buckets (food degree), from which the capacity should not exceed 2.5 kg to avoid the formation of pollen clots due to the excessive volume associated to the moisture.

#### B.-Cleaning

When arriving to the processing room, the pollen is subjected to pre-cleaning, by removing the rough impurities with tweezers.

#### C.-Storage

In sequence, the pollen is stored for at least 8 hours at freezing temperature (-17 °C) to kill the insect eggs.

#### D.-Drying

Because the bee pollen is a hygroscopic product susceptible to the growth of fungus and yeast, it should be dehydrated just after freezer storage in a forced hot air chamber at 42°C until reaching a moisture of 3-5%. special equipments are being developed by some brazilian companies to dry fastly and keeping better the pollen quality. The pollen processing room should be provided with equipment to remove the excessive moisture from the environment.

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#### E.-Final Cleaning

After drying, a final cleaning takes place either manually or with equipments in a room with low air humidity. Pollen pellets should be keep integral, because their better commercial value.

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