



Master Beekeeping Program

Lesson 10 – Nectar Pollen, Queen rearing and Honey Labeling



Concentration of Sugar in Syrups

Average concentration of sugar in Nectar: 30-40% sugar or 60 -70% water

Average concentration of sugar in Honey: 87-98% sugar or 2 - 13% water

Feeding Bees

Sugar Concentrations

Spring 2 parts water to 1 part sugar (approximately 30-40% sugar) close to nectar

Fall/winter 1 part water to 1 parts sugar (approximately 90% sugar) close to honey

Pollen

Pollen ranges from:

- 8 to 40% Protein
- 15 – 45% Carbohydrate
- 1-15% Lipids

Honeybees get 100% of their protein for brood production and metabolism from Natural Pollen, Pollen Substitutes or Pollen Supplements

Queen Rearing

Simple ways to raise queens

- Forcing a queen
 - Place frame of eggs, frame of pollen and frame of honey in nuc box or hive body.
 - Add nurse bees from original hive.
 - Bees in new box will realize they are queen less and start raising queen.
 - Use new queen to re-queen other hive or start new hive.
- Swarm cell queen
 - Place frame(s) with swarm cell(s) in nuc or hive body with enough bees to cover two frames.
 - Allow cells to hatch.
 - Use new queen to re-queen other hive or start new hive.

- Grafting
 - PSBA has had classes on grafting and will in the spring/summer months
 - Not as intimidating as it seems.
 - Just hatched larvae are moved to artificial queen cups and put in queen less hive.
 - Bees will feed and draw queen cells.

Honey Labeling

Washington State law requires that honey be labeled with the following information:

- Identification of the product (“honey”)
- Name and address of the producer
- The net weight and grade of the honey.

Notes:

Resources Online:

PSBA website:
www.pugetsoundbees.org
WSBA website: www.wasba.org
National Honey Board: www.nhb.org
Bee Informed:
<http://beeinformed.org/>
Honey Bee Suite - Rusty Burlew:
<http://www.honeybeesuite.com/>

The Practical Beekeeper-Michael Bush: <http://www.bushfarms.com/bees.htm>
Scientific Beekeeping - Randy Oliver: <http://scientificbeekeeping.com/>
WSU Diagnostics lab: <http://entomology.wsu.edu/apis/diagnostic-lab/>
Apiary Registration form: <http://agr.wa.gov/PlantsInsects/Apiary/>
WA State Selling Honey guide:
<http://agr.wa.gov/marketing/smallfarm/DOCS/3-SellingHoney.pdf>
NHB Honey labeling guide:
<http://honey.com/honey-industry/honey-testing-and-regulations/honey-labeling/>