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

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/
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/