Selecting Apiary Site
- Need constant supply of
  - Nectar and Pollen
  - Water (within ½ mile)
- Air drainage/wind break
- Access 24/7
- Bears
- Livestock
- Hidden
  - Away from high traffic areas
  - Orem city code: 10 feet from property line

Bee Water Sources
- Chicken waterer with stones
- Shallow pan
- Rock wall
- Broken sprinkler
- Neighbor’s pool or bird bath

4 Principles of Productive Beekeeping
- Every colony must:
  - 1. Be protected in equipment with removable frames and located at good apiary site
  - 2. Have a young, prolific European queen
  - 3. Have adequate honey and pollen stores
  - 4. Be monitored for diseases and mites, but treated ONLY when necessary

Moving Bees
- 3 miles for 3 days
- Dark or cold
- 10 inches/day
- Can’t move bees to the other side of your yard easily

Hiving a Package
- Supplies:
  - 1 lid, 1 bottom board
  - 1 box
  - (10) frames
  - Candy to release queen
    - Or sugar sprayer
  - Feeder
  - Sugar syrup or honey
  - Pollen replacement (?)
Hiving a Package: Timing

- Bees need to be in the package at least 2 days, but less than 5 days
- Hive at dawn or dusk
- If cold weather, store bees
  - Dark ventilated place
  - Spray with sugar syrup every 4-6 hours

Video: How to Hive Bees

Releasing the Queen

- CAUTION: Queen might fly away (There went $25!)
- Slow release method
  - Candy plug
  - Sandwich queen cage between two frames
- Direct release method
  - Spray queen with sugar syrup
  - In the hive, remove staple and peel away screen
  - Let queen walk onto a frame.

Managing Package Colonies

- We do this part for you if you are buying nucs
- GOAL: Build a strong, 2-story colony for wintering

Day 1 after Hiving

- Check feeder to see if bees are getting syrup
  - If some is gone, they are probably eating it
- Do not disturb bees
- Barn Hive Feeder

4-7 Days Later

- Brief Colony Inspection
- Use smoke
- Look for queen acceptance (EGGS)
  - Don’t panic if it takes 10 days to see eggs.
- Feed syrup until bees start capping over honey cells
  - This means there is an excess
- Replace any fermented syrup
Inspect bees every 7-10 days

4 Things to look for in inspections

1. Check bees and brood (EGGS)
   - Bees will decrease until first batch of brood emerges

2. Feed: Sugar and Pollen (?)
   - Honey best, then sucrose, worst is high fructose corn syrup
   - Spring
     - Light syrup
     - Mix 8 ½ cups sugar with HOT water to make 1 gallon
   - Fall
     - Heavy syrup
     - Mix 17 cups sugar with HOT water to make 1 gallon

3. Provide room for expansion
   - When bees start working on outer 2 frames (80%), add the next box
   - Prime new box with frame of honey

4. Can harvest honey above 2nd box until Labor Day
   - OR let it stack up and harvest all at once.

Pollen Patties

- Pollen substitute
  - Early spring
  - Mixture of soy flour, dried milk, and brewer’s yeast
  - Patties or Powdered
  - DIY recipes online

Wintering Colonies

- Goal: 2 deep boxes (3-4 medium)
- Want it to weigh about 100 pounds
  - If not, feed heavy syrup until it does
- Put honey in right spot in hive
  - Top Box: 3 empty-ish frames in center; 7 frames honey around
  - Bottom Box: 6 frames brood in center; 4 frames honey around
  - Bees will usually do this.
Wintering Colonies

- Add inner cover mid-Oct, if using
- Don’t need to wrap
- Cleansing flights on warm winter days
- Colonies with older queens (2 years +) will likely die over the winter.
- Stay out of the hive.

Year 2: Spring

- This is One Management System (There are MANY)
- Divide to maintain colonies
  - When start seeing queen cells

Month Inspection

- Warm weather: bees flying
- Feed pollen and honey or light sugar syrup
- If dead, take equipment back for cleaning
  - Can use honey stores as bee feed
  - If there is no Foulbrood
- Repeat feeding as needed
  - Most likely time for colony to die is Feb-Mar
- Avoid disturbing bees (Barn Hive)

Mid-April Inspection

- Clean bottom board
- Look for 3-6 frames brood
- Feed if necessary
- Check for varroa
  - Sugar roll method
- Inspect 10 days later, watch for queen cells to cue dividing

Diagram of Divide to Maintain Model
How to Divide

- One of many methods
- Requires strong, spring colony 2 boxes deep
- 4 days before new queen arrives
- Put 5-6 frames brood in each box
- Assemble queen excluder between boxes
- In 3 days, look for eggs
- Divide and add queen to egg-less box
- If your boxes are all the same size, add lid and bottom to one of your boxes to start a new hive.

Introduce Queen to Divide

- Slow-release method (candy plug) recommended
- Push-in cage method
- How to tell if bees don’t want a new queen

After Dividing

- Inspect both colonies 5-7 days later for eggs and larvae
- Add box if necessary
- Inspect every 7-10 days like in year 1

Varieties of Honeybees

- European
  - Italian: Brown/orange bands
  - Carniolan: (Slovenia) dark color
  - Caucasian: (Caucus Region) darker color, propolis

- Stock Lines:
  - MN Hygienic (from Italians): Remove diseased larvae
  - VSH (Italian + Carniolan): Decrease varroa. Not tested for other disease resistance
  - Russian (from Carniolan): Resistant to varroa
Africanized Bees

- Different from African Bees
- Brought from Africa to Brazil and spread
- Very good at defending nest
- Can be managed in full gear
  - Dangerous in cities, esp. to penned animals
- Swarm + after-swarms
- Abscond often
- Don’t store enough honey for hard winter

Report on Convention

- Sue Coby
  - Of all places in the world I’ve been looking at bees, we still
    have the best stock.
  - We’ve lost 25% of gene alleles
- Frank and Sheri Pendall
  - Queen breeders
- AHPA Association Darren Cox
  - Beekeeper of the Year
  - Logan

www.ucanr.edu
Pre-Columbus