Supplemental Feeding Practices

With practice, it is possible to tell by hefting the bottom board on one side of the hive if colonies are light. They may need to be fed a 50% (1:1 by weight) sugar syrup. Since it is usually too cold for bees to fly at this time of year, colonies will need to be fed individually using division board (frame), hive top or pail feeders, filled baggies on the top bars with a spacer rim or an inverted jar placed over a hole in the inner cover.

To give bees a head start in brood rearing, feed the bees a pollen supplement or substitute at this time. Many commercial formulations are available, as well as recipes for homemade pollen supplements/substitutes.

Later in the spring, if the weather conditions discourage foraging, you may need to supplement the bees with sugar syrup and/or a pollen supplement to keep the bees alive and to ensure that brood rearing continues.

Additonal Resources:
Ontario Beekeeping Manual
OBA TTP Spring Checklist
Honey Bee Diseases and Pests (CAPA)
IPM for Healthy Bees (CHC)

OBA Tech-Transfer Program
The mandate of the TTP is to conduct research for Ontario's beekeeping industry, to facilitate a honey bee breeding program in Ontario and to transfer information, skills and methodologies to the beekeepers.

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Information provided and printed with permission by Phil Laflamme, Highlands Honey.
For Colonies that are alive but “weak” (only a small cluster = 1-2 frames of bees)

If the colony is queenless (no eggs, brood or queen), you can shake the bees into another colony, first making sure that there are no signs of severe brood diseases in the weakened hive.

If the colony is queenright (eggs, brood):

Option 1
- reduce to a single brood chamber if a double
- close off the top entrance to reduce robbing
- move cluster frames to the middle of the box
- move distant honey frames closer to cluster
- leave entrance reducer in place
- boost population by donating nurse bees
- eventually add sealed frames of brood (if bees can handle covering the brood area)
- keep hives insulated until population grows

Option 2
Combine with another colony:
- reduce to a single brood chamber if a double
- select a strong colony
- remove strong colony’s lid and inner cover
- place full sheet of newspaper on top bars
- make several slits in the newspaper
- put queen excluder on top of newspaper
- place weak queenright colony on top
- individually feed weak colony
- wrap colony ensuring weak colony is insulated
- leave alone for at least 1 week

After 1 week:
Check weak colony for eggs, brood, queen
- if queenless, shake bees out, remove top box
- if queenright, rewrap hive, wait for buildup

Once the weak colony has strengthened:
- keep as a two-queen colony until main honey flow when queen excluder can be removed
- split into two colonies (remove top colony and place in a new spot with bottom board and lid)

For Colonies that are alive & “normal” (a moderate cluster = 3-5 frames of bees)

If the colony is queenright (eggs, brood):
- reverse brood chambers if a double brood chamber and only if bees are all in top box
- check the brood for disease, laying pattern
- centre cluster if needed
- move feed frames closer to cluster
- individually feed colony if stores are low
- close off top entrance to prevent robbing
- leave entrance reducer

For Colonies that are alive & “strong” (a big cluster = 6+ frames of bees)

- remove double brood chamber if brood and bees in top box
- remove entrance reducer
- remove capped brood frames if queen needs space to lay, replace with empty, drawn frames or foundation frames if there is a nectar source
- exchange “strong” colony’s spot with a “weak” colony mid-day when foragers are flying
- don’t feed syrup or pollen unless absolutely necessary, too much resources will cause the colony to swarm
- put on honey supers if early flows happens (maple, willow, dandelion)
- remove bees and brood for splits and nucs if queens are available

Warning!
- strong colonies may have higher varroa levels
- they may starve during dearth or bad weather
- there is a high potential for swarming

For Colonies that are dead

If you find a dead colony, it might be due to:

Starvation
- light in weight, bees with heads in cells
Mite Damage
- few bees, deformed wings
Queen Problems
- queen has died, there are queen cells, drone cells
Excessive Moisture
- mold, moisture, dampness
Dysentery
- fecal stains on top bars, front & top entrance
Brood Diseases
- AFB, EFB
Robbed out
- Chewed cappings, residue at entrance
Rodents
- chewed combs, nest materials

See the OBA TTP Spring Checklist for a more in-depth survey for colonies that have died

What to do with a “deadout”
- brush dead bees off frames
- scrape the bottom board clean
- scrape inner cover clean
- any leftover honey frames can be given to alive colonies if there are no indications of severe brood diseases
- provide entire brood box to a “strong” colony that needs space for eggs, food and bees
- “retire” older frames (darker comb) and replace with new frames with foundation
- store unused frames inside a closed cold storage space, block bees and rodents from entering empty hive
- cleanse frames and box using Acetic Acid method