Starting your new hive

When you introduce a new colony into brand new equipment, it is a lot of work for the bees to get the comb made and to have enough time to fill it with honey before winter. As a beekeeper in an area with a winter, you need to make sure that your new colony is well established before winter sets in, so your bees have the best chance of survival. This handout demonstrates how to maximize comb production when starting a colony on foundation.

1) Understand what space you will be leaving for the bees for the winter (the bees’ part of the hive)

2) Make sure that this part of the hive is drawn out (honey comb is made) as quickly as possible.
ESTABLISHED COLONY IN PRODUCTION

For us
(Excess Honey)

For the bees
(Brood Nest)

Ideal arrangement of colony in late summer. The bees have their part full, and well arranged.
INSTALLATION

Initial placement of nuc/package in hive
Cold Weather

Initial placement of nuc/package in hive
Warm Weather

The bees want to build upwards immediately, but if it is cold, the cluster must be able to reach the feed. Once it is warm (60s), you can move the feed away from the cluster.
COMB / WAX PRODUCTION BEGINS

The bees build wax above and immediately next to the cluster first.
COMB / WAX PRODUCTION CONTINUES

Continue to feed as the brood nest expands and the colony grows to draw out and cover more frames.
If you continue to add new boxes, the bees will continue to fill above the brood nest and move up, often ignoring the frames to the side. The bees will not be likely to draw out the comb on the outsides of the bottom boxes. You do not want empty space in your colony in winter – the bees can cluster on an empty frame and starve. Your goal is to have the bottom boxes full like the hive on the left.
MANAGING FOR WAX PRODUCTION

To optimize wax production, move frames that are drawn, or full of honey and nectar down and/or to the outside. Note that the brood frames remain untouched.
BROOD NEST SUFFICIENTLY FILLED

The feeder stays on the colony until the bottom boxes are sufficiently filled out, or the bees stop taking the feed, whatever happens first.

Growth after arrangement

Brood nest sufficiently filled

Remove feed, add honey super
Once the bottom boxes that make up the brood nest are filled, you can focus on supers for honey production. You want to make sure that these are filled with honey and not sugar water, so you don’t feed while honey supers are on the colony. Continue to add supers while the colony is growing. It may take the whole season to fill the bottom boxes, and you may not have honey this year.
IDEAL ARRANGEMENT IN FALL

For the bees (Brood Nest)

For us (Excess Honey)

If the honey is capped, the extra boxes can be removed and the honey extracted. As the weather cools, the bees will slow / stop raising young, and the bees will backfill the broodnest with honey. By winter, most of the bottom boxes should be filled, and the boxes that you are leaving for winter should be heavy.