

Three Rivers Beekeepers  
Workshop July 10, 2012 at 7:00  
Missouri Extension Center

#### Workshop Purpose:

The goal is to provide early spring strong nucleus colonies in line with the TRB Queen and Nuc Initiative. Our climate prohibits raising queen for use in early spring. In an attempt to break the cycle of importing bees and queens from outside our area, the TRB Queen and Nuc Initiative was commenced. This workshop is designed to provide instruction on making and Overwintering Nuc's for your use or for sale to new beekeepers next year. We encourage the use of local queens that are available in the summer months. This technique takes advantage of these conditions to produce inexpensive but robust colonies.

#### What is it:

In late July you can make up nucleus colonies from your current hives and either raise or purchase queen's or queen cells. These colonies will grow and establish themselves during the months of August and September so they are strong enough to survive the winter. In the spring these colonies come on very strong and you should be prepared to place them in deep boxes when the dandelions bloom.

#### Timing- Late July

The best time is late July as August will be too late as the bees will not have sufficient time to organize their hive, and build up stores and the appropriate number of bees for winter. You can do this sooner, but the problem will be that the bee's buildup and potentially swarm or they will get overcrowded.

#### Where are you getting your bees & brood from?

Think about which hives will be the donor hives. Good candidates are:

1. A weak hive that just is not doing well this summer. It probably won't ever do well until it is requeened. Since that is exactly what you are going to do (requeen this colony) it is a good candidate. Next year at this point it should be a great hive.
2. A very strong hive that is on the verge of swarming. By removing brood and bees from this strong hive you will reduce the swarming urge. Also at this time of year you are going into a nectar dearth, so cutting back on the population is less of a problem. This will also reduce the mite count.
3. Last choice is two medium hives.

#### Making up the Nuc:

Making up the nuc boxes is the single hardest part of the processes. Be prepared and organized before you start. Nuc boxes out and on the bottom board, have all the entrances screened up to keep them in the nuc. Know where you are going to place the frames, have the replacement frames ready (you need five frames for each nuc). When you get the brood chamber, look down between the frames to see where the bees are hanging out.

This is usually the top brood chamber. Two main points about taking the frames; go slowly taking the bees with the frames and make sure the queen is not on the frame. Start with an outside frame. This may be your honey frame; you want a full deep honey frame. Put that in the nuc. Go through the frames looking for a frame with lots of pollen. The pollen is often at position 2 or 3. Take a frame of pollen and put it in the nuc. Look for the queen and take the bees with the frame. Now look for a frame of brood. You want a frame that has open brood, with brood on both sides. This is also the frame most likely to have the queen on it. Again you want all the bees to go with the frame. If you are not going to move the nuc boxes to a new location, shake an additional frame of bees into the nuc. Remember to look for the queen first. The reason for the additional bees is because the older bees will fly back to the donor hive. Add open comb frames to back fill the donor hive and fill out the nuc box. Close-up the nuc box and the donor hive. Repeat as necessary to create additional nuc's.

If you have another location, a mile or so away, move the nucs to that location, so the bees don't fly back to the donor hive. Then you can remove the screened opening. If you do not have a remote location, you can shake in an extra frame of bees, and leave the nuc screened up for the night.

#### Frame Placement

For each colony add the following:

One frame of honey one frame of pollen one frame of open brood. Two frames of drawn comb. You can take these frames from a strong colony, realizing you are going to set that colony back a bit. That may be OK, since this is the summer dearth.

This is a perfect amount of brood. There should be some open cells of larvae which help keep the young bees from leaving the colony. The bees will not abandon open brood.

Also note there is bee bread around the edge. Be sure not to take the queen.

#### Adding the Queen:

Wait until the next day to add a queen or the queen cell. This will give the bees time to settle down and discover they are queenless. Add the queen cage in a way that the screen is accessible to the bees by gently squeezing it between two frames. Leave a frame out if there is not enough room. You can either leave the corks in the cage and manually remove the queen in five days, or remove the cork exposing the candy. Do not poke any holes in the candy. You want a SLOW release. Just like a package don't disturb them for five days. Then go back and make sure the queen is released. Check again in two weeks for eggs or open brood. For a cell rest the cup between two frames with the cell hanging down. The Queen will emerge, take a few days to mature and then take a mating flight. Do not disturb the hive. You can check for open brood and eggs after ten days.

#### Where are you going to get Queens?

We will be placing orders for Queen Cells with a Missouri queen rearer who has a solid reputation for producing quality queens. The queen's cells upon emergence will then mate with local stock of drones during their mating flights. We are looking for local stock that has adapted to our climate conditions.

Place the nucs on their bottom board somewhere where they are out of the afternoon sun. It is hard for bees to keep a nuc cool in the hot sun. For the first four weeks feed 1:1 sugar syrup, to stimulate the bees. This is important because there will be nectar dearth during August. Peek in the hive every week to see how they are doing. You will find the nucs are easier to work than full sized hives making them excellent learning tools. The two things you are looking for is a failed queen or the opposite, the hive has built up rapidly and is ready to swarm. If the nuc looks swarmy you can add another nuc box on top. You should see a nice frame of new brood by mid-August. Ensure you have an entrance reducer in place.

#### Fall Management:

Once the cool weather of September sets in you will want a lot of bees with about two frames of honey so they are ready for the winter. The cluster size should be about the size of a football. In mid-September, if the box looks light, feed 2:1 syrup. Assuming a normal fall, there should be plenty of Goldenrod pollen.

#### Over Wintering:

Place the hive out of the wind, ensure sufficient stores are on hand. I like to use a double deep with the cluster in the lower box and stores directly above it. In addition, I like to add a candy board or mush in early January. Keep the entrance reduced to about 1 ½ inches.

#### Spring Management:

Congratulations, your bees made it! The task now is to stimulate the bees for spring build-up so they are available to sell to new beekeepers or for your own use. If you are using them as replacements you can move them into a deep hive bodies. Make sure you get them into deep boxes early, because they are going to come on strong... way ahead of any packages. These bees are going to perform as well as your regular wintered hives.