Presentation for:
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Making Nucs for Colony Increase

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Hale's Honey

- Kevin and Kim Hale, owners
- www.haleshoney.com
- Located in Menifee County KY
- Currently wintering 110 Hives, will go to about 250 in spring and summer
- Winter losses: Average around 10% yearly
- Production of Honey, Nucs and Queens

What is a Nuc?

- Baby Hive
- 3-5 frames normally, can use a separate box or full size box divided into sections.
- 5 frame nuc the most common
- Can be one, two or more boxes

Why is creating nucs important?

- Prevent swarming
- Increase your number of hives
- Raise extra queens for queenless hive or re-queening unproductive hives
- Queen introduction
- Boost weak hives with brood or honey from nucs
- Nucs pull foundation really well, make extra comb to use in other hives
- Overwinter Nucs to replace winter losses
- **Need 1 Nuc for every 2 hives, you should try and maintain minimal 3 hives to help sustain your hives**

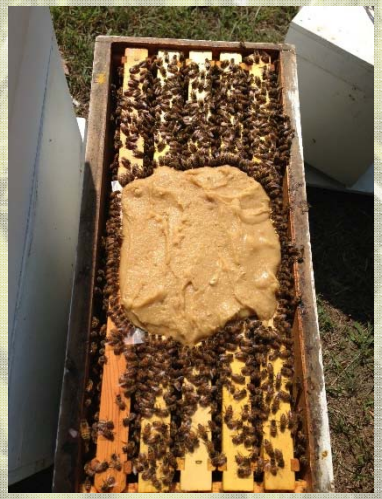
When do we create nucs?

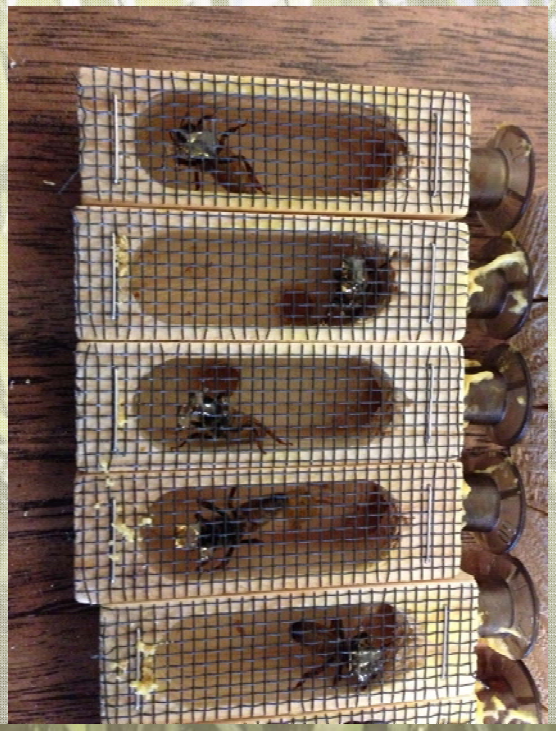
- Prevent swarming (April – May)
  - Depends on hive buildup and strength
- Whenever you discover swarm cells
- Create to increase your hive numbers in the summer
  - May - June (purchased queen or raise queen from eggs or queen cell)
- Create to overwinter against winter loss
  - July – first week August (purchased queen)

Nuc Management

- Nuc's expand quickly, they love to build up, chimney effect
- Feed protein patties and 1:1 syrup (keep them fed well)
- Use small entrances and robber screens
- Add second box of foundation when necessary
  - Move a frame of brood up into second box, forces bees to occupy that box to care for the brood
  - Place frame foundation in between brood frames in bottom box, bees will pull foundation quickly
  - When second box is full you can create another nuc or move the double nuc into a full 10 frame box or add a third nuc box
  - If nuc is super strong, you can remove frames of brood and bees to boost other colonies
- You can overwinter a nuc in two box hive

Feeding Nucs





Create Nuc from Purchased Queen

- Use 2 frames sealed brood, 1 frame pollen and honey, 2 frames foundation
  - **You don't want eggs, can't create queen cells without eggs**
  - If eggs present, bees may create queen cells and reject caged queen
- If introducing queen in queen cage, use painter tape over candy to slow queen release for 4 days
- Introducing queen with push-in cage is best method for acceptance
- Add 2 shakes of nurse bees from brood combs
- Screen front entrance for 24-36 hours
- Use a very small entrance
- Feed 1:1 syrup and protein pattie
- Check in 4 days for queen cells and remove if any are found
- Check in 4 days to see if queen released, if not release her
- Leave nuc alone for 14 additional days
- After the 14 additional days check and see if queen is laying

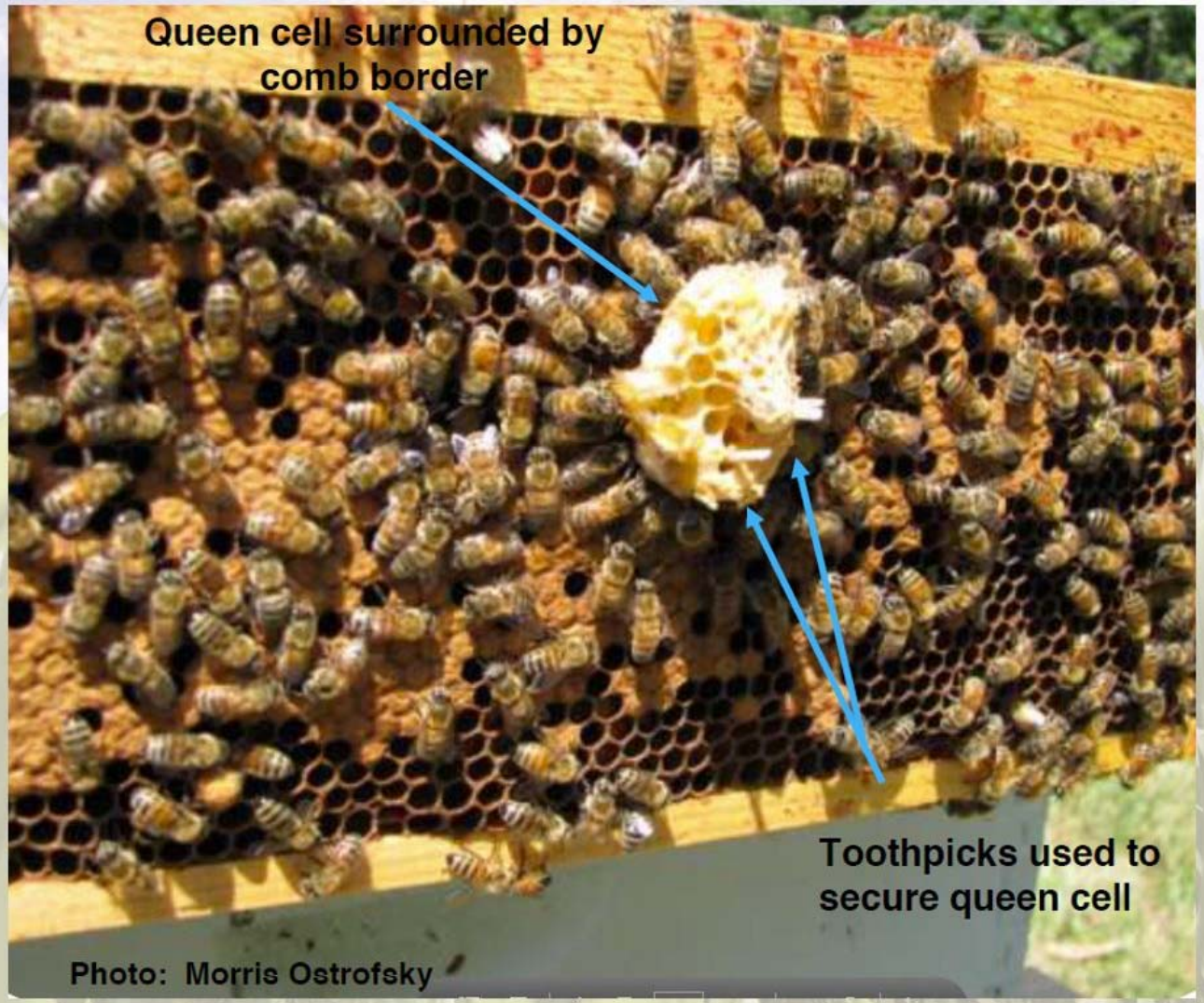
Push In Cage Queen Introduction

Swarm Cells

Create Nuc from Swarm Cells

- If you find a hive early with swarm cells
  - Break it down into nucs ASAP
- Use frame with 1-2 of the best looking swarm cells
- If you have multiple good swarm cells
  - Cut off cells and put in another nuc (toothpick method)
- Use another frame of brood if possible
- Use one frame of honey and 2 frames comb or foundation
- Add 2 shakes nurse bees from brood combs
- Have a very small front entrance and screen for first 24-36 hrs.
- On day 3 see if more nurse bees are needed, shake in more if needed
- Feed 1:1 syrup and protein pattie
- On about day 20 queen should be laying

Toothpick Method

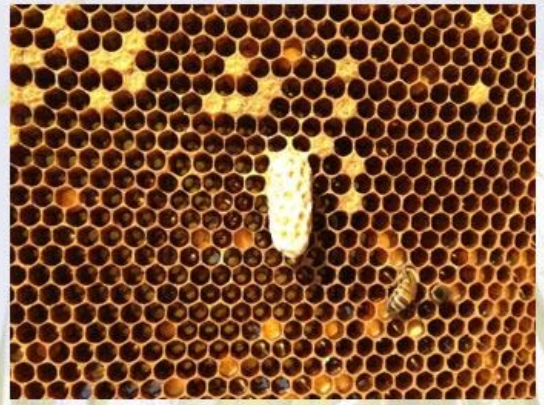


Queen Cells from Eggs

Create Nuc from Eggs

- Late May through mid July (June is the best month)
- Create from your best hive (locate and remove queen to safe area)
- Make the nuc midday while foragers are out
- 1 frame eggs and bees, 1 frame capped brood and bees, 1 frame honey/pollen, 2 frames comb or foundation
- Add 2 shakes nurse bees from brood combs
- Have a very small front entrance and screen for first 24-36 hrs.
- On day 3 see if more nurse bees are needed, shake in more if needed
- Feed 1:1 syrup and protein pattie
- Check in 4 days and remove any capped queen cells (they have not be fed good)
- Check in another 6 days and remove all but two of the best cells.
    - If you have several good cells, make additional nucs
    - Cut out cell and attach by toothpicks
- Check in 28-30 days from time nuc was made and see if queen is laying

Queen Cells



Create Nuc from Queen Cell

- Make the nuc midday while foragers are out
- 2 frames of sealed brood and bees, 1 frame honey/pollen, 2 frames comb or foundation
- Attach cutout queen cell to frame of brood 2”down from the top
  - Make indentation with thumb and place cell gently and attach with toothpicks
- Add 2 shakes nurse bees from brood combs
- Have a very small front entrance and screen for first 24-36 hrs.
- On day 3 see if more nurse bees are needed, shake in more if needed
- Feed 1:1 syrup and protein pattie
- Check on day 20 from time nuc was made and see if queen is laying
- **Note: You can also use the frame that has the queen cell and follow the same procedure as making a nuc with swarm cells**

Recipes

- **1:1 Sugar Water:**
- 2 gallon syrup
  - 10 lbs. granulated sugar
  - 5 quarts water
  - Heat water to very hot, add sugar and stir
  - Add 4-5 teaspoons of Honey B Healthy per gallon
- 5 gallon syrup
  - 25 lbs. granulated sugar
  - 12.5 quarts water
  - Heat water to very hot, add sugar and stir
  - Add 4-5 teaspoons of Honey B Healthy per gallon
  - Add one cap full of bleach (helps prevent mold)
- **Protein/Sugar Patties:**
  - 9 cups AP 23 protein powder
  - 3 cups sugar
  - Add enough 1:1 or 2:1 syrup to make consistence of peanut butter and form into patties on wax paper.

Recipes

- **2:1 Sugar Syrup:**
- 1.5 gallon syrup
  - 10 lbs. granulated sugar
  - 2.5 quarts water
  - Heat water to very hot, add sugar and stir
  - Add 4-5 teaspoons of Honey B Healthy per gallon
- 5 gallon syrup
  - 25 lbs. granulated sugar
  - 6.25 quarts water
  - Heat water to very hot, add sugar and stir
  - Add 4-5 teaspoons of Honey B Healthy per gallon
  - Add one cap full of bleach (helps prevent mold)
- **Sugar/Protein Patties:**
  - 3 cups AP 23 protein powder
  - 9 cups sugar
  - Add enough 1:1 or 2:1 syrup to make consistence of peanut butter and form into patties on wax paper.

Recipes

- **Hard Sugar Blocks:**
  - 1 quart water
  - 12 lb. sugar (24 cups)
  - 6 teaspoons Honey B Healthy
  - Five 7”x7”x1.25” cake pans or five 9” pie pans (makes five 3 lb. pans)
  - Heat water to boil, add Honey B Healthy, add sugar and mix, heat to 250 deg. mixing occasionally, remove from heat and let cool to 210 deg., stir quickly and pour into pans, let harden (don’t let it get to hard while cooling or you can’t pour it)
- **Hard Sugar/Protein Blocks:**
  - 1 quart water
  - 12 lb. sugar (24 cups)
  - 3 cups protein powder (I use AP 23 protein powder from Dadant)
  - 6 teaspoons Honey B Healthy
  - Five 7”x7”x1.25” cake pans or five 9” pie pans (makes five 3 lb. pans)
  - Heat water to boil, add Honey B Healthy, add sugar and mix, heat to 250 deg. mixing occasionally, remove from heat add protein powder and mix in quickly. Once mixed, pour into pans, let harden.