

Managing bees for honey production

**Steve Tipton
Meriden, KS.**



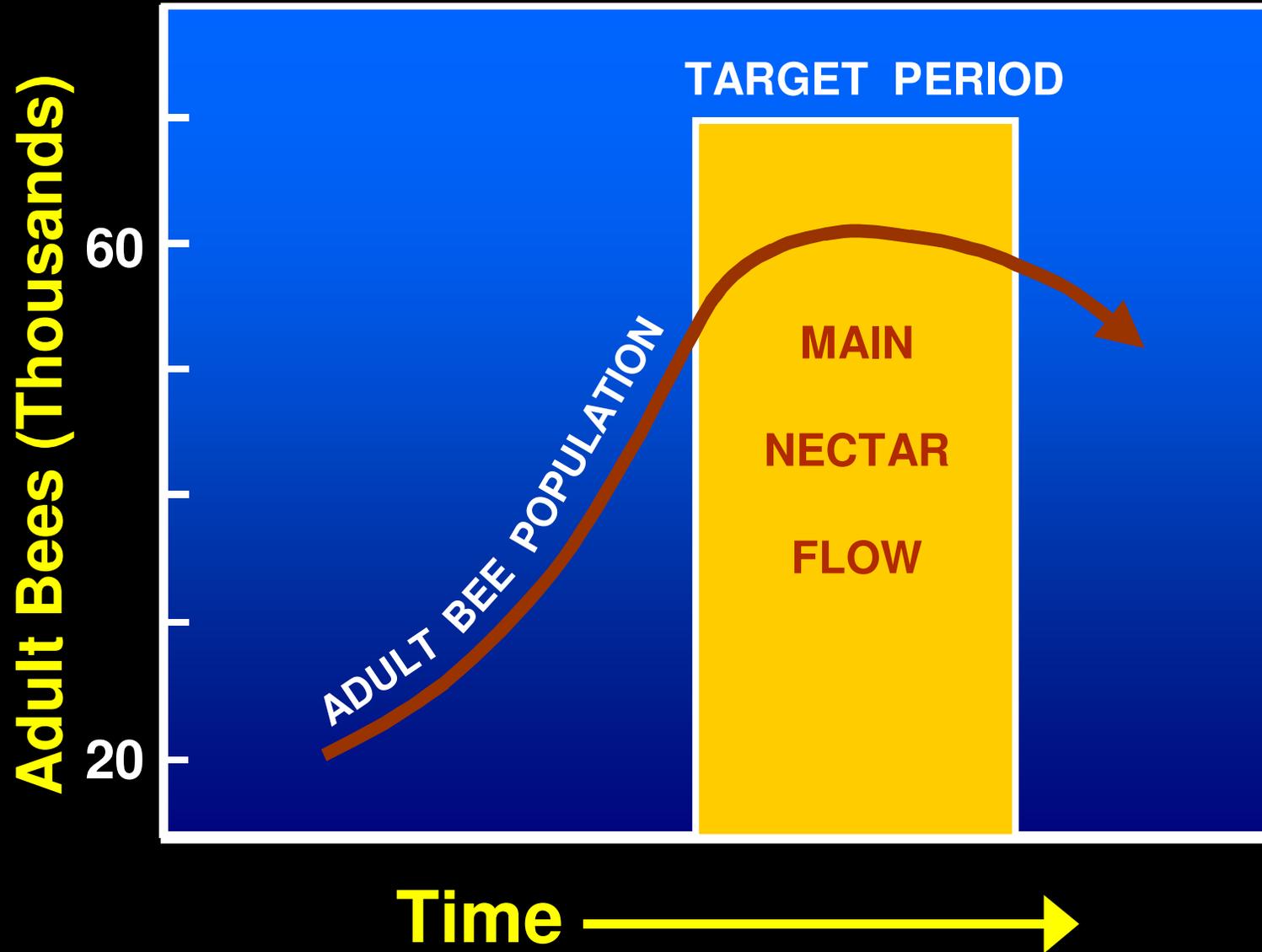
Bees are not domesticated livestock. Beekeeping is still the exploitation of colonies of a wild insect.

- **Do bees think or simply respond to stimuli in predictable ways?**
- **Anthropomorphism - an obstacle to successful beekeeping**
- **Learning to think like a bee**

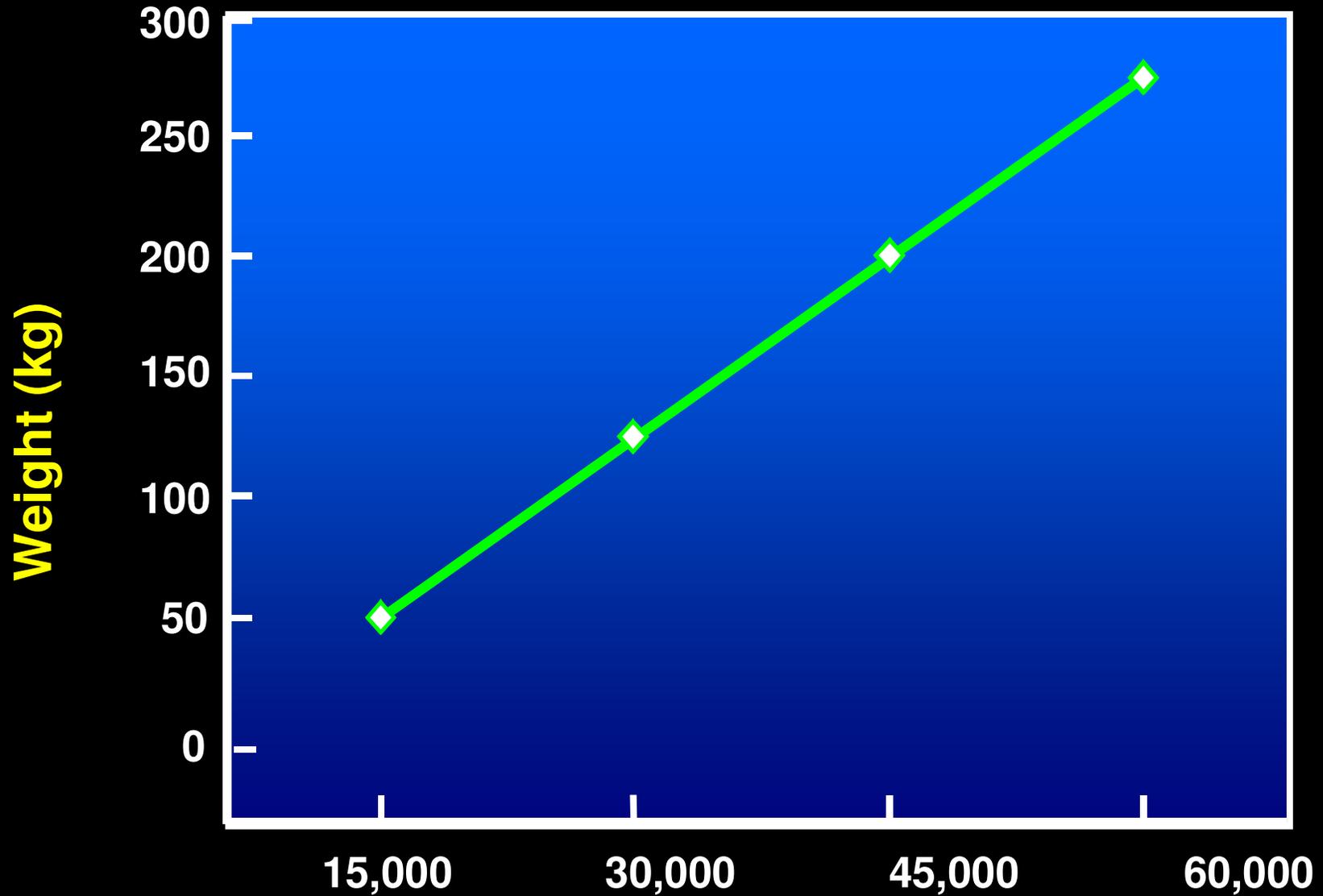
- **You can control**
 - **Location of hives**
 - **Adequate food stores for spring buildup**
 - **Quality of queen**
 - **Swarming**

To assist the bees in the production of honey.

COLONY POPULATION



HONEY PRODUCTION



Colony Population

C.L. Farrar (1937)

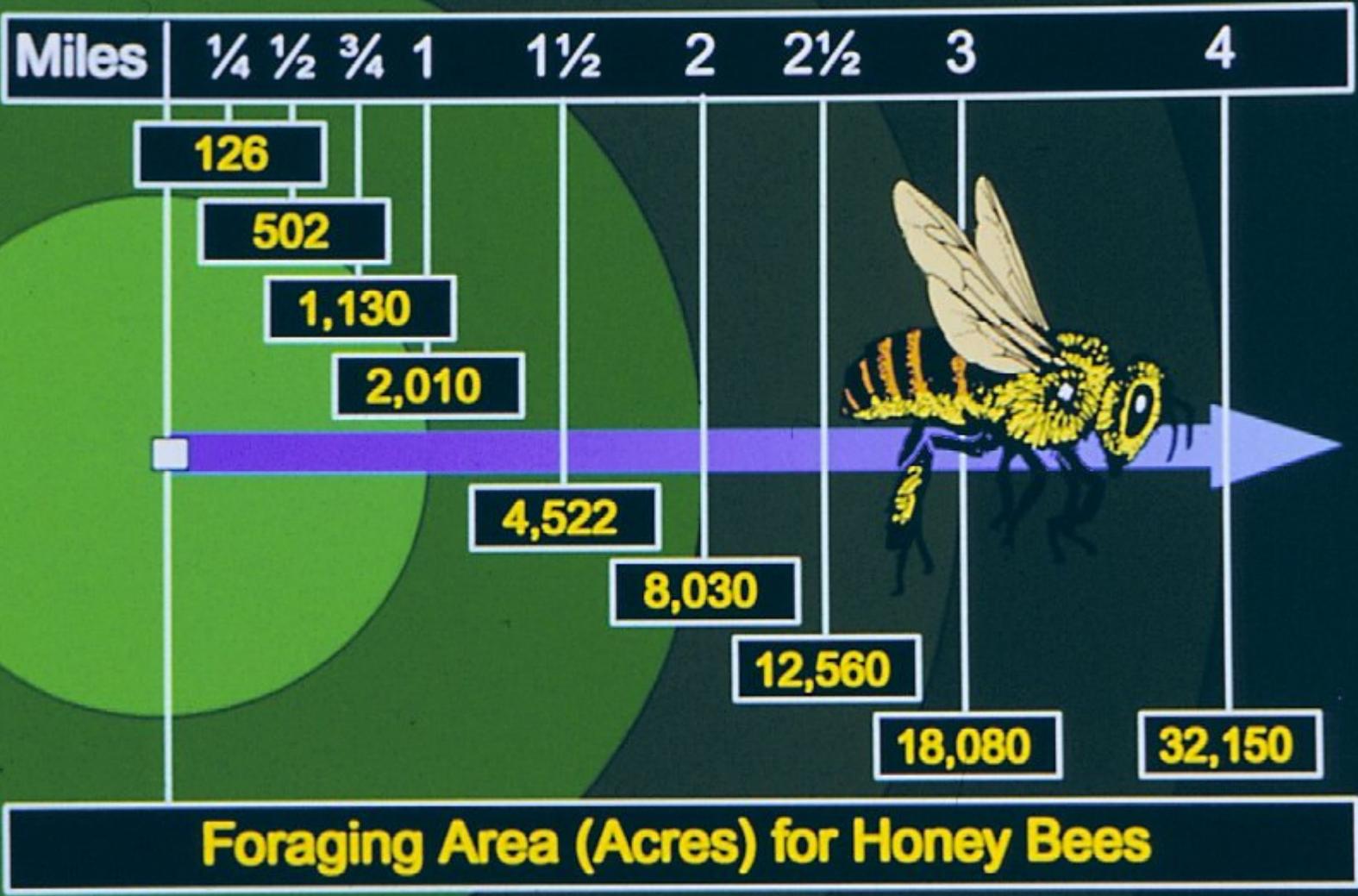
Building colony populations to coincide with the main flow

- a. Select apiary sites carefully
- b. Keep young queens in all colonies
- c. Feed bees to stimulate expansion
- d. Control diseases and pests
- e. Control swarming
- f. Divide strong colonies
- g. Equalize populations

Choosing Apiary Locations

- Nectar and pollen resources
- Water source
- Southern exposure
- Windbreak
- Access
- Livestock
- Pesticides use
- Vandalism and theft







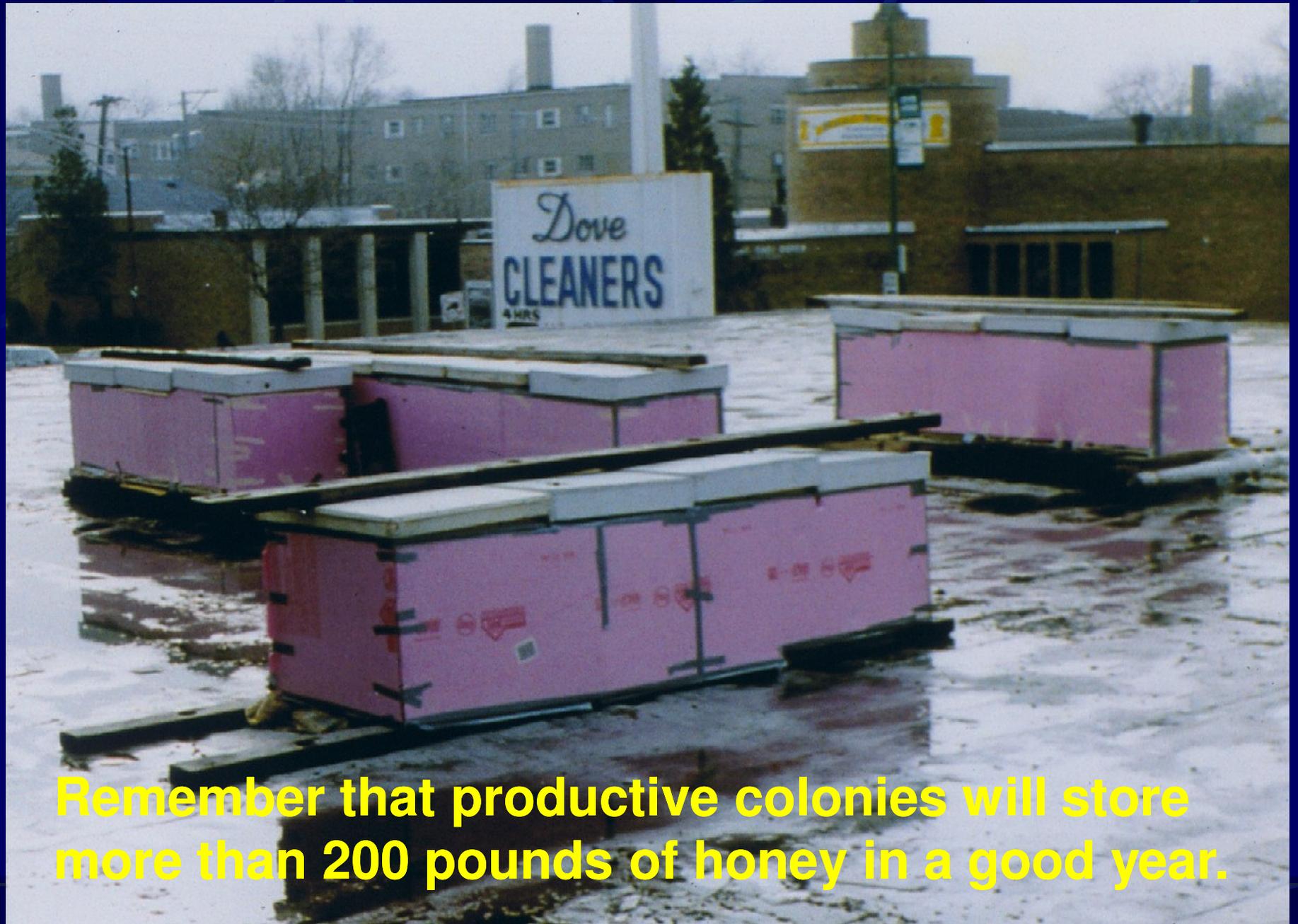
**Good locations have a variety of pollen
and nectar sources**



In choosing apiary locations, consider all seasons. Note southern exposure, windbreak, and drainage.



Beekeeping in the city – out of sight, 7 foot high fence to force bees to fly above humans on adjacent properties, provide water, control swarming, work under ideal conditions.



Remember that productive colonies will store more than 200 pounds of honey in a good year.



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Morning shade reduces productivity. Shaded colonies begin foraging later than colonies exposed to morning sun. Mid-day shade may be beneficial.



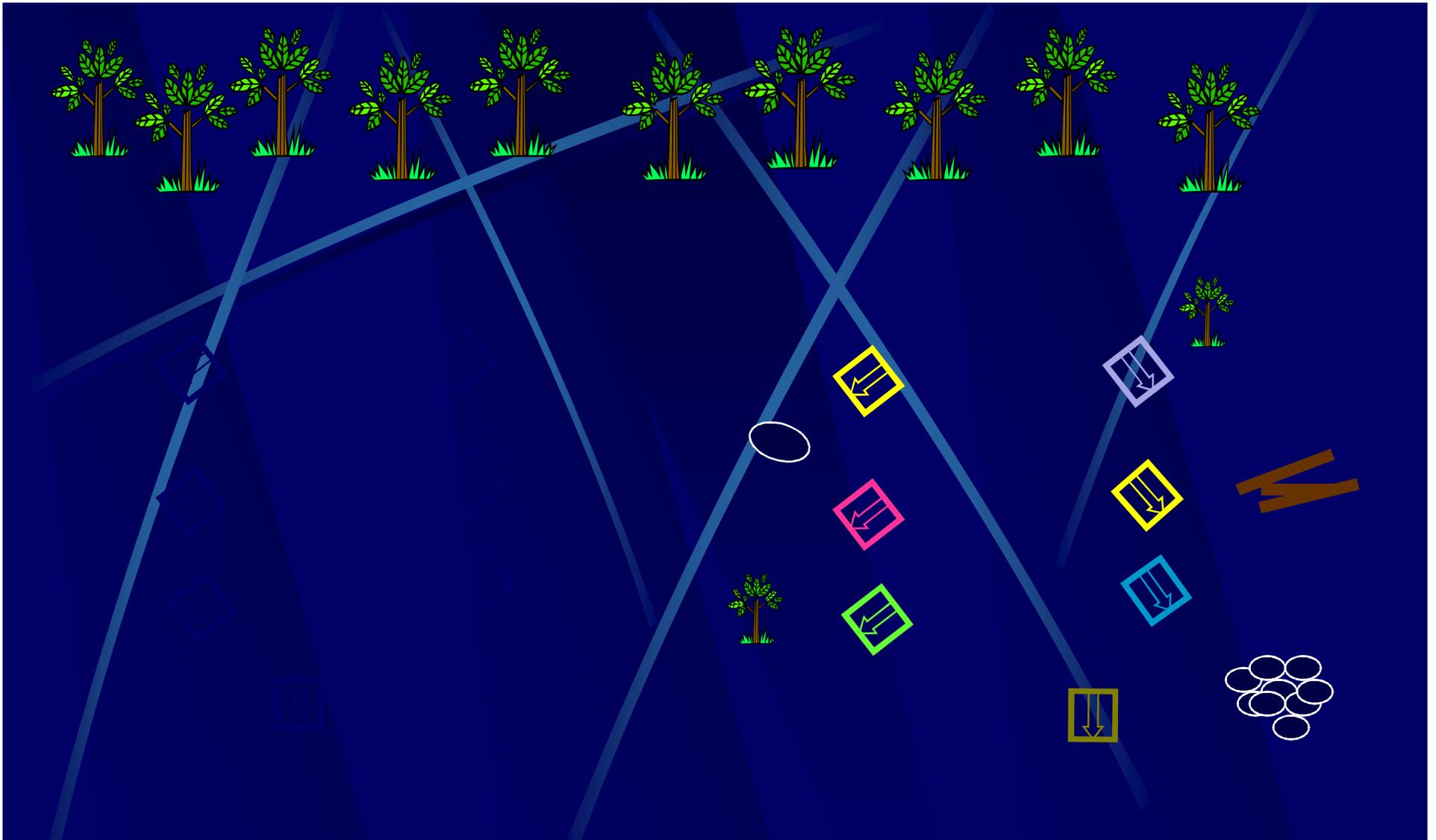
Exclude cattle and horses



Easy access is an important consideration



**Drifting reduces overall production
in an apiary**



Use color, orientation, distance between hives, and landmarks in apiary to reduce drifting



Abandoned farmsteads make good apiary locations. Beekeepers usually provide landowners a small amount of honey for apiary locations.

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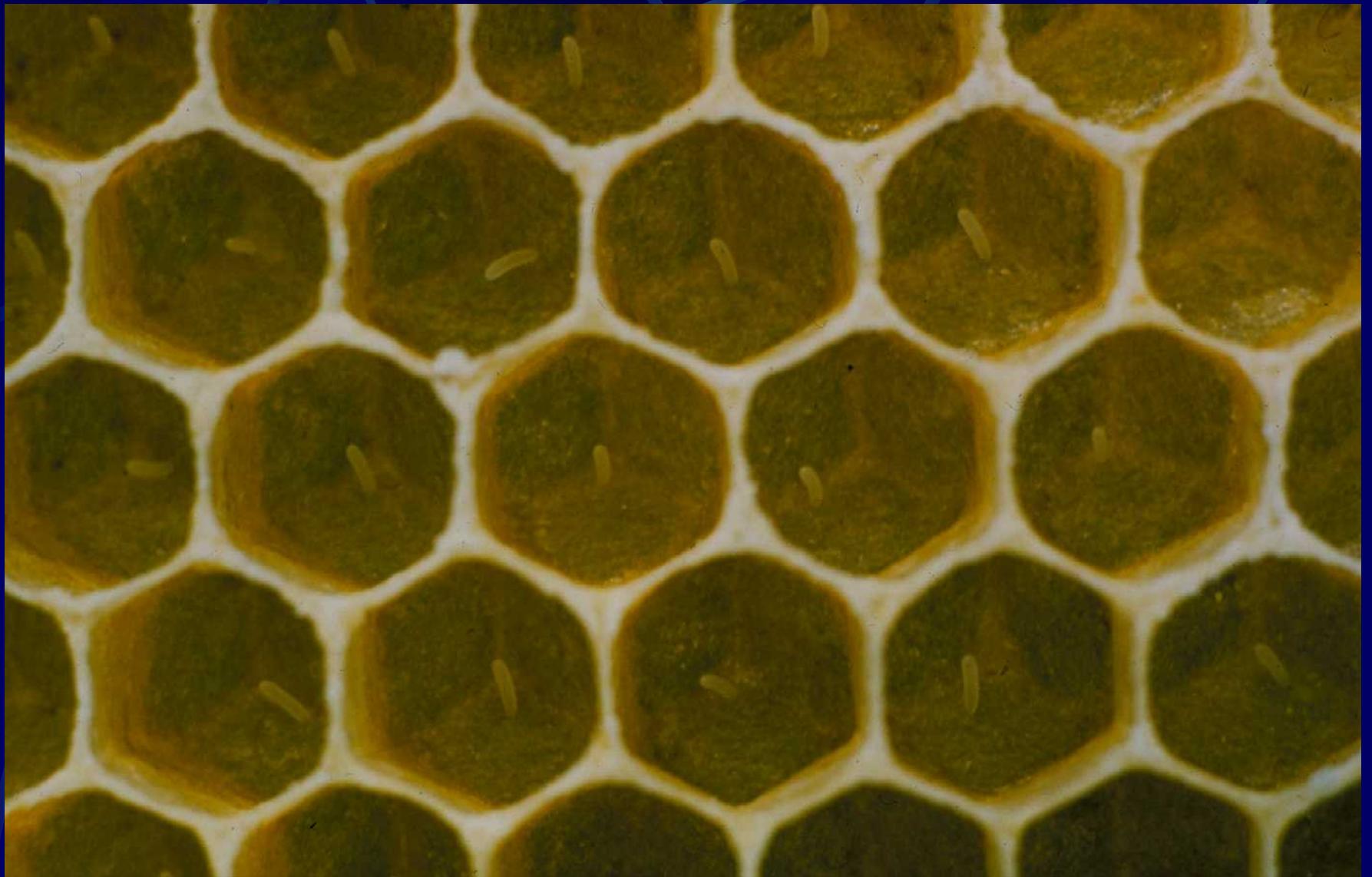


Techniques for requeening colonies:

~Fair - Remove old queen, place new caged queen in hive, let bees eat through candy to release her.

~Good - Remove old queen, place new caged queen in hive, release in 4 days or when bees are no longer showing signs of aggression to her.

~ Best - Make a nuc above a double screen with 3-4 frames of brood and bees, introduce queen to nuc, after a month find and kill old queen, then remove double screen.





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Beekeepers should strive to have 10-14 frames of brood in their hives at the start of the main flow. In eastern Kansas, the main flow typically begins around June 10. To achieve the optimum colony population, colony strengths should be as follows:

Frames of brood needed to achieve maximum populations for the main flow.

April 15	3
April 22	4
May 1	5
May 10	6

Feeding Bees

- **Why feed bees?**
- **Add food reserves**
- **Stimulate queen to lay**
- **Stimulate nest cleaning**
- **Draw foundation**
- **Stimulate bees to lavishly feed newly grafted queen larvae**

What to feed:

- 😊 Honey
- 😊 Beet or cane sugar (sucrose)
 - 😊 1:1 to stimulate
 - 😊 2:1 to add weight
- 😊 High fructose corn syrup
 - 😊 42 and 55
 - 😊 diluting

Do not feed bees

- ☹ Karo syrup
- ☹ Brown sugar
- ☹ Powdered sugar
- ☹ Molasses
- ☹ Honey from store
- ☹ Any other sweetener

Types of feeders

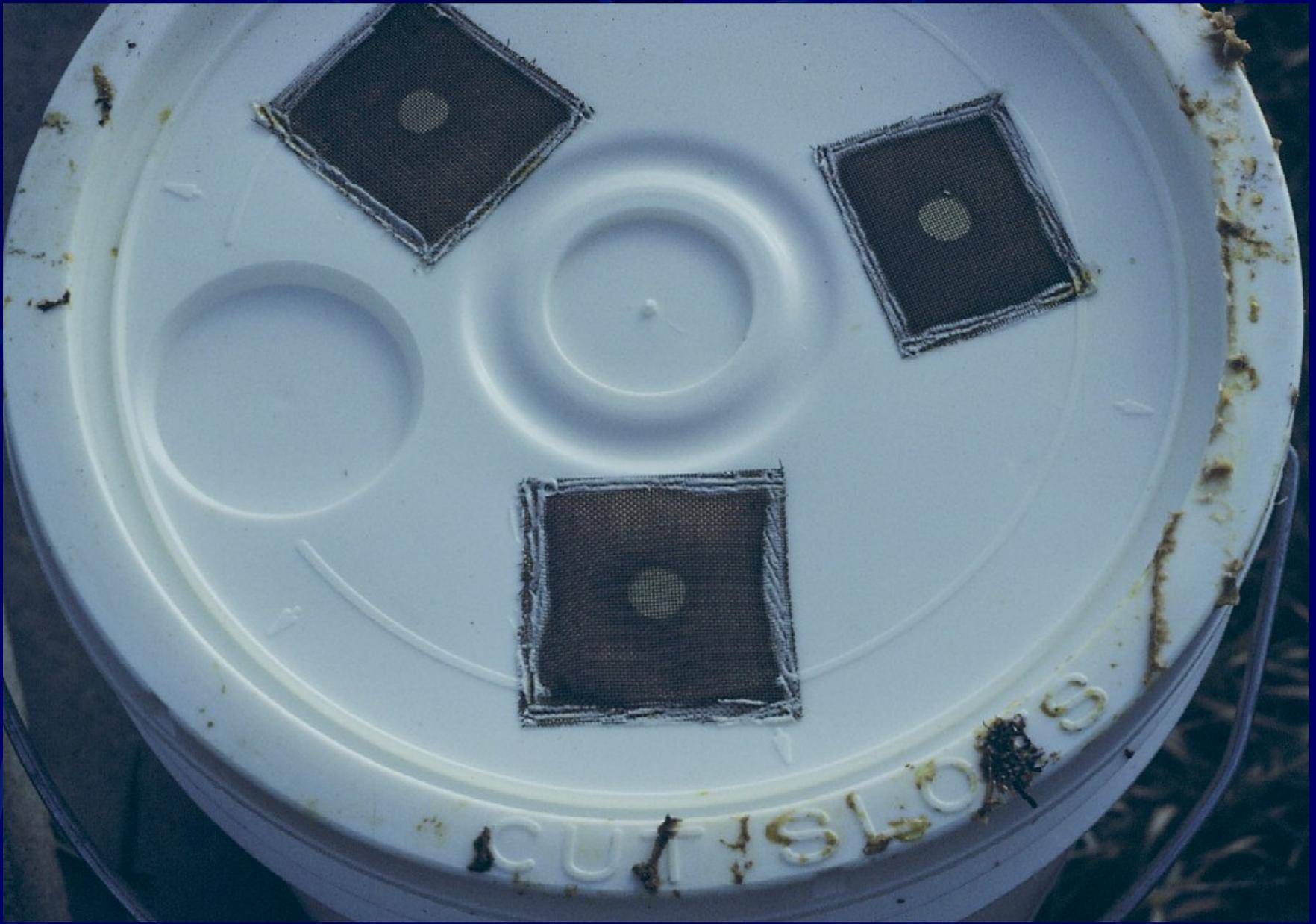
- **Division board**
- **Boardman or entrance**
- **Inverted pails or cans**
- **Nipple jars**
- **Spray syrup into combs**
- **Open feeding**
- **Miller-type feeder**













**Only feed honey from your own
disease free hives**



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Control the swarming impulse



Factors that contribute to the swarming impulse

- ✓ Colony size
- ✓ Forage abundance
- ✓ Brood nest congestion
- ✓ Worker age distribution
- ✓ Reduced transmission of queen substance
- ✓ Age of queen

Swarm control measures

- Adequate room
- Requeening
- Equalizing
- Reversing
- Dividing
- Demaree method



The best swarm control measures are preemptive action rather than reaction.





Dividing and equalizing colonies

Moving brood and bees among colonies in an apiary

- Any colony will accept brood from any other colonies
- You can exchange positions of strong and weak colonies at mid-day during a honey flow to trade field forces
- You can exchange the position of a nuc and a hive
- preparing to swarm

Techniques for dividing colonies

- Find queen, divide brood and bees equally, move hive without queen to a new apiary , introduce queen to new hive
-  Shake bees from 3-4 frames of brood, place in hive body and position above queen excluder on parent colony, set on new bottom early next day, move to new apiary , introduce new queen
- Make up nuc above double screen, introduce queen, just before honey flow, move nuc to location of strong colony and reposition the colony in the apiary

Letting divides raise their own queen
often results in an inferior queen.



“Poorly reared queen of productive stock will be inferior to
well-reared queens from less productive stock.”

C.L. Farrar



Credits:

*Dr. Marion Ellis, University of Nebraska,
Master Beekeeper Program



The image features a dark blue background with several light blue diagonal lines crisscrossing across it. In the center, the word "Questions?" is written in a bold, yellow, sans-serif font.

Questions?