

100 to 1,000 Hives

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Caspian Apiaries

100 to 1,000 Hives

Introduction

This report describes a fast, simple and inexpensive methodology to make an increase. It is suitable for both small and large scale apiaries.

100 to 1,000 Hives

Materials

- 100 hives, 20 frames population
- 1,000 New Hive Boxes
- 9,000 Empty Frames with Comb (New or Used)
- Caspian Solution (a stimulative supplement containing royal jelly, pheromones and other natural ingredients)
- Pollen, sugar, honey, and water
- Feeding system [mixing tanks etc]

100 to 1,000 Hives

Methods

Two Methods

- One: Hives Raise Their Own Queens
- Two: Grafting System

100 to 1,000 Hives

Methods (continued)

Method One: Colonies Raise Their Own Queens

- Day One: from the original colonies create 100, 3 frame colonies and place the existing queens in these hives. These are the mother hives.
- Day Two: Feed 5 to 10 liters of Caspian Solution to the remaining hives [17 frames] and within 2 days the emerging bees will restore the 20 frames of population

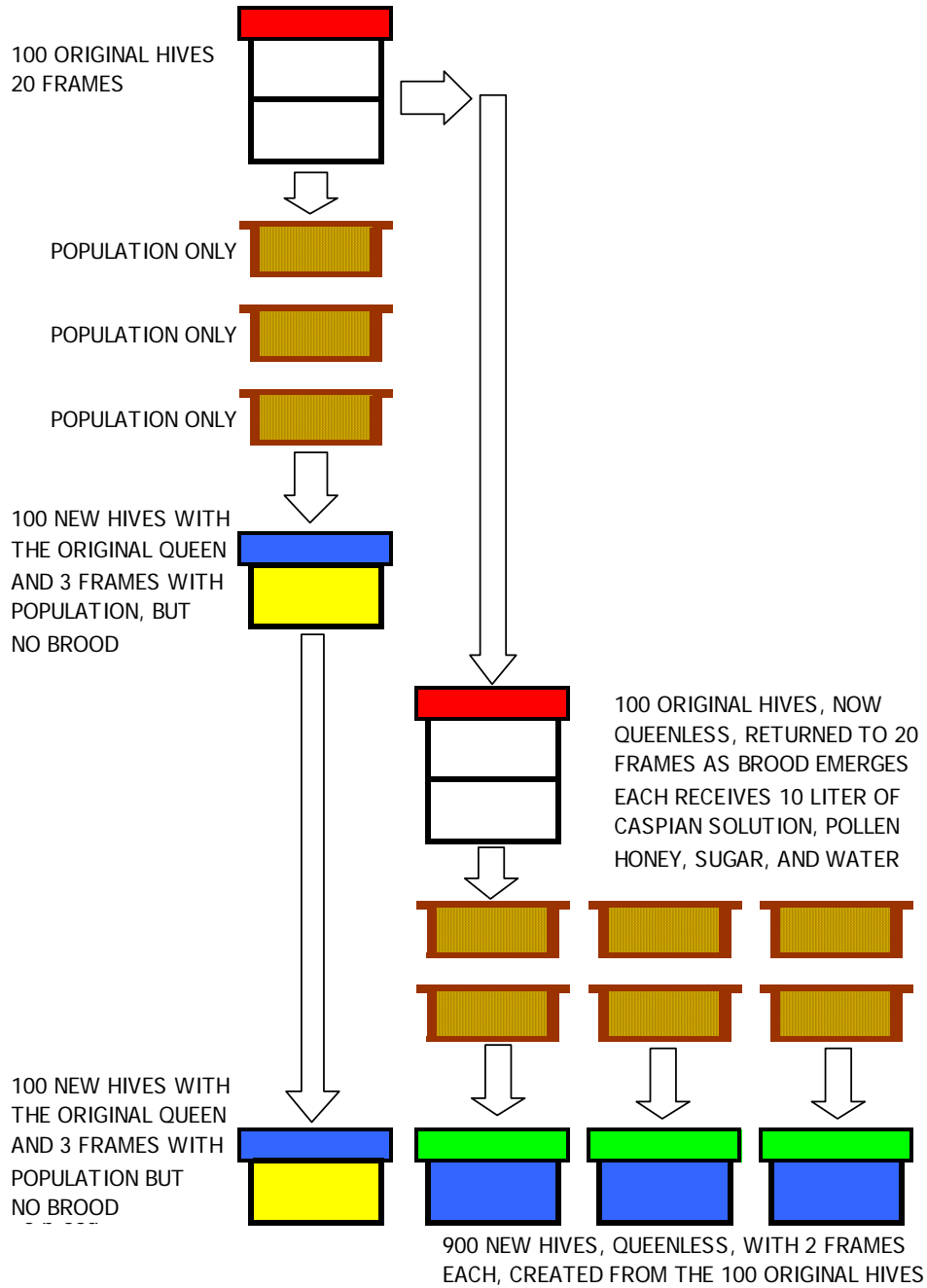
100 to 1,000 Hives

Methods (continued)

Method One: Colonies Raise Their Own Queens

- Day Four: Create 1,000 new colonies: Every new colony will receive two frames of population and most, but not all, of those frames will contain brood also

FIGURE ONE - THE HIVE INCREASE PROGRAM



100 to 1,000 Hives

Methods (continued)

Method One: Colonies Raise Their Own Queens (continued)

- Day Six: Feed one liter of Caspian Solution to each of the 1,000 new colonies
- Day Eight to Ten: 90% of the new queen cells are capped

Typical Queen Cells

from three frame population



100 to 1,000 Hives

Methods (continued)

Method One: Colonies Raise Their Own Queens (continued)

- Days 6 to 22: every three days take 2 frames of eggs from mother hives and place in the 900 new hives
- Days 12 to 15: 95% of the new queens have emerged

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Methods (continued)

Method One: Colonies Raise Their Own Queens (continued)

- Day 19 to 23: Will see the sign of the last mating



Sign of Last Mating



100 to 1,000 Hives

Methods (continued)

Method One: Colonies Raise Their Own Queens (continued)

- Day 22 to 26: > 95% of the new queens will begin to lay eggs



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Methods (continued)

Method One: Colonies Raise Their Own Queens (continued)

- When the queen starts to lay eggs there will be an average of 3 frames of capped brood and four frames of population in each colony.

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Typical Brood



100 to 1,000 Hives

Methods (continued)

Method Two: Grafting System

- Require 20 hives with strong population for cell building.
- These hives should be able to yield 1,200 larvae for grafting
- 1,200 grafted cells should yield 1,000 good queen cells

Method Two: Cassette System

Population Feeding and Building Cells



Method Two: Grafting System

Typical Queen Cell Sizes



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Methods (continued)

Method Two: Grafting System (continued)

- With the exception of the work required to deal with the grafting [cell holders, incubator hives etc] this apiary expansion is the same as the first method.

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Results

- Each of the 900 new colonies successfully created a strong queen.
- When the new queens began to lay eggs the colony contained 3 frames of brood and population. This is impossible with other increase methodologies.
- One month after each of the 900 new queens began to lay eggs each of the new colonies contained 10 frames of population. 7 of those frames were with brood.
- The balance of nurse and field bees was maintained throughout the expansion.

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Discussion

This method is successful because:

- The bees receive proper nutrition
- The original queens are established as egg-makers
- The new colonies simultaneously produce queens and nurture the brood.

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Discussion (continued)

This method is attractive because:

- An expansion can be done in a very systematic way
- Unlike other methods the hives remain productive and the nurse bee / field bee population remains balanced even while the new queens mature.

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Discussion (continued)

This method is attractive because:

- Beekeepers can feed their colonies honey and pollen without worrying about AFB or other diseases as the Caspian Solution allows the a beekeeper to treat AFB (this will be discussed in my final presentation).