

Value and Management of Artificial Insemination Why Use?

50% of a cross is all that's guaranteed if queens
mate naturally
Rapid results for specific trait selection

Prove Biology
Virgin/Queen
fast-insemination

Drones

32-36 days to mature
they are fragile
last only 30 minutes after feeding

Need to know where drones congregate
for collecting them

Collect flying/mature drones by putting queen
excluder excluder on outside of
hive entrance

Drones Don't tend to drift from one colony
to another

Can select drones based on morphology
or based on some other criteria

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Drone Biology

Virgin/Queen

Post-Insemination

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Virgin Queens

- Need to be older than 7 days
- Healthy - well cared for prior to insemination
- Queen

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- Sterile Work Environment

- Carbon dioxide treatment
- One to ~~mate~~ ~~in~~ ~~the~~ ~~position~~ } 24 hrs
- Apart

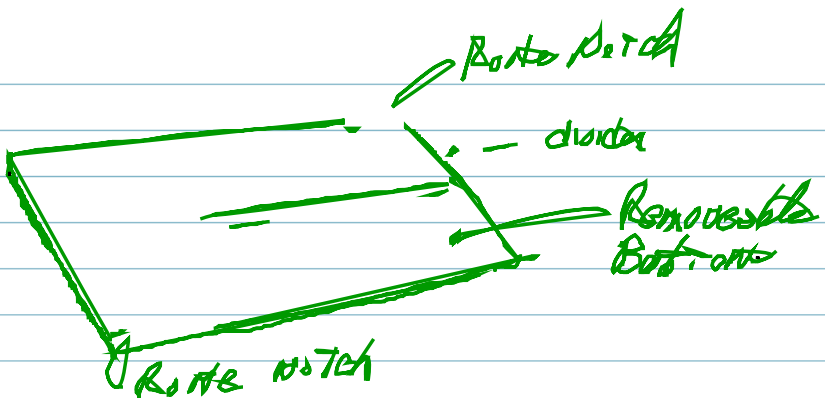
Variations

- One vs. two day insemination
- Different volumes of Sperm per insemination
4 - 13 microliters
- Different instrument/equipment

Post Insemination

- Introduction of Queen
 - Push in Cage
 - Small nuc with young / emerging bees
or environment of emerging bees

Hold with 4 baby nurse bees for 3 days



Bottom board used to modify hive body
to turn into mating Nuc box

Pointers

keep in Nuc in singles or double

2 deep mediums

Grating front breeders

Longevity of Breeders - 2 seasons

Problems and Remedies for breeder

A board of frames of brood helps to
As do start the process to laying

Italian types

One Carniolan types