

**FILE CODE** SB1M

**METHOD** ESTABLISHMENT OF TEST COLONY FROM ARTIFICIAL SWARM

**RECOMMENDED PERIODS**

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
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**CONDITIONS**

- Late spring and early summer when newly mated queens are available
- Presence of nectar and pollen flow

**REQUIRED MATERIALS & EQUIPMENT**

- ✓ Strong and healthy donor colonies
- ✓ Standard hive (single box) and frames with foundation
- ✓ Ventilated box with capacity to hold 1.2 to 2 kg of bees and funnel (Fig. 1)
- ✓ Balance with precision of 0.1 kg for weighing (Fig. 2)
- ✓ Mated queen from known origin
- ✓ Honey bee food supply (sugar solution)



Fig. 1



Fig. 2

**PROCEDURE**



**1.** Prepare the new hive with frames and foundation



**2.** Check the strength and health of the donor colony. Find and confine the queen. Select frames (preferably with open brood) covered with bees

## PROCEDURE



3. Place the ventilated box on the balance and shake or brush 1.2 to 2 kg of bees into it. Use same amount of bees for establishing all colonies. Keep the ventilated box with bees, food and caged queen in dark and cold place for 2-3 days



4. Insert the queen in cage closed with sugar fondant between the frames



5. Transfer the bees from the ventilated box into the hive containing the frames and queen



6. Supply the colony with ca. 5 kg sugar solution to enhance colony start up

## NOTES & SUGGESTIONS

- Set up all test colonies on the same day (preferably in the evening)
- Several donor colonies can be used for setting up the test colonies
- If possible set up the test colonies from an apiary distanced more than 3 km from the testing station. If this is not possible, use more bees (1.7 to 2.5 kg)
- Ensure the queen cage is appropriately positioned to enable the queen to be released by the bees
- Prevent colonies robbing each other by avoiding spillage of sugar solution and keeping flight entrances small

## ADDITIONAL INFORMATION



- Standard methods for rearing and selection of *Apis mellifera* queens (Buchler *et al.*, 2013)

- Standard methods for estimating strength parameters of *Apis mellifera* colonies (Delaplane *et al.*, 2013)



AGT Methodenhandbuch

([www.toleranzzucht.de/zuchtprogramm/methodenhandbuch/](http://www.toleranzzucht.de/zuchtprogramm/methodenhandbuch/))



Virtual apiary ([www.smartbees-fp7.eu/extension](http://www.smartbees-fp7.eu/extension))



Selektion der Honigbiene (IWF Wissen und Medien gGmbH, Nonnenstieg 72 D-37075 Göttingen) Video material