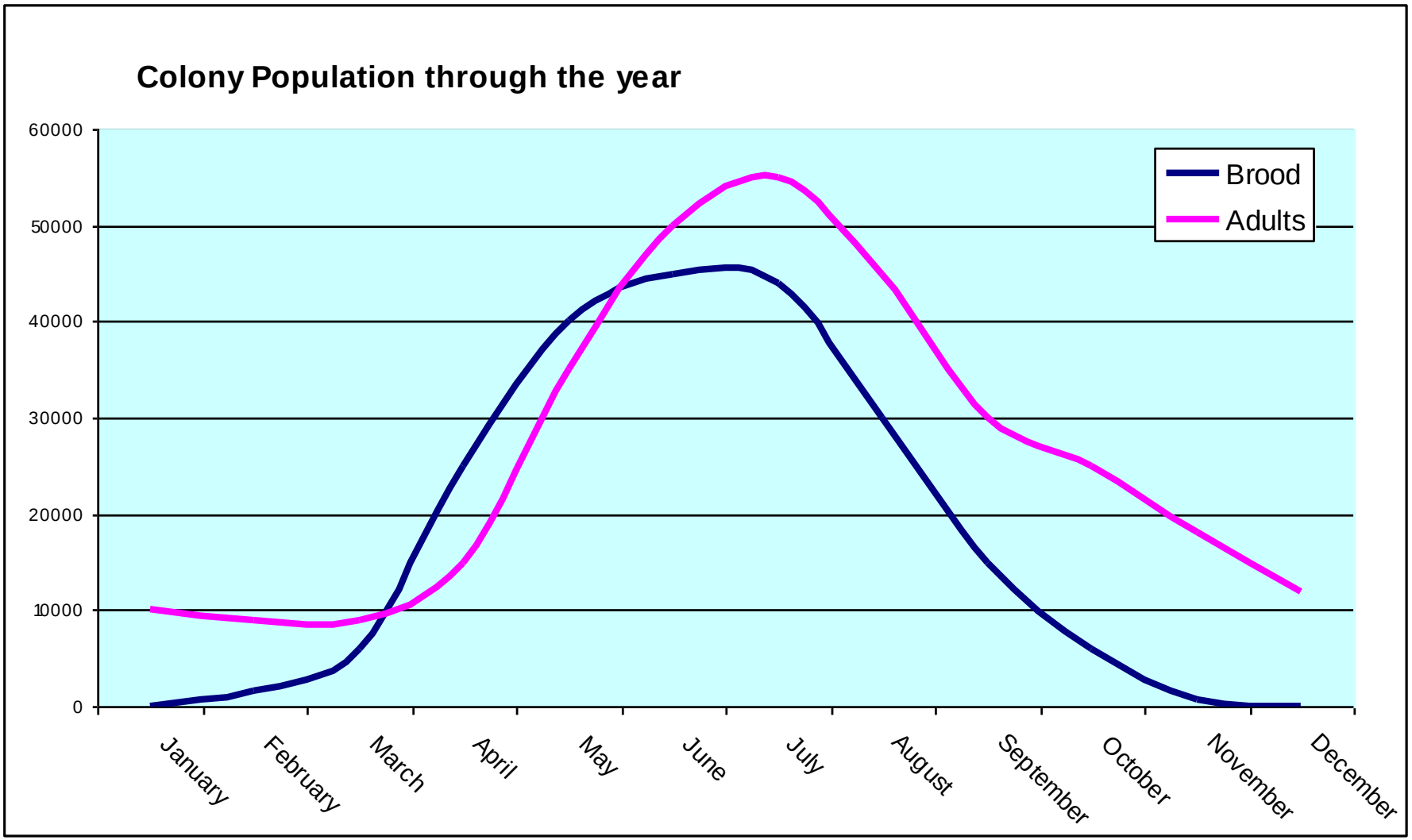
# MBKA Beekeeping Course
# Session 4

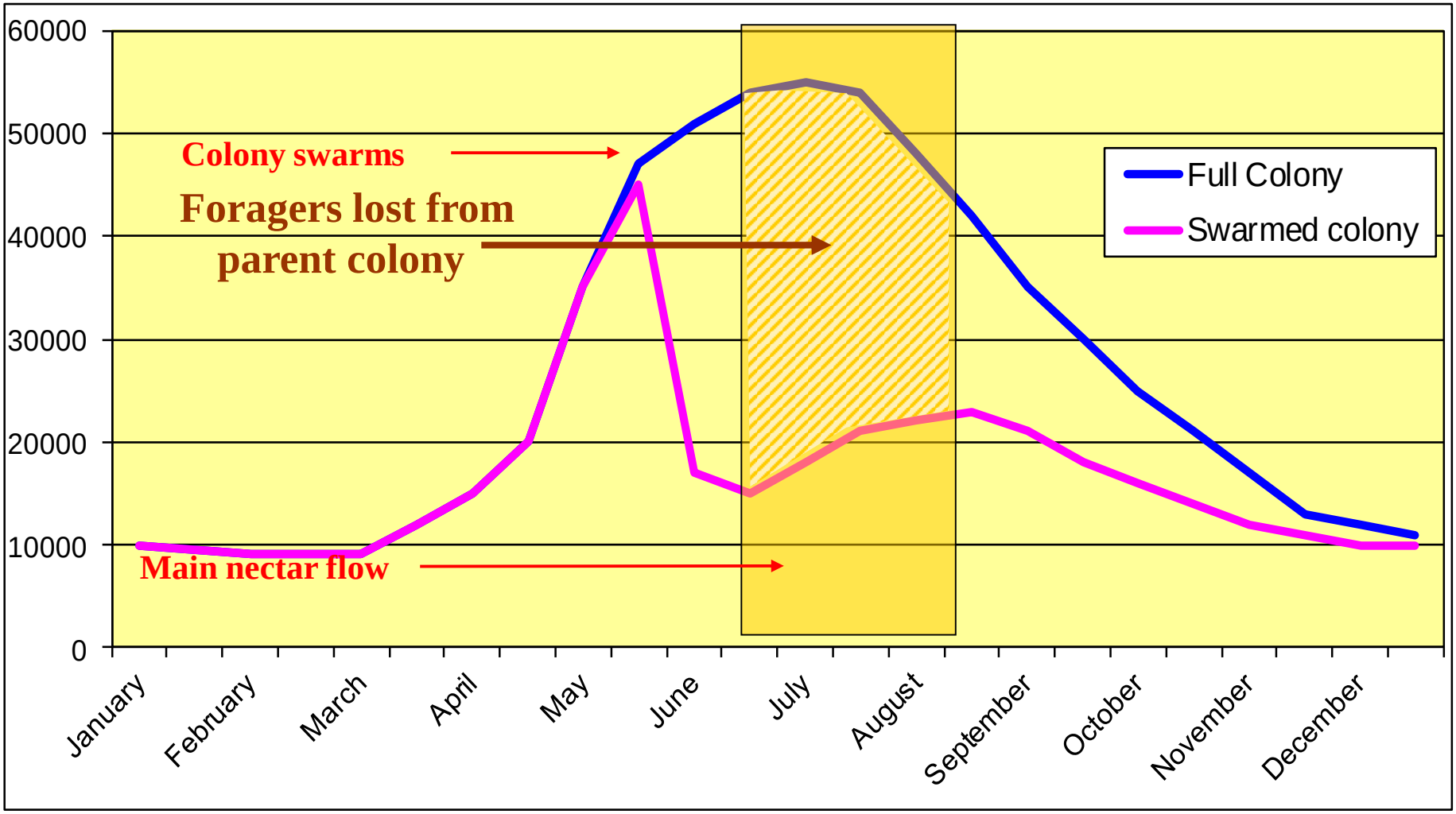
**Managing Swarming**
Effect on the colony
Swarm prevention
Swarm control principles and methods

**Manipulations**
Splitting colonies
Combining colonies
Establishing your first colony
Feeding

**Apiary session**
Lighting the smoker
Hooper's 5 questions
Queen marking


Colony Population through the year
60000
50000
40000
30000
20000
10000
0
Brood
Adults
January
February
March
April
May
June
July
August
September
October
November
December

# Impact of swarming



# Swarm Prevention

- **Young Queen  < 2 years old**
- **Room in brood space for Queen to lay**
- **Room in super space for nectar to be stored**
- **Regular Inspections – weekly**
- **Spare equipment ready**
- **Know what to do when Queen cells are seen with larvae**

# Principles to bear in mind when splitting a colony

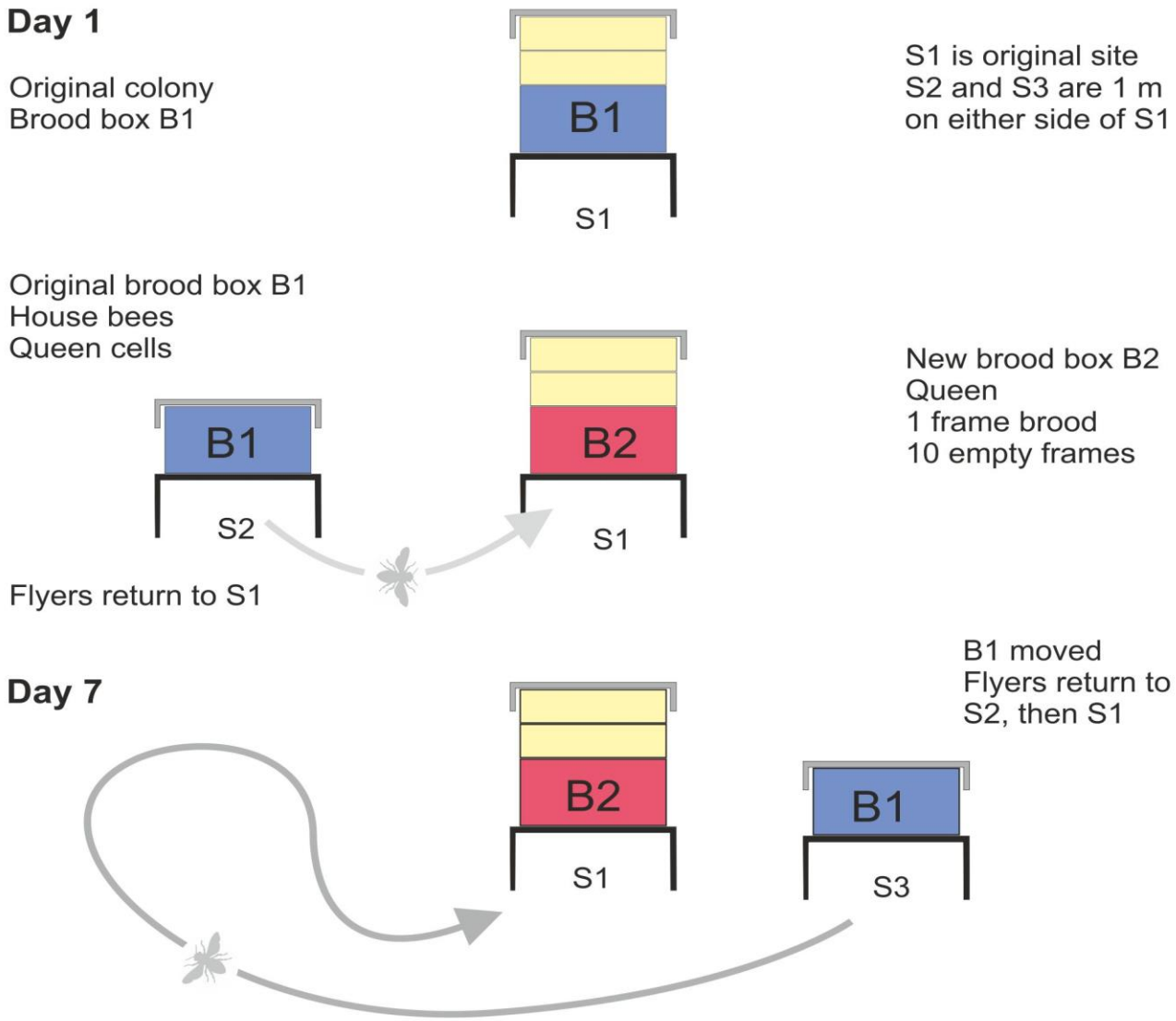
- Flying bees (foragers) will return to original hive location
- Only the older bees (foragers) collect the nectar
- An uncapped queen cell needs a strong colony to feed the larva lots of royal jelly
- A colony without a queen will make lots of queen cells using any eggs and young larvae available
- If a strong colony has several queen cells it is likely to send off casts
- the queen and flying bees might abscond if there is no brood at all
- Don’t shake a queen cell
- Queen development times:
  - egg: 3 days
  - larva: 5 days
  - pupa: 8 days
  - mating flights between 4 days and 3 weeks

# Swarm Control
# Basic Principles – (1)

- **Colony made up of 3 parts:**
  - **Queen**
  - **Brood and nurse bees**
  - **Flying bees (foragers)**

# Swarm Control
# Basic Principles – (2)

- **Swarm control involves separating one of the three parts from the other two:**
  - **Queen from Brood and Flying Bees**
  - **Flying Bees from Queen and Brood**
  - **Brood from Queen and Flying Bees**




*The artificial swarm method of swarm control*

# Other methods

- Wilson division – vertical split, maintaining foraging strength of colony and creating two nuclei
- Snellgrove Board – vertical split maintaining strength
- Shook Swarm – replaces old comb with fresh foundation

# Combining colonies

- Remove one queen (usually the oldest)
- Keep queenright colony in position
- Remove crownboard and cover with 2 sheets of newspaper on top of supers
- Queen excluder to hold it down
- Pierce a few small holes in paper with hive tool
- Place queenless brood box on top
- Any supers stay on top of their respective brood box
- Bees take a day or two to chew through paper
- Colony scents merge gradually
- Chewed up paper is deposited outside front of hive
- About a week later combine into a single brood box, selecting the best brood combs and keeping brood from both colonies together in centre

# Establishing your first colony

**A swarm**

- Ready to build wax so can cope with foundation
- May need feeding
- Q will be laying as soon as there is comb (1-2 days)
- Swarming and fresh comb invigorate the colony
- build up quickly
- might get a honey crop
- unlikely (but not impossible) to swarm again that year

# Establishing your first colony

**A nucleus**

- 5 drawn combs of bees
  with 2-3 fr brood at all stages,
  2 fr stores and this year's queen (?)
- Put nuc. box in position then hive after 24-48 hr
- May need feeding to draw out more foundation
- Should build up gradually
- Wait until at least 9 fr drawn before adding super
- Unlikely to get a honey crop
- Very unlucky if they swarm this year

# Feeding

| What | How | When | Why |
|---|---|---|---|
| Thin syrup | Approx. 1kg white sugar in 1.25 l water (1lb/1pt) | Spring or Summer | To simulate a nectar flow and increase egg laying rate |
| Thick syrup | Approx. 1kg white sugar in 625ml water (2lb/1pt) | Autumn | To supplement honey stores for winter |
| Candy or fondant | 2.4kg white sugar boiled in 0.5 litres water (6lbs/1pt) | Winter or early Spring | If colony is running short of stored honey |
| Pollen patties | ? | Spring | If there's insufficient pollen forage available |

1/3 of the World's food supply is dependent on insect pollination, primarily by bees.