

# Fall/Winter Hive Management in Southern AZ

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# The importance of Fall/Winter hive Management

- Bee colonies are most likely to die during the winter than any other season
- While Tucson winters are mild, winters are still the most challenging time for bee colonies in our area

# The importance of Fall/Winter hive Management

- How well your hive overwinters plays a huge roll in the trajectory of your beekeeping year
  - A hive that comes through the winter very strong can be split into two hives and both can make a honey crop in the spring
  - A hive that comes through the winter very weak will likely need feed and other help to survive the spring and may not recover and get big enough to produce a honey crop

# The importance of Fall/Winter hive Management

- **The Honey Crop you make (or don't make) next May/June has A LOT to do with what you do with your hives in August –October of THIS year.**

# The importance of Fall/Winter hive Management

- August is the end/beginning of my conceptual Beekeeping year
  - All bee management done from August onward will reap rewards (profit) during the next Spring/Summer therefore the year begins in August with fall preparations and concludes the next summer with honey harvest.

# The importance of Fall/Winter hive Management

- Winter in Tucson as far as bees are concerned lasts from Nov-Jan
  - Early November is when hives slow brood rearing and usually by around Thanksgiving they will be rearing no or minimal brood
  - In February strong hives will start growing in population and may start making swarms if not properly managed
- Due to our mild winter weather, it is possible to push bees to grow through the winter with a warm location and continuous feeding

# What do bee colonies need to survive the Winter?

- Adequate stores of food to survive 2-3 months without forage
- A large population of worker bees to form an efficient cluster
- Workers that are healthy, well nourished, and stress free
- A hive that is secure, protected from the weather and appropriately sized for the population of the colony

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- Adequate stores of food to survive 2-3 months without forage
  - A Hive should have at least 20lbs of honey (ideally more) stored in their hive for winter survival in the mild lower elevations of S. AZ
  - Picking a hive up from one side while doing an inspection can give you an idea of how heavy a hive is with resources
  - In our climate feed can be given to hives all winter long if necessary



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- A large population of worker bees to form an efficient cluster
  - SA:V and Thermal efficiency
  - Ideally your colony will have enough population to fill at least a 10 frame deep completely with bees heading into the winter (8-14 frames of bees is an ideal strength to begin winter)
  - 5 or fewer frames of bees heading into winter is a perilous place to be as your bees will not be able to form an efficient cluster on cold nights

# What do bee colonies need to survive the Winter?

- Workers that are healthy, well nourished, and stress free
  - Winter vs Summer Bees
  - You want that generation of long lived winter bees to be raised with great nutrition and minimal stress (ie mite treatments, robbing)
  - Colonies that raise winter bees heavily infested with mites (or nutritional stress) will most likely die over the winter because the stressed and sick winter bees will live shortened lives

# What do bee colonies need to survive the Winter?

- A hive that is secure, protected from the weather and appropriately sized for the population of the colony
  - Set up hives in a sunny spot protected from the wind and rain
  - Make sure that gaps and entrances on hives are minimized to avoid robbing
  - Make hives secure from ants, skunks, bears and javalina
  - Reduce the number of boxes on your hive down to one or two deeps depending on the cluster size (2-8 frames of bees one deep, 9-20 frames of bees two deeps)

# What Should you be doing with your hives to get ready for winter?

- TREAT FOR MITES ASAP if you have not already
- Pull off supers and reduce entrances (robbing screens)
- Determine the population size of your colonies now - if your colony is less than 10 frames of bees you should consider feeding protein and sugar water to encourage brood rearing to get your population up to 10-12 frames of bees before the end of October
- Determine the weight of your hives and start feeding if they are light even if their population is 10+ frames of bees
- Keep an eye out for ants and signs of other animals messing with your hives

Questions?