

Online Material

Information S1**Honey Bee Loses Investigation Survey, 2007**

Your answers will only be used for analyses, personal information will not be shared.

1. Your apiary location

- a. Province _____ Town _____
 b. If you practice migratory beekeeping, regions stationed in 2006:
 Winter _____ First region _____ Second region _____ Third region _____

2. Beekeeper info

- a. How many years have you been keeping bees?
 b. Beekeeping sector: _____ Queen producer _____ Honey producer
 c. Any other occupation:
 d. Education Primary school, Middle School, High School, College, Undergraduate, Masters, Doctorate

3. 2006 honey production and colony condition

- a. Compare your honey production in 2006 to previous years
 Less _____ Same _____ More _____
 b. Did colonies produce brood in the fall ? _____ Yes _____ No

4. Your colony losses

- a. Colony losses in previous years 2005 % _____ 2004 % _____ 2003 % _____
 b. 2006 fall colony count _____ 2007 spring colony count _____ Loss % _____
 c. Were dying colonies sampled for diagnosis? _____ No _____ Yes Diagnosis: _____

5. Queen use

- a. Did you replace queens? _____ Yes _____ Some _____ No
 b. How often do you replace queens? _____ 1 year _____ 2 years _____ 3 years
 c. Source of the queens? _____ Self production _____ Commercially _____ Ministry
 d. If you obtained queens from outside did you experience increased production?
 _____ Yes _____ No _____ Decrease

6. Feeding

- a. What feed did you administer to bees? _____ None _____ Natural _____ Syrup _____ Bee bread
 b. Bee bread: _____ Prepared by me _____ Purchased

7. Bee health

- a. Diseases encountered in your bees: Varroa _____ Foul brood _____ Nosema _____
 b. Do you use alternate control methods against Varroa ?
 _____ No _____ Yes What method:
 c. All chemical treatments used and length of time used in your practice.

8. Bee, environment, and other factors

- a. Which bee races and for how long have you been using?
 b. From which companies do you obtain the wax foundation:?
 1. _____ 2. _____ 3. _____
 c. Environmental conditions
 In the neighborhood of bees are there factories _____ agricultural pesticide applications _____ urban dwelling _____
 d. Winter and weather conditions: 2006-2007 winter:
 _____ Same as other. _____ Warmer _____ Colder. _____ Drier _____ Wetter

9. Questions related to colony collapse disorder

- a. Did apparently strong, healthy colonies decline, die rapidly (1 week)? _____ Yes _____ No
 b. In dying colonies were there wax moths on combs without bees? _____ Yes _____ No
 c. In dying colonies were there combs with pollen and honey? _____ Yes _____ No
 d. Was there first only a few workers and the queen left (in dying colonies)? _____ Yes _____ No

Please, after filling the form send to editoruad@gmail.com address.

THANKS

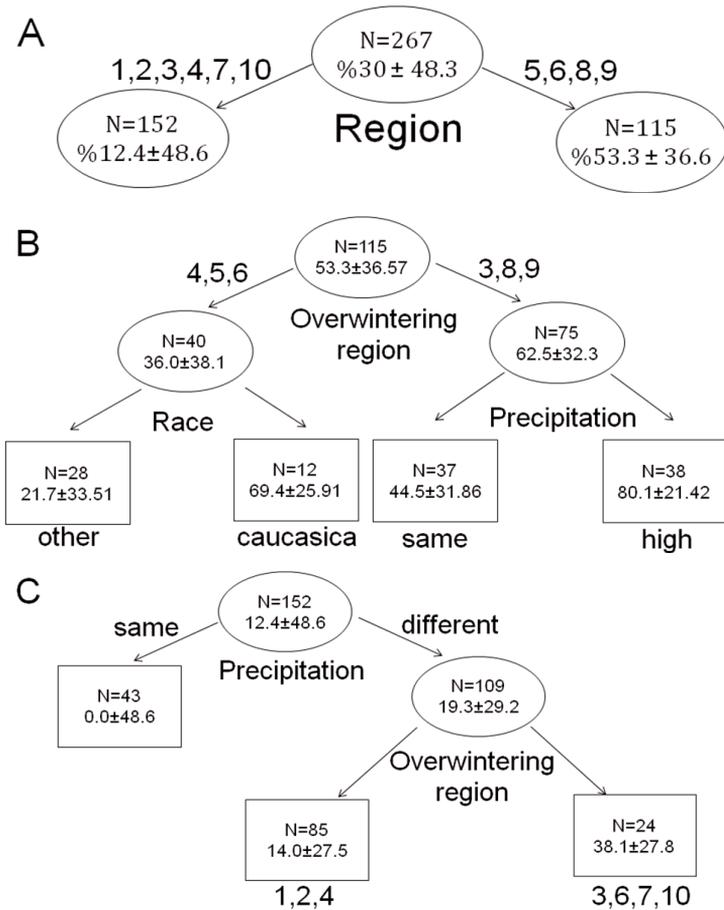


Figure S2. Recursive partitioning analysis of colony losses. A. The first node divides high and typical losses by region (1-10) where bees were kept. B. The high loss regions are split into very high and high loss groups based on overwintering area. The high loss group could further be divided based on bee race reported to be used by beekeepers. The very high loss group is further divided in two, and the highest losses occurred in areas with winter precipitation different than usual. C. The colonies at low loss regions also were affected by change in precipitation and overwintering region. The ovals indicate groups that could be further divided. Boxes indicate end of node. Analysis was stopped after 3 layers of partitioning or when one group would have included ≤ 5 records (see Segal, 1995). The first line is the number of records, the second line is average percent loss \pm SD. The total records included in this analysis is lower than 288 because of missing items on 21 questionnaires.

REFERENCES

Segal M.R. (1995) Extending the elements of tree-structured regression, *Stat. Methods Med. Res.* 4, 219–236.