

Beekeeping

Department of Entomology Insect Note

Note 3.05
(Previously Note # 16)

JUDGING LIQUID (EXTRACTED) HONEY

One of the primary products of beekeeping is liquid or extracted honey. Every beekeeper knows that he/she produces high quality honey, but how can you be sure? One of the best methods is to enter your honey in a honey judging contest at a state or local fair or bee meeting.

Winning a ribbon in a honey judging contest definitely gives the beekeeper bragging rights. To win those bragging rights, the beekeeper should definitely understand the judging process and what characteristics the judges consider. From a practical standpoint the judges really represent very conscientious honey consumers, but they may be emphasizing several factors that may seem unimportant to the beekeeper. The remainder of this Beekeeping Note explains the factors that the judges use in evaluating honey and why they are important, using Figure 1 as an example of a typical judging score card.

JUDGE=S SCORE CARD N.C. STATE FAIR		
Event: EXTRACTED HONEY Class: _____ Entry No. _____		
Point Scoring		Item
10		Density (Moisture content over 18.6% - DISQUALIFIED)
10		Absence of granulation or crystallization
30		Cleanliness: absence of lint, dirt, wax and foam
15		Flavor: absence of overheating and fermentation
15		Color and brightness
15		Container appearance: cleanliness and uniformity
5		Uniformity of entries in class
		Remarks:

Fig. 1 - Judging criteria for liquid (extracted) honey

1. Density or Moisture Content: All honey contains moisture or water; honey is really a variety of sugars dissolved in water. Excess moisture increases the growth of yeast cells that naturally occur in honey and can result in fermentation which will spoil the honey and make it unfit for human consumption. Judges often use a cut-off point of 18.6% and disqualify entries with additional moisture. This level (18.6%) is based on considerable research and honeys with moisture levels over that amount are much more likely to ferment than honeys with lower water levels. Some judges will also assign more points to honey of very low moisture contents but that practice varies considerably.

Containers of honey with moisture levels over 18.6% do appear very watery (fluid) to the naked eye and the beekeeper can have the honey tested with a refractometer in most states at the land-grant or state university and the state Department of Agriculture.

2. Absence of Granulation or Crystallization: All honey will eventually solidify (granulate or crystallize) even though the process may take from several months to many, many years. Crystallization is the term usually used to describe liquid honey which has been solidified under controlled conditions, and granulation describes liquid honey that has solidified under natural or uncontrolled conditions. Neither crystallization nor granulation are good attributes for liquid honey prepared for judging or for sale. The presence of crystals or granules can usually be detected in the honey if they occur in more than a very small amount, and they give an uneven or gritty appearance to the honey. This can result in two problems. The first is a minor cosmetic problem and many consumers assume that crystallized or granulated honey is spoiled and they will either not purchase it or discard it if the granulation process becomes apparent after the honey is placed in the home. A more serious problem is that the formation of granules/crystals in liquid honey will increase the moisture content of the remaining liquid portion of the product which can lead to fermentation. Judges will subtract points for honey that is granulated or crystallized.
3. Cleanliness: A look at Figure 1 shows that this category accounts for 30% of the total points assigned by the judges for liquid honey. Cleanliness including lint, dirt, wax, and foam are among the most easily controlled factors by the beekeeper and carry a high penalty if a dirty honey is entered into competition. The terms are self-explanatory with the possible exception of foam, which refers to air bubbles trapped in the honey. There really is no excuse for dirty honey.
4. Flavor: Flavor is a very subjective characteristic and the use of flavor as a factor in judging honey is usually limited to checking for fermentation and overheating. Fermentation will give a sour taste to the honey and overheating will give the honey a caramelized (burnt sugar) taste. The flavors associated with different honey sources should not be a factor in honey judging, unless the floral source produces a honey with a very disagreeable flavor.
5. Color and Brightness: Most consumers prefer honey with a clear color and some brightness. The judges will consider these characteristics but it should be noted that color does not mean that a light color honey will receive more points than a dark color honey. Liquid honey is usually grouped into color categories by the superintendents or the judges of the honey show prior to judging. The factors of clear color and brightness in honey are partially a result of cleaning or filtering the honey and slightly heating it prior to competition. The process may consist of pouring the heated honey (never heat honey over 140°F for any period of time) through a filter of some sort to remove impurities. This process not only improves the cosmetic appearance of the honey but it also decreases the possibility that granulation and fermentation will occur.
6. Container Appearance: The actual requirements for container type should be specified in the entry requirements for the honey judging. Be sure to comply with those rules and don't enter the wrong size container or a container made of an unacceptable material. The judges will pay special attention to the cleanliness and lack of wear to the container and its lid. This attention to container and lid cleanliness includes the inside of the lid.
7. Uniformity of Entries in Class: Most judging contests will require that multiple numbers of honey containers be entered for a category (usually three jars of extracted honey). This requirement helps to ensure that the entrant really produced the honey and did not just buy a jar, and it also demonstrates that the entrant can package more than just one jar of high quality honey.

Entering honey into judging competitions can be an educational and valuable experience for the beekeeper. Good judging based on an objective criteria can be used to evaluate packaged liquid honey and also suggest areas for improvement. Always ask for completed evaluation forms from the judges for your entries and consider their comments. Honey judging can help the beekeeper improve his/her product, improve the honey's future marketability, and even give some bragging rights if a ribbon and/or a cash premium is won.

NOTE: Each year the N.C. State Fair awards \$2,881.00 in premium (cash) awards for the Bee and Honey Competition. Have you tried to win your share?

Prepared by: J.T. Ambrose, Extension Apiculturist - September 1997
See also Beekeeping Note #16a *Preparing Liquid Honey for Competition & Sale*