

## **2021 National 4-H Beekeeping Essay Competition: Call for Entries**

**Submission Deadline March 15, 2021**

First Prize: \$750, Second Prize: \$500, Third Prize: \$250

### **2021 Essay Topic: Immunity: Threats to Bee Colonies and Methods to Defend Against the Threats**

Honey bee colonies have developed many ways to stay healthy. Their immune responses range from behaviors such as grooming to using materials such as propolis, a plant-derived substance bees coat on the interior of a hive for antimicrobial purposes. Even the gut of the honey bee contains beneficial bacteria to help the bee



stay healthy! In your essay, name at least two threats (e.g., a parasite such as Varroa, a pathogen such as a virus, a predator such as a bear, etc.) to honey bee colonies and then discuss the methods colonies use to defend against those threats. If possible, include at least one picture you have taken from February 2020 - February 2021 that illustrates how colonies manage to stay healthy against a variety of threats.

#### **Essay requirements for national judging:**

- o Essay must be typewritten or computer-generated on single-sided pages and formatted following standard manuscript format, using double-spaced type and 12-point font in legible font face.
- o Essay must encompass the designated topic in 750 to 1,000 words. Word count does not include sources, works cited or the writer's biographical statement.
- o All factual statements and interview references must be cited in a "sources" or "bibliography" list.
- o Essays will be judged on (a) scope of research, 40%; (b) accuracy, 30%; (c) creativity, 10%; (d) conciseness, 10%; and (e) logical development of the topic, 10%.
- o On a separate page, please include a brief biographical statement about the 4-H Member and include mailing address, email address and phone number.

Questions or submissions: [afd7@cornell.edu](mailto:afd7@cornell.edu)