

42

How do the words “can,” “may,” and “could” in the third paragraph (lines 19-41) help establish the tone of the paragraph?

- A) They create an optimistic tone that makes clear the authors are hopeful about the effects of their research on colony collapse disorder.
- B) They create a dubious tone that makes clear the authors do not have confidence in the usefulness of the research described.
- C) They create a tentative tone that makes clear the authors suspect but do not know that their hypothesis is correct.
- D) They create a critical tone that makes clear the authors are skeptical of claims that pyrethrums are inherent in mono-crops.

43

In line 42, the authors state that a certain hypothesis “can best be tested by a trial.” Based on the passage, which of the following is a hypothesis the authors suggest be tested in a trial?

- A) Honeybees that are exposed to both pyrethrums and mites are likely to develop a secondary infection by a virus, a bacterium, or a fungus.
- B) Beekeepers who feed their honeybee colonies a diet of a single crop need to increase the use of insecticides to prevent mite infestations.
- C) A honeybee diet that includes pyrethrums results in honeybee colonies that are more resistant to mite infestations.
- D) Humans are more susceptible to varroa mites as a result of consuming nutritionally deficient food crops.

44

Which choice provides the best evidence for the answer to the previous question?

- A) Lines 3-5 (“These mites . . . viruses”)
- B) Lines 16-18 (“In fact . . . cream”)
- C) Lines 19-21 (“We suspect . . . deficient”)
- D) Lines 24-28 (“Without . . . bees”)

45

The passage most strongly suggests that beekeepers’ attempts to fight mite infestations with commercially produced insecticides have what unintentional effect?

- A) They increase certain mite populations.
- B) They kill some beneficial forms of bacteria.
- C) They destroy bees’ primary food source.
- D) They further harm the health of some bees.

46

Which choice provides the best evidence for the answer to the previous question?

- A) Lines 1-2 (“Honey bees . . . mites”)
- B) Lines 6-7 (“Little . . . control”)
- C) Lines 31-35 (“In addition . . . infestation”)
- D) Lines 47-50 (“Mites . . . control colonies”)

47

As used in line 35, “postulate” most nearly means to

- A) make an unfounded assumption.
- B) put forth an idea or claim.
- C) question a belief or theory.
- D) conclude based on firm evidence.

48

The main purpose of the fourth paragraph (lines 42-50) is to

- A) summarize the results of an experiment that confirmed the authors’ hypothesis about the role of clover in the diets of wild-type honeybees.
- B) propose an experiment to investigate how different diets affect commercial honeybee colonies’ susceptibility to mite infestations.
- C) provide a comparative nutritional analysis of the honey produced by the experimental colonies and by the control colonies.
- D) predict the most likely outcome of an unfinished experiment summarized in the third paragraph (lines 19-41).

49

An unstated assumption made by the authors about clover is that the plants

- A) do not produce pyrethrums.
- B) are members of the *Chrysanthemum* genus.
- C) are usually located near wild-type honeybee colonies.
- D) will not be a good food source for honeybees in the control colonies.

50

Based on data in the table, in what percent of colonies with colony collapse disorder were the honeybees infected by all four pathogens?

- A) 0 percent
- B) 77 percent
- C) 83 percent
- D) 100 percent

51

Based on data in the table, which of the four pathogens infected the highest percentage of honeybee colonies without colony collapse disorder?

- A) IAPV
- B) KBV
- C) *Nosema apis*
- D) *Nosema ceranae*

52

Do the data in the table provide support for the authors' claim that infection with varroa mites increases a honeybee's susceptibility to secondary infections?

- A) Yes, because the data provide evidence that infection with a pathogen caused the colonies to undergo colony collapse disorder.
- B) Yes, because for each pathogen, the percent of colonies infected is greater for colonies with colony collapse disorder than for colonies without colony collapse disorder.
- C) No, because the data do not provide evidence about bacteria as a cause of colony collapse disorder.
- D) No, because the data do not indicate whether the honeybees had been infected with mites.

STOP

**If you finish before time is called, you may check your work on this section only.
Do not turn to any other section.**