



WASHINGTON MASTER BEEKEEPERS

NAME _____

APPRENTICE TEST 1 CHAPTER 1

- _____ 1) Three castes of honey bees live in a colony – a queen, workers, and drones.
- _____ 2) *Apis mellifera* communicate through pheromones, dances, and head butts.
- _____ 3) Workers in the hive are assigned work roles, e.g. mortuary bee, nurse bee, guard bee based on their size.
- _____ 4) A Drones only job is to mate with the queen. They must beg for food from the workers and are ousted from the hive in the fall.
- _____ 5) Forgers gather pollen, nectar, and wax from flowers.
- _____ 6) Bee space is 3/8 inches which allows bees to move about the hive.
- _____ 7) *Apis mellifera* is not native to North America.
- _____ 8) The seasons and the weather dictate the honey bee's life.
- _____ 9) *Apis mellifera* are critical pollinators for our economy.
- _____ 10) The workers are the true decision makers in the colony.



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APPRENTICE TEST 2 CHAPTER 2

- _____ 1) The most popular beekeeping sub-species is *Apis mellifera ligustica*, the Italian.
- _____ 2) VSH is a honeybee behavioral trait.
- _____ 3) Each subspecies exhibits the personality quirks or behaviors of their subspecies. Not all bees embody the same behavior to the same degree, however. These behavior traits are more like tendencies, or guidelines, not hard and fast rules.
- _____ 4) *Apis mellifera carnica* are exceptionally light in color.
- _____ 5) Your bee selection consideration should include honey production, overwintering, and spring buildup to name a few.

APPRENTICE TEST 3 CHAPTER 3

- _____ 1) The Langstroth movable frame hive is used by most beekeepers.
- _____ 2) Screened bottom boards are often used in an Integrated Pest Management (IPM) program.
- _____ 3) Queen excluders should be kept on the hive year around.
- _____ 4) When opening a hive, use lots of hot smoke to calm the bees.
- _____ 5) Most city ordinances covering beekeeping require that beekeepers wear gloves.



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APPRENTICE TEST 4 CHAPTER 4

- ____ 1) Beekeepers are responsible for knowing the beekeeping ordinances for their area.
- ____ 2) Damp and humidity are dangerous bee-killers.
- ____ 3) If you move your hives at night, you may move them as far as you like.
- ____ 4) *Apis mellifera* prefers water that has minerals and that may appear “dirty” to us.
- ____ 5) Langstroth hives should be placed close together to facilitate beekeeping activities.
- ____ 5) In order to avoid potential problems, beekeepers should take time to introduce their neighbors to their beekeeping activities.
- ____ 6) If your apiary is fenced, make sure your fence has slat opening to help avoid cold-air sinks.
- ____ 7) A smoker is a tool, not a weapon.
- ____ 8) Depending where you live, exposure to the sun and shade are important components to successful beekeeping.
- ____ 9) When painting your hives make all the hives the same color without any markings. This will prevent confusing the bees.
- ____ 10) Many city ordinances require the use of a fence to redirect bees flight path over pedestrians.



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APPRENTICE TEST 5 CHAPTER 5

- ____ 1) Struggling and dying brood may be the strongest indicator of overall colony health.
- ____ 2) Sending a bee specimen to a Bee Lab is the most reliable method of diagnosing a bee disease.
- ____ 3) American Foulbrood (AFB) is the most devastating bee disease, causing a beekeeper to burn their infected equipment.
- ____ 4) Sacbrood is a disease of adult bees.
- ____ 5) There are no cures for honeybee viruses like Deformed Wing Virus (DFV) and Israeli Paralytic Virus (IPV).
- ____ 6) American Foulbrood (AFB) produces a long, stretchy string when a toothpick is put into an infected cell and pulled out.
- ____ 7) The Holst Milk test quickly identifies the presences of Nosema.
- ____ 8) In managing honeybee colonies, an ounce of disease prevention is worth a pound of cure.
- ____ 9) There are two microsporidia that cause Nosema, Nosema Ceranae and Nosema Apis.
- ____ 10) If you choose not to treat (chemical or chemical free), you put all hives within a 1 to 3 mile radius at risk.



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APPRENTICE TEST 6 CHAPTER 6

- _____ 1) Humans may be the most obnoxious pest to *Apis mellifera*.
- _____ 2) You may be able to train skunks to stay away from hives by placing a scarecrow in the apiary.
- _____ 3) Place a mouse guard on the hive entrance to keep mice out during winter.
- _____ 4) Sprinkling cinnamon around the hive will keep hornets and wasps away.
- _____ 5) Varroa mites act as a vector for transmitting viral disease to honeybees.
- _____ 6) Testing for Varroa mites is critical to understanding the overall health of your hive.
- _____ 7) Varroa mites are found on adult bees and in brood cells feeding on the larvae.
- _____ 8) Varroa mite treatments should be rotated to keep the mites from becoming resistant to any one medication as has happened in the past.
- _____ 9) Tracheal mites are an external pest and can be seen without the use of a microscope.
- _____ 10) A few hobby beekeepers use essential oils to treat their hives for specific diseases.



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APPRENTICE TEST 7 CHAPTER 7

- _____ 1) The last eggs laid by the queen in the fall become the bees that attend the queen all winter.
- _____ 2) Feed the bees a 2:1 sugar to water syrup in the spring to get them off to a good start.
- _____ 3) When combining a weak and strong colony the strong colony is always on the bottom.
- _____ 4) Splits are made in the spring by 'splitting' your frames in half.
- _____ 5) In the spring, provide more room for the queen to lay by adding 3 to 4 deeps.
- _____ 6) Never open your hives in the spring, wait until summer.
- _____ 7) When manipulating frames always leave the brood next to their food sources.
- _____ 8) Provide more space for worker bees to cluster in the hive by adding slatted racks or a 'rec room'.
- _____ 9) When combining a weak and strong colony the strong colony is always on the top.
- _____ 10) Just like bears, *Apis mellifera* hibernates in the winter.



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APPRENTICE TEST 8 CHAPTER 8

- _____ 1) IPM stands for Internal Pest Magnet.
- _____ 2) IPM includes physical, biological and genetic controls.
- _____ 3) Workers are the decision-makers in the hive.
- _____ 4) Feed the bees 1:1 sugar syrup all summer.
- _____ 5) Swarming is a natural behavior for *Apis mellifera*.
- _____ 6) Supersedure occurs when a laying worker takes over for the failing queen.
- _____ 7) Tangential extractors require turning the frames during honey processing.
- _____ 8) Washington State includes precise instructions regarding labeling honey containers in their laws (Revised Code of Washington).
- _____ 9) Feed your bees during a dearth if honey stores are light.
- _____ 10) Using a bee escape is one method of getting the bees out of the honey supers before you begin to harvest the honey.



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APPRENTICE TEST 9 CHAPTER 9

- _____ 1) Weak hives may be over-wintered successfully.
- _____ 2) State and county fair honey show guidelines/rules were developed for farmers to learn to market their honey to the public.
- _____ 3) Fall feeding requires a 2:1 sugar syrup.
- _____ 4) Unless medication directions say you can, never medicate while honey supers are on.
- _____ 5) Varroa populations reach their peak in January.
- _____ 6) You may want to replace old queens with new during the fall, ensuring a vigorous queen for the spring.
- _____ 7) Remove summer mouse guards for Fall/Winter.
- _____ 8) If you have weak colonies in the fall feed them protein patties to help them through the winter.
- _____ 9) Always treat the hives with the same varroa mite medication you used in the spring.
- _____ 10) An oxalic acid treatment is more effective when there is no brood.



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APPRENTICE TEST 10 CHAPTER 10

- _____ 1) Bees can digest fondant even if it's lower than 55°.
- _____ 2) Bees cannot take liquid feed when the temperatures are lower than 55°.
- _____ 3) When the weather is cold you can check on your bees by knocking on the side of the hive and listening.
- _____ 4) Bees fail to live through winter if they enter the season weak or too small to make an adequate cluster.
- _____ 5) Too much moisture in the hive in winter promotes disease.
- _____ 6) If it snows, do not worry about cleaning the snow from the hive's entrance, the bees will do it.
- _____ 7) Clusters move upward in the hive throughout winter.
- _____ 8) The temperature in the middle of the cluster averages 45°.
- _____ 9) The warmer it is outside, the more tightly bees cluster together.
- _____ 10) Excessive moisture in winter is a major killer of colonies.



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APPRENTICE TEST 11 CHAPTER 11

- _____ 1) Washington State University (WSU) is responsible for County Extension in Washington.
- _____ 2) Beekeeping Clubs can assist with the education of the public about Honey Bees.
- _____ 3) Local clubs can act as Honey Bee inspectors.
- _____ 4) Washington State University (WSU) runs a major Honey Bee research program.
- _____ 5) American Beekeeping Federation (ABF) represents beekeepers in Congress.

APPRENTICE TEST 12 CHAPTER 12

- _____ 1) Planting four foot clusters of flowering plants are attractive to honey bees.
- _____ 2) Only plant spring blooming flowers as the honey bees need them the most.
- _____ 3) Goldenrod is a great fall flower to plant.
- _____ 4) Crocus is one of the early spring flowers for honey bees.
- _____ 5) Planting Lavender will give your bees a great honey and pollen source for the summer to fall months.