

Answer the following statements True (T) or False (F) in the space provided.

### LESSON/TEST #1 - HONEYBEE BASICS

 1.	The genus and order of the honeybee is Apis mellifera.
 2.	Beeswax is secreted from 6 glands on the underside of the abdomen of DRONE bees.
 3.	Propolis may be gathered from tree buds or pitch from trees.
 4.	Subspecies of honeybees include: ligitstica (Italians), carnica (Carniolans), and caucasica
	(Caucasians).
 5.	Subspecies of Apis mellifera differ primarily by size.
 6.	A colony of honeybees contain only 2 types of bees, the QUEEN and the WORKERS
 7.	The QUEEN may be recognized by her larger size and the retinue of bees surrounding her.
 8.	DRONES comprise the majority of bees in honeybee colonies.
 9.	Propolis is sometimes called "bee-glue".
 10.	A QUEEN larva is only feed royal jelly, never bee-bread.
	LESSON/TEST #2 Equipment
	LESSON/TEST #2 - Equipment
 1.	The Langstroth movable frame hive is used by most beekeepers
 2.	A MIGRATORY hive cover telescopes down over all four (4) sides of the hive (sides and ends)
 3.	Comb for brood rearing and storage of honey is held in frames.
 4.	Plastic foundation with bees wax discourages rapid comb building by the bees.
 5.	If more than 3/8 inch beespace exists between frames, the bees build comb to fasten the parts
	together.
 6.	Beekeeper clothing is design to protect the beekeeper from bee stings.
 7.	The modern beehive no longer includes a bottom board.
 8.	Only a single type of feeder is available for feeding bees syrup.
 9.	A hive tool is made of metal and is used for scraping and prying.
 10.	Screened Bottom Boards can be a part of Integrated Pest Management (IPM) techniques.



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### LESSON/TEST #3 - Getting Started

1	. Place your beehives so they are fully exposed to prevailing winds.
2	. Blow large quantities of smoke between the frames before removing a frame for inspection.
3	. To limit the affects of a honey bee sting, remove the stinger by scraping as soon as possible.
4	. Packages of bees should only be hived on cold days.
5	. Bees require protein in the form of pollen to produce new bees.
6	. Sunlight is not an important consideration when placing your hives in the apiary.
7	. Before you inspect the hive blow a puff or two at the hive entrance and under the lid.
8	. A pound of bees represents about 1,000 bees.
9	. Make sure to release the QUEEN immediately when you are hiving a package.
1	0. As a rule, supercedure QUEEN cells SHOULD NOT be removed.
	LESSON/TEST #4 – Spring Management
1	. You should not clean out debris and dead bees from a hive's bottom board in the spring.
2	. A good technique to unite weak colonies is a newspaper combine
3	. Exchanging the location of a weak and a strong colony is a good way to re-balance populations.
4	. You can increase the size of your apiary by dividing strong colonies, called splits, in spring.
5	. Weak spring colonies are defined as having 6 or less frames covered with bees by the first necta
	flow.
6	. It is better to have multiple weak hives than a single strong hive.
7	. Conduct your first thorough hive inspection when the temperature is at least 60 degrees F.
8	. Syrup fed in the spring should be a 1:1 ratio of water to sugar.
9	. Every colony inspection should involve locating the queen.
	There are never good nectar flows in early spring



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#### **LESSON/TEST #5 - Swarms**

1.	Most swarming occurs in the late spring during a strong nectar flow.
2.	The old queen leaves with the prime swarm.
3.	Making divides/splits early in the season may help prevent swarming.
4.	Checkerboarding is a well-known method of swarm control.
5.	Crowded conditions in the hive and too much honey (honey-bound) prevents swarming.
6.	Swarm cells and supercedure cells may often be identified by their position on the frame.
7.	Swarms caught after July should never be combined with an existing weak hive in preparation for fall.
8.	Colonies with young queens swarm more readily than colonies with older queens.
9.	In order to maximize honey production beekeepers want to minimize swarming behavior.
10	. Workers build a supercedure cell when they think their present queen may be failing.
L	ESSON/TEST #6 – Summer Management and Products of the Hive
	<b>5</b>
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### **LESSON/TEST #7 – Fall Management**

1	Re-queening colonies in the fall is a common re-queening plan.
2	If bees can not take cleansing flights during the winter it may cause dysentery.
3	Sugar syrup for fall feeding should be a 2:1 ratio with 2 parts sugar to 1 part water.
4	Top ventilation is desirable for over-wintering bees.
5	It is better to overwinter two small colonies than to combine into one before overwintering.
6	Opening the hive during cold winter days, forcing the bees to break their cluster, will not harm the
	bees.
7	Leave the queen excluder on the hive throughout the winter months to keep the cluster down.
8	Mouse guards are a good idea for overwintered colonies.
9	When the temperature is below 50 degrees F, feed your bees fondant or plain sugar.
1	0. A colony in Western Washington requires 120 pounds of honey to overwinter successfully.
	LESSON/TEST #8 – Diseases and Pests
1	There is no effective medication for treating American Foulbrood.
2	Bees owned by negligent beekeepers put surrounding beekeepers' bees at risk for disease.
3	American foulbrood spores can live for 40 years in old woodenware.
4	With European foulbrood few larva survive to have their cells capped
5	
	Sacbrood is much less contagious than foulbrood
6	
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#### LESSON/TEST #9 - Brood Diseases

1. The arrival of the Varroa Mite in North America has had little to no effect on beekeeping methods.
2. All Varroa treatments can be used while honey supers are on the hive.
3. Beekeepers may use the ether roll technique to determine colony mite load (count the mites).
4. Labeled safety protocols for mite treatments are optional.
5. Nosema spores can be observed without the use of a microscope.
6. The Varroa mite is an external parasite that effects both adult honey bees and brood.
7. Improper use of Varroa mite treatment has led to Varroa resistance to some treatments.
8. Integrated Pest Management techniques can help beekeepers deal with Varroa mites.
9. Tracheal mites can reduce the life span of bees.
10. Varroa breed in capped brood cells.
LESSON/TEST #10 – Apiary Management and Product Marketing
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