



## Sustainable Beekeeping, Skills and Knowledge List

UNH Cooperative Extension & Winnepesaukee Beekeepers Association

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### Beekeepers ought to have the following skills and knowledge about beekeeping so as to

- Maintain healthy and productive honeybee colonies
- Increase their chances of a profitable bee related enterprise or
- Gain employment on a successful bee operation.

This skill and knowledge list for beekeeping can be improved. Additional points, changes, and deletions to this list are always welcome. Please feel free to contact Olivia Saunders at Olivia.Saunders@unh.edu or 603.447.3834 to provide your input. Thank you.

Circle your current and desired (target) competence using this scale:

- 1 = No knowledge/skill
- 2 = Some knowledge/skill
- 3 = Well informed/experienced

Recommended knowledge/skill by category	My Current Level			My Target Level		
	1	2	3	1	2	3
<b>Bee Biology</b>						
Understand general bee anatomy	1	2	3	1	2	3
Know the difference between a queen, a worker and a drone	1	2	3	1	2	3
Know the difference between an egg and larvae	1	2	3	1	2	3
Know the strengths and weaknesses between different honeybee species (Italian, Russian, Carniolan, etc.)	1	2	3	1	2	3
Know how to safely handle a swarm	1	2	3	1	2	3
Know how many days from egg to bee for a queen, worker and drone	1	2	3	1	2	3

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<b>Recommended knowledge/skill by category</b>	<b>My Current Level</b>			<b>My Target Level</b>		
<b>Equipment and Products</b>						
Know how to wear protective equipment to safely handle your bees	1	2	3	1	2	3
Know the advantages and disadvantages of 8-frame and 10-frame hives	1	2	3	1	2	3
Know the benefits and weaknesses of wax foundation, plastic foundation and foundationless frames	1	2	3	1	2	3
Know when & how to replace old comb	1	2	3	1	2	3
Know how and when to use a smoker	1	2	3	1	2	3
<b>Starting a hive</b>						
Know where to place a hive in the landscape	1	2	3	1	2	3
Know the needs of the hive for protection from the elements	1	2	3	1	2	3
Know how to protect the hive from predators (bears, raccoons, mice, etc.)	1	2	3	1	2	3
Know the advantages and disadvantages of a nucleus colony versus a package	1	2	3	1	2	3
<b>Seasonal Hive Management</b>						
Be familiar with the beekeepers calendar	1	2	3	1	2	3
Know how to conduct a typical hive inspection	1	2	3	1	2	3
Know how to identify: eggs, larvae, capped brood, pollen, nectar and honey	1	2	3	1	2	3
Recognize a healthy brood/food pattern across frames	1	2	3	1	2	3
Know how to manage your bees to prevent swarming	1	2	3	1	2	3
Know what a colony requires to survive winter	1	2	3	1	2	3
<b>Honeybee Pests and Disease</b>						
Know the signs of a healthy colony versus one that is in trouble or under stress	1	2	3	1	2	3
Know how to monitor varroa mite levels and the various options we have to control mites	1	2	3	1	2	3
Know the various honey bee diseases and the signs that indicate their presence	1	2	3	1	2	3
<b>Honeybee Nutrition</b>						
Know what local floral resources are within 2 miles of your apiary	1	2	3	1	2	3
Be familiar with seasonal calendar of flowering plants, trees and shrubs	1	2	3	1	2	3
Be familiar with winter feeding options, and when it's appropriate to feed what, and when	1	2	3	1	2	3
Understand the impact of drought, when to supplement feed in times of low nectar flow	1	2	3	1	2	3

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<b>Recommended knowledge/skill by category</b>	<b>My Current Level</b>			<b>My Target Level</b>		
<b>Honey</b>						
Know how to harvest honey	1	2	3	1	2	3
Know how to properly store your honey for short and long-term storage	1	2	3	1	2	3
Know the state regulations on the sale of local honey	1	2	3	1	2	3
<b>Wax</b>						
Know how to render clean wax	1	2	3	1	2	3
Know potential options for wax use, such as candles, salves, finishing oils, etc.	1	2	3	1	2	3
<b>Other products from the hive</b>						
Propolis	1	2	3	1	2	3
Pollen	1	2	3	1	2	3
<b>Miscellaneous</b>						
Know the various allergic and non-allergic reactions to bee stings	1	2	3	1	2	3
Know how to treat and care for a bee sting	1	2	3	1	2	3
Know the local laws and ordinances including hive registration and pesticide application permits	1	2	3	1	2	3

*Concept and layout for the “skills and knowledge list” originally adapted from Richard Brzozowski, University of Maine Extension.*

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### **About the Author**

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