

Figure 3 – Bee suit. This bee suit has a pre-attached veil. Photo – University of Florida

\$189.95. The cheaper options would replace your need to purchase helmet, veil, and suit separately. Furthermore, it would lower your overall budget for personal protective equipment. However, the most expensive combos cost more than the best suits, helmets, and veils purchased separately. Yet, they also tend to be a lot better quality than the items that are offered separately.

For more information on personal protective equipment, see:

Ellis, J. 2014. Field guide to beekeeping: personal protective equipment for the body. *American Bee Journal*, 154(4): 375-378.

Tools

Smoker – Smokers (Figure 4) come in a few sizes. I recommend purchasing the largest smoker you can afford. Many smokers



Figure 5 – Hive tools come in all shapes, sizes, colors, and prices.

come with protective grills that limit your ability to touch the body of the smoker when it is lit. I recommend paying extra for the grill. Quite frankly, a maximum cost of \$44 for a smoker is not much to pay when your safety and ability to calm the bees is important.

Hive Tool – The simplest, cheapest hive tools (Figure 5) are as effective as the most expensive ones. They are cheap enough to purchase two. People inevitably lose hive tools. You cannot have too many.

For more information on hive tools and smokers, see:

Ellis, J. 2014. Field guide to beekeeping: the hive tool and smoker. *American Bee Journal*, 154(5): 497 - 501.

Complete Hive

I would like to share a couple of notes about the complete hive before discussing each item separately. First, I am pricing what I consider a standard hive configuration for a Langstroth hive (Figure 6). From the bottom up, this means (1) a bottom board, (2) a deep hive body with 10 deep frames and accompanying foundation, (3) a queen excluder, (4) two medium supers and accompanying frames and foundation, (5) an inner cover, and (6) a telescoping cover. Some people use only two deep boxes as a standard hive while others use alternative configurations. It was impossible for me to account in the table for all possible hive configurations used by beekeepers. Consequently, I list a standard configuration knowing that interested individuals can change each item to match their beekeeping needs. Furthermore, the costs in Table 1 are for unassembled woodenware, whenever possible. Some items, such as bottom boards and inner covers, often are sold assembled. Some beekeepers determine that they can save money if they purchase assembled equipment that is painted already, when available. I share this to note that it usually is cheaper to purchase unassembled, unpainted equipment; but, it does cost one time to assemble the equipment on their own.

For more information on parts of the Langstroth hive and deciding which hive configuration is right for you, see:

Ellis, J. 2014. Field guide to beekeeping: the Langstroth hive. *American Bee Journal*, 154(3): 257- 260.

Ellis, J. 2014. Field guide to beekeeping: hive choice and configuration. *American Bee Journal*, 154(10): 1071 - 1076.

Bottom Board – There are two main styles of bottom boards one can use: screened bottom boards or solid bottom boards. The screened bottoms boards usually come assembled but are a little pricier. To me, they are worth the extra cost given the documented benefits of using them.

Deep Hive Body – For purposes of simplicity, I assumed a common hive configuration where one deep hive body is used as the brood chamber. Deep hive bodies typically come in multiple grade qualities, from budget (the cheapest) to select (the most expensive).



Figure 4 – Every beekeeper needs a smoker. This particular smoker has a grill that surrounds the smoker's body. The grill helps protect the beekeeper from burns.

Deep Frames – I assumed the beekeeper would use 10 deep frames per hive body. Many beekeepers find it more economical to purchase frames already assembled. The prices for frames listed in the table are for unassembled frames.

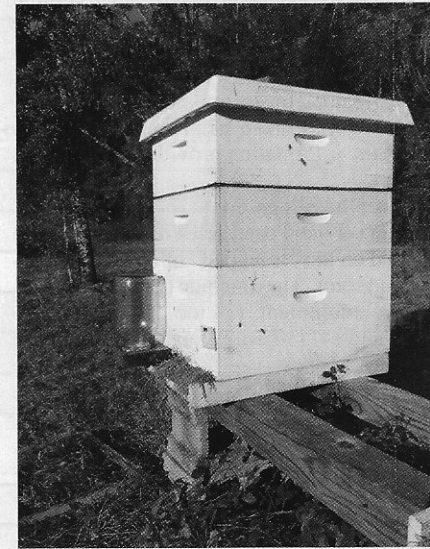


Figure 6 – The “complete” hive described in Table 1. There are many hive styles and configurations. In this article, I describe a hive composed of a bottom board (screened in the case of the hive in the photograph), deep brood box, queen excluder, two medium supers, an inner cover, and a telescoping outer cover. Look closely and you will notice the queen excluder is above the lowermost medium super. I moved it up to allow the bees and queen to cluster in the honey super during the winter months. Normally, I place the excluder between the deep brood box and lowermost medium super.