



Beekeeping Equipment Expenses: Woodenware and Other Components

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Photo: Dan Wynn, © Michigan State University
Bees flying in and out of a hive entrance. Good woodenware will last many years. Take care in your decision on colony configuration before purchasing large orders.

Introduction

Woodenware for a typical honey bee colony includes vertically stackable boxes with removable frames, bottom board, lid and queen excluder. The most common design is Langstroth equipment. Langstroth colony configuration varies widely among beekeepers but is generally standardized within an operation for ease of transport, storage and management.

Colony configuration

Beekeepers in the Pacific Northwest commonly have two boxes for the brood chamber and two to five boxes for surplus honey. Brood chambers are usually two different-sized boxes called deeps (height: 9 5/8 inches) and mediums (height: 6 5/8 inches), also called Dadant, Illinois or western. The main colony configurations are two deeps or one medium and one deep box (Figure 1, page 2).

The honey supers are usually one size: either mediums or deeps. Beekeeping operations use either 10-frame (width: 16 1/4 inches) or 8-frame (width: 14 inches) equipment. Many beekeepers like the reduced weight and cost of 8-frame equipment. However, more 8-frame boxes may be required to provide adequate space to the colony than with 10-frame equipment. The narrower 8-frame colony may allow more colonies to be placed on a flatbed or semi-truck. In recent years, the

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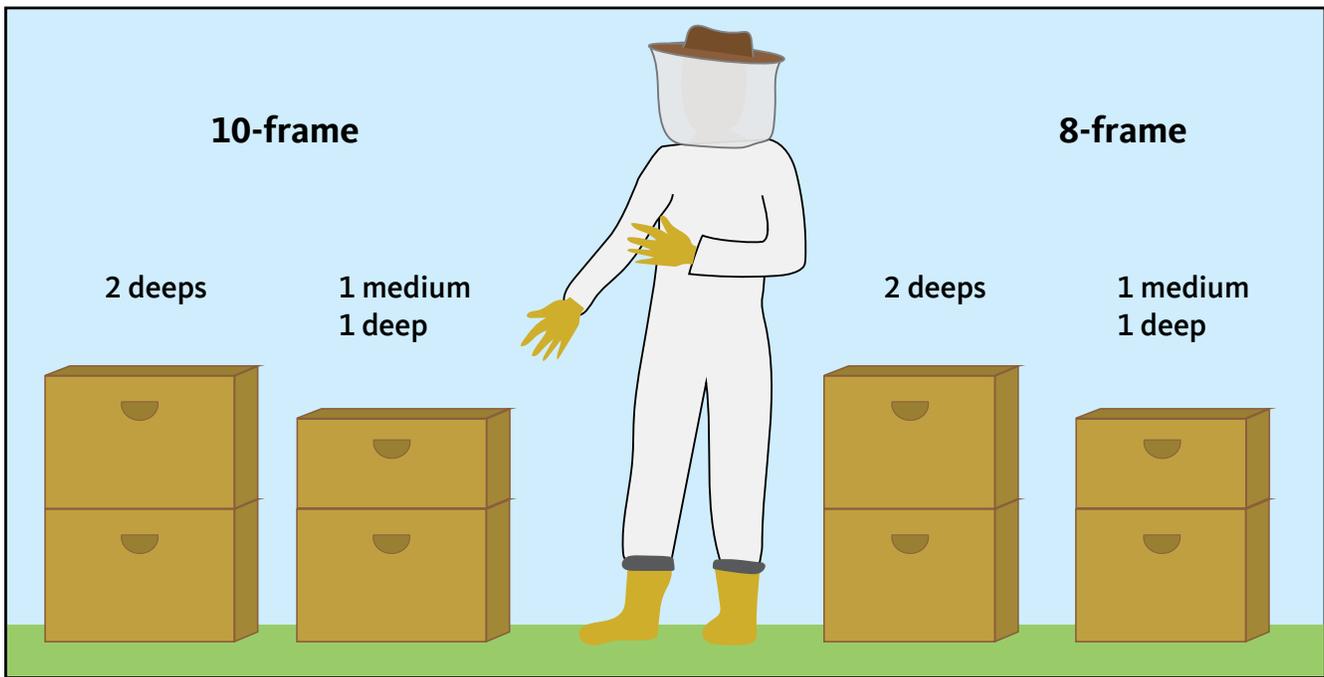


Illustration: Iris Kormann, © Oregon State University
 Figure 1. Common configurations for the brood chamber of a colony.

trend among small-scale beekeepers is to use three mediums as the brood chamber. This results in higher per-colony costs for woodenware (Table 1).

Table 1: Average cost of woodenware for 100 colonies with three different Langstroth colony configurations: two deeps, one deep and one medium and three mediums*

	Two deeps	One medium, one deep	Three mediums
10-frame	\$8,808	\$8,368	\$11,316
8-frame	\$7,798	\$7,480	\$9,945

Sources: Betterbee (Greenwich, New York), Dadant & Sons, Inc. (Hamilton, Illinois), GloryBee Foods, Inc. (Eugene, Oregon), Mann Lake Ltd. (Hackensack, Minnesota), True Wood Products (Addy, Washington), Western Bee Supplies, Inc. (Polson, Montana).

*This table shows the differences in woodenware costs. The table includes woodenware components only for colonies on pallets: two brood boxes, assembled wooden frames with plastic foundation and a migratory lid. Colony configurations vary greatly and may include feeders in place of frames, have preexisting comb, or other differences.

Woodenware and other hive components

There are many factors that influence the cost of hive equipment. These include woodenware quality, bulk purchase discounts and freight costs. In addition to the boxes, each colony requires the proper frames, base (or pallet), lid, feeder and an optional queen excluder. Equipment can be manufactured with basic woodworking equipment or purchased from other beekeepers, beekeeping supply companies or specialty retailers.

Frames are either plastic or wooden with a wax-coated plastic foundation. Frames vary in price (Table 2, page 3). It is common to have a 1-gallon internal or external feeder for each colony. Painted woodenware has a lifespan of about 10 years. Woodenware suppliers may have slightly different dimensions for their hive boxes, so check measurements before purchasing equipment from several different suppliers.

Table 2. Average and range of purchase cost for unassembled commercial-grade woodenware and accessory items in a palletized colony system*

Equipment	Type	Average cost	Cost range
<i>Brood and honey boxes</i>			
Deep	10-frame	\$13.18	\$10.50–\$14.95
	8-frame	\$13.33	\$10.50–\$15.95
Medium	10-frame	\$9.78	\$7.50–\$11.70
	8-frame	\$10.15	\$7.50–\$13.50
<i>Frames</i>			
Wooden, assembled	Deep	\$2.51	\$2.15–\$2.65
	Medium	\$2.41	\$2.05–\$2.55
Wooden, unassembled, plastic foundation	Deep	\$2.23	\$2.01–\$2.46
	Medium	\$1.78	\$1.15–\$2.09
Plastic	Deep	\$2.31	\$2.02–\$3.02
	Medium	\$2.04	\$1.68–\$2.67
<i>Feeder</i>			
Internal	1 gallon	\$7.14	\$4.30–\$8.95
External	1 gallon	\$7.44	\$4.50–\$12.95
<i>Lids</i>			
Migratory	10-frame	\$11.52	\$7.65–\$13.00
	8-frame	\$11.16	\$7.65–\$13.00
<i>Pallet</i>			
Pallet	Used, with clips	\$20.75	\$15.00–\$28.00
Pallet straps	2 straps (\$/pallet)	\$6.58	\$6.50–\$8.00
<i>Queen excluders</i>			
Metal	10-frame	\$6.25	\$5.95–\$6.85
	8-frame	\$6.12	\$5.65–\$6.75
Plastic	10-frame	\$2.96	\$2.60–\$3.20
	8-frame	\$3.05	\$2.90–\$3.20

Sources: Betterbee (Greenwich, New York), Dadant & Sons, Inc. (Hamilton, Illinois), GloryBee Foods, Inc. (Eugene, Oregon), Mann Lake Ltd. (Hackensack, Minnesota), True Wood Products (Addy, Washington), Western Bee Supplies, Inc. (Polson, Montana).

*Listed bulk prices are in 100-unit increments for boxes, lids, feeders and queen excluders and 500-unit increments for frames. Cost of paint and assembly labor not included.

Further reading

Beekeeping woodenware equipment

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About this series

In this series, *Budgeting for a Commercial Beekeeping Operation in the Pacific Northwest*, we describe potential revenue streams and expenditures associated with a commercial beekeeping operation. This publication does not discuss depreciation, interest, taxes, insurance costs or enterprise budgets. Refer to the “Further reading” section for detailed beekeeping business plan guides.

Included in this series:

- *Fact Sheet 1: Revenue Sources for a Commercial Beekeeping Operation in the Pacific Northwest*
- *Fact Sheet 2: Operational Equipment Expenses for a Commercial Beekeeping Operation in the Pacific Northwest*
- *Fact Sheet 3: Beekeeping Equipment Expenses: Woodenware and Other Components*
- *Fact Sheet 4: Honey Bee Colony Maintenance Expenses: Supplemental Feed, Requeening and Medication*

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