Purchasing Pre-inoculated Blocks

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Pre-inoculated blocks are a great starting point for new growers, given that the "hard part" of propagation, inoculation, and spawn run is complete; in other words, the blocks are ready to fruit and provide a yield for you. But the process is not without several points of consideration that can make or break the potential yields and profits.

Key Considerations for Sourcing Blocks

- Cost per block and your distance from source (distance affects overall cost)
- Vendor shipping or pickup logistics
- Storing blocks in cold storage or introducing them to fruiting room on arrival
- Effects of shipping or transport on block quality
- Shipment scheduling and reliability
- Species selection and species' fruiting needs and cycles

1. Examples of Cost per Block + Shipping

The bottom line, of course, will be heavily affected by the cost of the block itself.

Typically blocks come in five-pound or 10-pound units.

For bulk ordering, prices are about \$6–\$10 per five-pound block and \$9–\$15 per 10-pound block. Contact vendors directly for current pricing.

Shipping costs are highly variable. Some suppliers ship via FedEx or UPS, and others take only freight orders via pallets with a minimum number of blocks. Others offer only pickup. Suppliers have limited shipping options, so a grower looking for shipping will choose from a small number of companies offering this service.

Shipping to New York from the two vendors below cost about \$3.40 per five-pound block for a box of eight sent from Wisconsin. Tenpound blocks cost \$3.57 per block for freight shipping with a minimum of 140 blocks per pallet. Shipping is based a variety of factors, contact vendors directly for costs specific to your location.

Yields of 1.25 pounds per smaller block and 2.5 pounds per larger block are likely. Average low yields (depending on species) are typically about one pound per smaller block and two pounds per larger block.

Labor and energy costs to fruit, harvest, and store the mushrooms aside, the break-even price per pound of mushrooms is the combined cost of the block and shipping divided by the number of pounds yielded by the block.

The most cost-effective option will probably be picking up the blocks—*if* a high-quality vendor is available within a two-hour radius (four-hour round trip).



2. Vendor Logistics

In using ready-to-fruit blocks, a grower replaces the logistics of the first half of mushroom cultivation with the logistics involved in a shipping or freight supply chain. These logistics may even preclude using certain vendors.

Questions to Consider

- Does wholesale pricing require a minimum order?
- What are the shipping options?
- What equipment is required to receive blocks? (Freight often requires a loading dock and forklift.)
- What are the recommended practices for unpacking blocks and preparing them for fruiting?

3. Cold Storage vs. Directly to Fruiting Room

If a grower can pick up or receive a bulk shipment of blocks, they are likely to save on cost per block. Variability in shipments is better controlled by having "stock" on hand to consistently introduce new blocks to the fruiting room. In the absence of cold storage, the grower must be prepared to receive all blocks and introduce them to the fruiting room as soon as they arrive.

4. Effects of Shipping and Transport on Block Quality

Whether a grower uses shipping or picks up blocks, it is important not to expose the blocks to major fluctuations in temperature, especially too much heat. This can lead to contamination and render the blocks unproductive. Most commonly, Trichoderma mold and brown blotch develop in response to overheating. Access to cold storage (a refrigerator or walk-in cooler) can optimize conditions to maintain healthy blocks, store blocks from a bulk purchase, and introduce them to the fruiting room over two to four weeks. It also allows for cooling transported blocks before introducing them to the fruiting room.

5. Shipment Scheduling and Reliability

As with any product, vendor consistency is only as good as the integrity of the vendor. Typically, vendors want to schedule shipments weeks or months in advance, as they must inoculate blocks at least four weeks before harvest windows to allow for spawn run before shipping or transport. Newer vendors may not have this workflow down, and stock can vary. Both of these factors will affect the blocks you receive. Finding a vendor who prioritizes communication and transparency is important—one who will notify a grower of any relevant production problems.

6. Species Selection, Fruiting Needs, and Fruiting Cycles

Not all mushroom species are created equal. A mistake many new growers make is too much diversity and not matching species to growing-room conditions. Generally, one can start with temperature to sort species:

Blue and White Oyster (65°F–70°F) Yellow and Pink Oyster (65°F–75°F) Shiitake (65°F–75°F depending on strain) Lion's Mane (65°F) Black Pearl and Black Oyster (65°F) King Oyster (50°F–55°F) Chestnut and Pioppino (65°F)

Shiitake and king oyster do best in their own fruiting chambers. Shiitakes thrive in higher CO_2 conditions (1500–1700 ppm), while king oysters prefer much cooler temperatures (50°F–55°F).

Blue oyster, lion's mane, and black pearl oyster make a good starting combination if a grower wants to diversify species. All three species thrive in conditions around 65° F (not to exceed 70° F), with 85% humidity and under 800 ppm of CO₂.

Sampling of Vendors Offering Wholesale Blocks

Field and Forest Products (WI)

Offers bulk shipment via UPS or FedEx of eight five-pound blocks per box. Produces a high-quality, reliable product (ask for Derrick).

Maine Cap 'n Stem (ME)

Offers shipment of 120–140 blocks (pallets) of many species. Very high-quality, low-contamination product. Requires a lead time of two to four weeks for orders.

Borrowed Land Farm (NC)

Family gourmet mushroom farm. Produces shiitake, maitake, reishi, lion's mane, oyster varieties, and more.

Lambert (PA)

Offers shiitake and oyster varieties. Shiitake logs may be imported from China.

Ten Mile Mushrooms (PA)

Works with regional and national freight distributors. Offers blue oyster, yellow oyster, pearl oyster, Italian oyster, chestnut, lion's mane, pioppino, shiitake, and king oyster.

American Mushrooms & Spice Co (Midwest)

Welcomes new commercial customers, but depending on order size, processing an order may take several weeks.

Note: Many small-scale mushroom growers can also supply blocks. If you have a local mushroom farm, reach out to see whether they are willing to sell their blocks.