

Growing Black Turtle Beans

If you are considering an alternative enterprise to supplement your income, try growing black turtle beans. The black turtle bean is a member of the dry, edible bean group. Other beans in this category include navy, kidney, and pinto.

Varieties

The two recommended varieties of black turtle beans are listed in Table 1.

Table 1. Recommended Varieties

| Variety | Days to Harvest | Growth Habit |
|-------------------|-----------------|--------------------|
| Midnight | 95–100 | Upright short vine |
| T-39 Black-Turtle | 93–98 | Semi-vine |

Soil Preparation and Fertilization

Plant black turtle beans in nearly level fields. The beans require a loamy soil high in organic matter and with good drainage. Fine textured soils tend to be poorly aerated and drained. Course textured soils, such as sand and sandy loams, are droughty.

The soil used to grow black turtle beans should have a pH of 6.0 to 6.5. Have your soil tested by a soil testing laboratory before

you prepare it for fertilization and planting. For a list of soil testing labs, check with your county agent or go to the web at <http://www.agnr.umd.edu/soiltesting>.

Soils testing in the medium- to high-fertility range should be fertilized with the following total amounts per acre:

- 40 to 60 pounds of nitrogen, 40 pounds of phosphorus, and 40 pounds potash
- or
- 400 to 500 pounds of 10-10-10.

Split applications are more effective. Apply one-half of the nitrogen and all the phosphorus and potassium before planting and disk them in. In 3 to 5 weeks, sidedress with the remaining nitrogen.

Planting

Plant the beans after May 15 or when the soil temperature reaches 60°F. Early planting is preferred over July planting as the crop will mature and die down better in late August than in October.

Plant seeds 1 to 1-1/2 inches deep in rows 30 inches apart in moist soil. Use 50 pounds of seed per acre (4 to 5 seeds per foot). Conventional tillage is preferred to no-tillage because of weed problems, but no-till beans will grow well. Narrow rows tend to give better yields, but 30-inch rows are required for cultivation.

Controlling Pests

Weeds

Registered herbicides for black turtle beans do not always control annual broadleaf weeds and grasses. Often two cultivations are necessary because of problems with quack-grass, ragweed, nutsedge, and velvetleaf. Table 2 lists the registered herbicides recommended for the control of annual broadleaf weeds and grasses.

Diseases

By practicing some precautionary measures, you can reduce the chances of disease affecting your bean crop. Diseases have not been a problem for black turtle bean farmers in Delaware who take the following precautions:

- Buy certified seed grown in the western United States (the seed should be treated).
- Use the recommended varieties because they are tolerant or resistant to halo blight, mosaic virus, and anthracnose.
- Control insects.

Insects

Black turtle beans are attacked by the same insects that harm lima beans, snap beans, and soybeans. The most common pests are thrips, mites, leafhoppers, and Mexican bean beetles. Check your fields weekly for these insects and apply sprays as needed. Registered insecticides include Sevin, Orthene, Lannate, Cygon, Guthion, and Malathion. Check with your local Extension agricultural science agent to confirm the insect identification and control recommendation.

Harvesting

Harvest black turtle beans when 90 percent of the leaves have fallen and the stems and pods have lost most of their green color. If possible, harvest the beans at 18 percent moisture. Beans may be mechanically harvested with combines by reducing the cylinder speeds to 150 to 200 revolutions per minute. Try to prevent beans from splitting and cracking to ensure high quality.

Table 2. Recommended Herbicides for Annual Weeds and Grasses

| Herbicide | Applications (amount/acre) | Remarks |
|-----------------------------|----------------------------|---|
| Eptam | 3-1/2 pt | Broadcast and incorporate 1 to 10 days before planting. |
| Treflan 4E | 1-2 pt | Broadcast and incorporate immediately before planting. |
| Eptam 7E plus Treflan 4E | 3-1/2 pt 1 pt | Broadcast and incorporate immediately before planting. |
| Amiben 2 S | 1-1/2 gal | Apply to surface after planting. Works best following Eptam or Treflan. Use lower rate on sand. Heavy rains reduce effectiveness. |

Monitor the humidity closely when harvesting and storing black turtle beans. Beans harvested at a moisture point of 20 to 22 percent will store only a few days, but will store for several months at a moisture point of 16 to 18 percent. For long-term storage, dry the beans to 15 percent moisture at temperatures not exceeding 100°F.

Marketing

You can market black turtle beans like soybeans. A grain elevator near Wye Mills (Eastern Shore) serves as the receiver for Maryland and Delaware farmers. To bring the best prices, keep the beans free from mechanical damage and foreign matter, and control the moisture so it does not exceed 18 percent.

Beans can be marketed in a variety of ways. They can be processed either as canned goods or consumer packages for soups and sauces, sold as dry beans, or exported for consumer consumption. Pick-your-own operations or tailgate markets are other methods for selling your produce.

Costs and Returns

Expenses

| Input | Cost/acre (in dollars) |
|---|---------------------------|
| Fertilizer 500 lb (10-10-10) | 33 |
| Lime | 6 |
| Seed | 30 |
| Chemical Cost (Orthene, Treflan, Captan) | 20 |
| Interest | 3 |
| Plow | 15 |
| Disk | 10 |
| Planting | 10 |
| Cultivation | 10 |
| Harvesting | 25 |
| Hauling | 3 |
| Overhead | 25 |
| Total Costs/acre | 190 |
| Break-even price/lb at 1650 lb/acre yield | 011.5 |

Returns

| | Yield/acre | Price/lb | Total | Price/lb | Total |
|---------|------------|----------|-------|----------|-------|
| High | 2,000 | \$0.17 | \$340 | \$0.15 | \$300 |
| Average | 1,650 | 0.17 | 281 | 0.15 | 248 |
| Poor | 1,250 | 0.17 | 213 | 0.15 | 188 |

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Issued in furtherance of Cooperative Extension work, acts of May 8 and June 30, 1914, in cooperation with the U.S. Department of Agriculture, University of Maryland, College Park, and local governments. Bruce L. Gardner, Interim Director of Maryland Cooperative Extension, University of Maryland.

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