

Raising Trout in Ponds in West Virginia

West Virginia University
Extension Service



If you plan to raise trout in ponds in West Virginia, consider the following factors:

Location

- Road access for stocking and harvesting
- Pond site above the flood plain
- Pond within view of the producer or fenced to prevent trespassing

For seasonal production, continuous water flow and/or aeration of the pond is not necessary. However, for sites that support year-round production, continuous gravity-fed water flow or spring flow and supplemental aeration of the pond is required. Access to electricity at the pond is needed for aeration.

Suggested dimensions for an aquaculture production pond are at least 1/2-acre in size with an average depth of six feet. Ponds to be used for open pond aquaculture must have adequate drains for harvest.

Water Quality and Quantity

Temperature: 55 - 65 degrees F, pond surface temperature should not exceed 70 degrees F in summer

pH: 6.5 - 8.0

Total hardness: 10 - 400 mg/l

Total alkalinity: 10 - 400 mg/l

Iron: 0.15 - 0.5 mg/l

Dissolved oxygen: near saturation, not less than 10 mg/l

Ammonia: temperature and pH dependent

Carbon dioxide: less than 15 mg/l

Water must be free of other contaminants i.e., heavy metals, pesticides, herbicides, or fertilizer residues.

Stocking

Open Pond Culture

Stock in mid-October when pond water temperatures are 60 degrees F or below. Stock 6" fingerlings or larger to produce a one-pound trout by May. You can raise 3,000 trout per acre in ponds with no supplemental aeration.

Cage Culture

In situations where open pond culture is not practical, trout can be raised in cages. A walk-on dock is desirable for cage handling, stocking, feeding, and harvest.

The following chart is a guide for stocking trout cages:

Dimensions in feet	# Trout
4 x 4 cylindrical cage	400
4 x 4 x 4	500
8 x 4 x 4	1,000
8 x 8 x 4	2,000

Fewer trout can be raised in cages than in open pond culture. Stocking recommendations are 2,000 trout per surface acre. Cages should be evenly spaced to allow circulation of water through the cage. Cages must be placed at a depth to allow at least two feet of water under the cage for circulation.

Feeding

Trout feed according to their size and according to water temperature. Largest gains in growth will be made from October to mid-December and from late March to mid-May. Feeding activity will slow considerably during the coldest months of the winter, but occasional feeding is needed to maintain weight and health of fish. The following feeding guide is recommended for winter culture of trout:

Water temperature in degrees	Amount of feed	Frequency/week
Below 40	5% body weight	3-4 times
41 - 50	1% body weight	6-7 times
51 - 55	2% body weight	7 times
56 - 63	3% body weight	7 times
64 - 70	3.5% body weight	7 times

Develop a regular feeding schedule that allows daily feeding, twice per day if possible. Trout should be fed as close to the same time of day as possible. In open pond culture, feed should be delivered around all edges of the pond.

Harvesting

Trout should be harvested before the pond surface water temperature reaches 65 degrees F. Open ponds must be drained to allow net harvest of fish. Fish should be held off feed for two days prior to harvest to lessen handling and/or transport stress. Cages should be removed from the water, cleaned thoroughly, and allowed to dry. Inspect mesh and lacings for tears or frays.

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<http://www.wvu.edu/~agexten/aquaculture/troutpon.htm>