

**NATURAL RESOURCES CONSERVATION SERVICE
CONSERVATION PRACTICE STANDARD**

FISH POND MANAGEMENT

(Number)

CODE 399

DEFINITION

Developing or improving impounded water to produce fish for domestic use or recreation.

PURPOSE

To improve or maintain fish production and fishery use by making a favorable water habitat, supplementing natural food supplies, and reducing competition from unwanted plants and animals.

Where Applicable. In ponds, lakes, and reservoirs where a crop of fish is wanted.

PLANNING CONSIDERATIONS

Water Quantity

This practice will not affect the quantity of the water budget.

Water Quality

The addition of pesticides, nutrients, or supplemental foods to enhance the fishery or the resultant by-products of feeding fish will affect the quality of both surface and groundwater.

The addition of any substance used to enhance the fishery, which dissolves in the water, will increase the movement of these substances into the groundwater.

Nutrients added to the fishery will increase the biological productivity of food chains associated with all water related wildlife habitats.

Increased nutrient levels will cause an increase in aquatic plant production and affect subsequent visual quality. Too much production at the lower food chain levels could cause undesirable coloring of the water with "algae blooms" and reduced visual quality. Increased production of higher forms of aquatic plants may be desirable for visual quality.

SPECIFICATIONS

1. Water Quality, Quantity, and Stocking.
(Minimum Treatment)

A. Ponds will meet minimum pond specifications.

B. Ponds will be stocked with fish as specified in 3.A or 3.B below.

C. Livestock must be excluded to maintain water quality.

D. Oxygen levels in trout ponds will be maintained at a minimum of 5 parts per million, and temperatures between 48 and 70 degrees Fahrenheit.

2. Fertilization.

Generally not recommended in the Midwest. Apply only where intensive management is planned. Contact local DNR fishery biologist for recommendations.

3. Stocking.

A. Sportfishing:

1) These stocking recommendations are for ponds without existing fish populations.

2) In warm water ponds in Iowa, a Largemouth Bass, Channel Catfish, and Bluegill combination will provide the best utilization of available foods. Stock 1,000 Bluegill and 100 Catfish fingerlings per acre in the fall. The following year, stock 70 Largemouth Bass fingerlings per acre in the spring. Largemouth Bass or Bluegill will not be stocked alone. Refer to Biology Technical Note #7.

B. Commercial Production:

Stock between 1,000 and 2,000 Fingerling Channel Catfish per surface acre. Stocking rate will depend upon experience of operator and level of management. Refer to Biology Technical Note #1 when rearing Catfish in cages.

4. Aquatic Weed Control.

A. Mechanical Control:

1) Remove free floating weeds by seining or raking: rooted weeds by raking, pulling, or cutting before they become extensive. Six domestic ducks per surface acre will normally control free-floating duckweed. More than this may foul the water and the shoreline.

2) Shade the vegetation by floating a sheet of black polyethylene or vinyl on the surface and anchoring it in place. The absence of sunlight will kill

the vegetation within three weeks.

3) Deepen the edges of the pond so that water is a minimum of three feet deep, six feet from the edge of the water.

B. Chemical Control:¹

1) Certain herbicides provide effective aquatic weed control. If used, they should be applied only when needed. Manufacturer's directions for use and precautionary measures should be strictly followed. If not handled properly, herbicides may be injurious to humans, domestic animals, desirable plants, honeybees, and other pollinating insects, and fish and wildlife.

2) Best results with most herbicides are obtained when aquatic plants are treated in early stages of growth (Spring). Proper identification of the plant is important to identify the correct herbicide for control.

3) Do not use chemicals that are not recommended for use in waters from which fish are to be used for human consumption.

5. Supplemental Feeding.

Supplemental feeding is usually not needed except in commercial production. Use only commercial feeds and feed according to recommendations of the feed manufacturer which is generally about three percent of body weight per day.

6. Control of Diseases and Parasites.

Consult local Iowa Department of Natural Resources Wildlife Management Biologist or Fisheries Management Biologists for recommendations.

7. Harvest.

A. Iowa ponds can provide about 250 pounds of Bluegills per surface acre of water; hence, this species will provide most of the fishing in a pond. Harvest of Bluegills can be started the second year after stocking. Bluegill limits need not be imposed because they are plentiful.

B. Bass populations in a balanced Iowa pond will reach 50 to 75 lbs. Per acre, approximately 1/5 that of Bluegill. Bass should not be removed from the pond until the fourth year after stocking. No more than 10-15 Bass per acre over 15 inches in length should be removed annually. Greater harvest rates will reduce the quality of both Bass and Bluegill fishing. Restrict or control pond access.

C. Catfish, in general, do not reproduce well in Iowa farm ponds. They can be harvested as desired and restocked as needed.

8. Population Control.

To control too many small fish, draw the pond down to 50 percent of normal surface area. Drawdown water level should be attained by mid June and extend to October while water is still warm. The pond should be allowed to refill by freeze-up time. Lowering the water level forces the small fish into a lesser amount of water, allowing easier predation by the Bass.

9. Renovation.

To remove an unbalanced or undesirable fish population, drain the pond or draw the water down to a depth that will not allow their survival through the winter. For ponds that do not have a drawdown capability, apply an approved fish toxicant.¹

References:

Iowa's Farm Ponds, Iowa Conservation Commission, 1979.

Biology Technical Note #1, Rearing Channel Catfish in Cages.

Biology Technical Note #7, Fish Pond Management Information.

¹ Any herbicide or fish toxicant used must be federally and locally registered and must be applied strictly in accordance with registered uses, directions on the label, and other federal or state policies and requirements.