

TECHNICAL NOTES

U. S. DEPARTMENT OF AGRICULTURE

Portland, Oregon

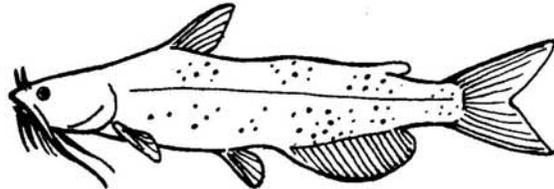
SOIL CONSERVATION SERVICE

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CATFISH, Channel (*Ictalurus punctatus*)
CATFISH, Blue (*Ictalurus furcatus*)

Channel catfish is one of the most popular and profitable fish to grow in farm ponds. It occurs naturally in many large streams of the United States, is a desirable sport fish in sizes of one to three pounds or larger, and is a good-tasting table-fish in sizes from one-fourth pound upward. Research and SCS experience in the Southeastern states have developed successful techniques for farmpond management that is profitable for either sport fishing or commercial production and marketing.



Blue catfish, another species in the Mississippi River drainage and more recently tested, appears to have similar requirements and equal production.

MANAGEMENT METHODS AND SPECIFICATIONS

The following methods are those proven well in Alabama, Arkansas, Georgia, and Louisiana. This system should be tried faithfully in warm-water ponds in Western states, the growth-rates and yields recorded by the pondowners and SCS Biologists, and the results compared with Southeastern success.

Natural waters, unfertilized and unfed, produce yields of only 100 to 200 pounds per surface acre and provide poor fishing success; therefore have little promise in farm ponds.

Fertile ponds, unfed, produce a standing crop of 400 to 500 pounds per surface acre, but the annual yield to fishing is about 100 pounds per acre - insufficient to be profitable.

Proper stocking and daily feeding produce 800 to 1500 pounds of fish per surface acre - yielding 600 to 1200 pounds of fishing per acre annually, or the 800 to 1500 pounds per acre for commercial sale - for net incomes of \$150 to \$250 per acre annually. This level of management, called "fish farming", is the one to try first.

Size of pond may be from 1/10th acre, upward.

Ponds for fish farming require complete control of the water entering and leaving the pond. Floodwaters should be by-passed, outlets screened to prevent escape of the fish, and the water supply should be free of wild fish.

Proper harvesting basins, 18 to 24 inches below the main pond bottom, and drain pipes are highly desirable for final harvesting.

Depth of ponds should be 2 to 5 feet - 2 or 3 feet at the upper end and sides, 4 or 5 feet at the drain-gate outlet.

Length of time planned from stocking to harvest, early spring stocking (as soon as pond waters reach 50 to 60 degrees Fahrenheit at mid-afternoon surface temperatures) is more profitable than fall or mid-summer stocking. Fishing can begin by August or September the first year, and continue until cold weather the second fall - 18 to 24 months; or complete commercial harvest can be made when the catfish reach the size that brings the best prices per pound (usually one to two pounds).

Size and age of brood fish to stock in brood ponds, start from a dry pond to be sure that no undesirable fish are present. Place spawning containers (barrels, milk cans, kegs, boxes, culvert pipe, tile or boxes) at a rate of 20 or more per acre, staking them down, in areas that will have 3 to 4 feet of water. Fill pond with well water or filtered surface water in May. Stock with 20 pair of brood fish per acre when water reaches about 60°F. Use fish that are three years old and at least three pounds each in weight. Brood stock must be in excellent physiological condition. Brood ponds may vary from 1/10th to two acres each. Feed both brood fish and fingerlings six or seven days per week at a rate of three percent of their total body weight.

Stocking rearing ponds, when newly hatched catfish reach 1 to 2 inches in length (July) transfer them from the brood ponds to rearing ponds at the rate of 20,000 to 40,000 per acre. Each 1000 of the 1 to 2-inch fingerlings weigh from 1.3 to 3.5 pounds. Put on three to five percent feed schedule six or seven days per week. Fish should reach 4 to 8 inches before cold weather. Halt everyday feeding when water drops below 60°F. Fingerlings should be fed two or three times on warm days (water temperature 50° to 60°F) in winter at the rate of ½ of one percent of their total estimated body weight. (This total winter weight should be 800 to 1200 pounds per acre, or even higher). The fingerlings will not grow appreciably in winter when water temperatures are below 60°F.