



## Fee Fishing

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Fee fishing is becoming a popular form of recreation throughout the country. It appeals to many because it offers a guarantee of good fishing without long travel times or the need for expensive equipment. If you are looking for an intensive business opportunity, then a "fish-out" operation may meet your needs. If you have a good fishing pond or lake on your property you may wish to consider long-term leasing or day leasing as a source of additional income. Fee fishing enterprises involve just as much people management as fish management, so operators should be adept at interacting with people and making them feel welcome.



### Fish-Out Operations

In this type of fee fishing operation, specially built ponds are restocked with large fish many times each year. Channel catfish are the recommended fish for fish-outs because they are available in abundance and are able to survive handling and transport well. Rainbow trout can be used during winter months when water temperature is below 60°F and catfish are no longer biting. A high level of investment and good business sense is needed in addition to fish management skills.

The four leading reasons why people go to fishout operations are for good fishing, family activity, amenities, and because it is a fun and safe activity, in that order of importance. The majority of customers are usually in family groups or in a group of family and friends. Many customers of fish-out operations are retired or disabled. Keep these facts in mind as you plan your operation.

### Location

Most successful fish-out operations are on a well traveled road, and close to a city or large town. Some successful operations are located close to popular fishing areas. One fish-out operation should service the area within a 25-30 mile radius. Do not crowd existing operations unless you are confident that there are enough customers to support more than one facility.

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The site selected for ponds should be less than five percent in slope and soil should contain enough clay to hold water. Consult your county Soil Conservation Office for advice on suitability of sites for pond construction. Fifty gallons per minute of water flow per surface acre of pond is recommended to allow rapid pond refilling and restocking. Well water is preferred over surface water because it contains no wild fish which could contaminate the pond. Water should have a pH of between 6.5 and 8.5 and levels of total alkalinity and total hardness that are about equal and that are a minimum of 50 ppm. Chlorinated water supplies are toxic to fish and should not be used.

### Pond Design

Levee type ponds, in which soil is removed from the pond area to form a perimeter of levees are recommended for fish-out operations. Ponds should hold about four feet of water at the shallow end and six feet at the deep end. The ability to drain ponds is critical since a significant percentage of the fish will become hook-wise. These must be removed by seining and draining from time to time so that the operation can turnover enough fish to be profitable. Levee slopes should be gentle enough to allow mowing with a tractor. Curved levees are not recommended due to increased difficulty of seining. Complete details on levee pond design is given in the publications SRAC 100, "Site Selection of Levee-type Fish Production Ponds" and SRAC 101, "Construction of Levee-type Ponds for Fish Production." These are available through a county Extension office.

Rectangular ponds between one-half and one surface acre in area are usually preferred. A pond width of 100-150 feet is wide enough to allow privacy but still narrow enough for ease of seining. Three or more ponds are recommended to ensure good fishing.

### Landscaping

In planning the landscape both customer appeal and security must be kept in mind. A well-surfaced parking area should be located within easy walking distance of the ponds, but not so close that the noise of vehicles disturbs fishermen. Paths should lead customers to an entrance area where entry and exit can be supervised. Other areas should be relatively smooth to allow regular mowing. In most cases, complete fencing of the pond area is recommended. Security lighting of more remote parts of the ponds is desirable. Paths leading to the ponds are needed to minimize the effects of heavy foot traffic.

Pond levees should be kept free of trees, permanent seats, and any other objects that would interfere with seining and pond maintenance. Regular mowing of levees is needed to discourage snakes. A sickle-bar attachment is needed to mow levees to the water line. Picnic tables and playground equipment can also be considered for adjacent areas. Life saving equipment should be available at each pond.

### Service Areas

A multi-purpose building is usually located at the entrance. Money for entrance fees and fish caught is collected here. Amenities such as refreshments, bait, tackle, and a fish cleaning service are usually offered. Many operators report greater profits from these secondary services than from the sale of fish.

Rest rooms should be located in full sight of the cashier to allow for good supervision. Rest rooms and other out-of-the-way places are a temptation for some customers to dump fish they have caught instead of paying for them.

A fish cleaning facility should be included in your plans since this service will be expected by many customers. Fish processing permits and facility requirements are discussed in the OCES information sheet, "Permits and Regulations Affecting Oklahoma Fish Producers," available through a county Extension center. Live holding vats are also needed for customers who wish to purchase fish without fishing. A publication on the construction and use of live holding vats is available through the county Extension office.

### Pricing

An entrance fee of a dollar or two is usually charged to keep out unwanted traffic. Caught fish are generally sold by the pound at a price between the local wholesale and retail prices for live catfish. Catfish from the live holding tanks are usually sold for the local retail price.

Some operations sell tickets that permit the customer to catch a set number of fish. The attraction is that catfish in ticket ponds are larger than those in other ponds. A few very large catfish are thrown in for real excitement.

### Advertising

Most anglers come to a fish-out operation based on word of mouth, so it pays to be sure customers are satisfied. A professionally painted sign that is large enough to be seen and well located is usually well worth the expense. In the start-up period other forms of advertising can also be useful. Advertisements in local papers showing a photo of the lucky angler with the largest fish of the week can attract customers. Some operations also sell or give away baseball caps, t-shirts and other articles of clothing that have a logo advertising the operation.

### Fish Management

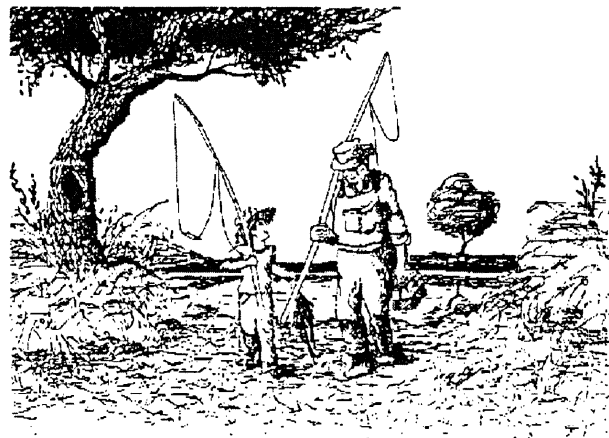
Catfish are stocked in fish-out ponds at very high levels, usually between 5,000 and 10,000 pounds per surface acre. If water temperature differs more than 10°F between the hauling tank and pond, then fish must be slowly tempered by adding pond water to the hauling tank before stocking. The same is true if pH differs more than one unit. Your supplier must be someone whom you can trust to sell only your top quality fish and to handle them properly during transport and stocking.

Fish are fed one to two percent of their total body weight twice a week during spring, summer, and fall. Heavier feeding rates are likely to lead to water quality and disease problems. The objective is to maintain fish weight and good health, not for the fish to gain weight. A floating type catfish feed with complete vitamin/mineral mix and at least 32 percent crude protein should be used. Feed on days when fishing pressure is the lightest. Record keeping is important so you always know the amount of fish in each pond. Records of the weight and number of fish stocked, weight and number of fish caught, and dead fish removed each day will help you to stay current in your operation. This information may also be helpful in future advertising efforts.

In some cases it may be possible to attract enough trout fishermen to justify stocking rainbow trout. These can be stocked in the fall after water temperatures are going to remain below 70°F. Likewise in the spring any remaining trout must be harvested before temperatures rise to 70°F.

Dissolved oxygen, ammonia and nitrite levels in each pond should be determined regularly using meters and/or chemical test kits. In addition, you should have access to the services of a fish disease diagnostic laboratory. Oklahoma State University and Langston University operate such labs in Ada and Langston, respectively. Aeration equipment should be available for each pond to maintain a minimum of 3 ppm of dissolved oxygen. Further information on water quality can be found in the Langston University publication, "Water Quality Management for Fish Farmers."

Fish-out operators report that only  $\frac{2}{3}$  of the fish can be caught by hook and line; the remainder must be harvested by seine. A market must be found for these fish even if some must be sold at a loss. Most operators sell as many as possible to walk-in customers from their live holding vats. Information on the construction and use of catfish holding vats is available in the OSU Extension Facts of the same name. There are some tricks of the trade that have been reported to reduce the number of non-biting fish. These include stocking a pond a few fish at a time instead of all at once, seining and restocking in a different pond, and applying potassium permanganate to the pond.



## Harvesting Equipment

Seines should be  $1\frac{1}{2}$  times as long as the width of the pond and  $1\frac{1}{2}$  times the depth of water. As in other forms of catfish farming, a mud line is recommended for the bottom of the seine. A mud line is a bundle of rope that runs the length of the seine and prevents the bottom of the seine from digging into the mud. Seines with a square mesh size of  $\frac{15}{8}$  inches will retain one pound fish. A  $\frac{13}{8}$  inch square mesh size will retain  $\frac{3}{4}$  pound catfish. Most catfish farmers use polyethylene seines because they do not require net coating. Net coating is used on nylon seines to prevent catfish spines from being entangled in the net.

## Long Term Leasing

In this form of fee fishing, angling and other rights associated with the use of a pond or lake are leased to an individual or group for a period of a year or longer. Most long term lease arrangements are for ponds or lakes larger than five acres in size. Management of the pond and surroundings may be either the responsibility of the lessor or lessee.

To eliminate the need for restocking, largemouth bass and bluegill are recommended as the major species in this type of operation. By regulating harvest of bass, fish populations can be managed to produce large bass or bluegill or a mixture of quality size fish of both species. For further details on managing bass and bluegill populations, the reader is referred to the excellent publication, "Producing Fish and Wildlife from Kansas Ponds," available for \$2.50 from Fisheries and Wildlife Division, Kansas Dept of Wildlife and Parks, R.R. 2, Box 54A, Pratt, KS 67124, Attn. Pond Book 2nd ed.

A long term lease on a pond that provides excellent quality fishing, is pleasantly landscaped, and close to wealthy potential lessees can be expected to be worth a substantial amount. The number of anglers that can be supported per surface acre of pond will vary with the pond and the management method used. You may wish to seek the assistance of a fisheries biologist in estimating the number of anglers a pond can support.

The services of a lawyer are recommended in the drafting of a lease agreement. The lease should specify any catch limits, additional privileges such as camping and swimming, a schedule of management practices to be carried out, responsibility for management and the cost of liability insurance, legal liability statements, privileges to be retained by the owner, and conditions under which the lease can be broken.

## Day Leasing

Charging a flat fee for the right to fish for a day is best done in ponds that are between five and ten acres. A pond of this size is large enough to provide some privacy for anglers but not so large that poachers can easily sneak in and out if the area is not fenced. Largemouth bass and bluegill are recommended as the best species for day leasing ponds. Catfish may also be stocked along with largemouth bass and bluegill but must be harvested and restocked on a regular

basis. The publication cited in the long-term leasing section provides detailed management recommendations that apply to day leasing ponds as well.

To attract the largest number of anglers, day-lease ponds should be visible from a major highway. Less visible ponds can also be suitable or even preferable for pond owners who prefer to restrict access to local anglers and selected others. Access to some day lease operations is controlled by using a pond that is in sight of an occupied home or business. Complete fencing is probably only justified for those operations that attract large numbers of anglers. Some operations require anglers to obtain a receipt before fishing while others trust their clients to deposit their fee in a locked box at the pond.

## Regulations and Other Concerns

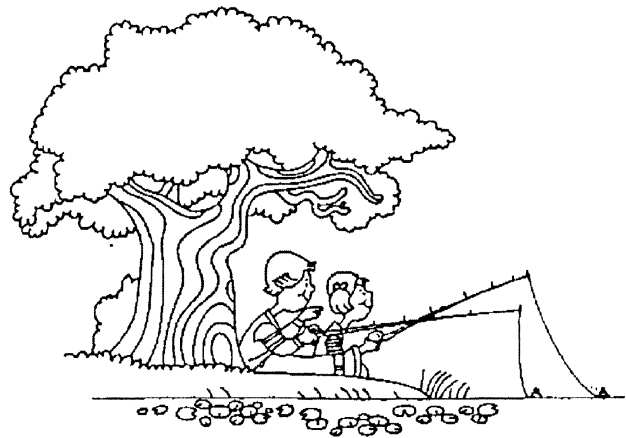
Regulations affecting fish-out and lease fishing operations are discussed in the OCES information sheet, "Permits and Regulations Affecting Oklahoma Fish Producers," available through your county Extension center. Operators are also urged to obtain liability insurance.

## Conclusions

The most important ingredients for a successful fee fishing operation are a good location, willingness to work with people, and the ability to provide good fishing. Your challenge is to identify the type of customer you can best serve, understand what good fishing means to them and then consistently provide it.

## Acknowledgements

Two publications by Billy Higginbotham, "Current Fee Fishing Trends and Techniques in Texas" and "Facility and Equipment Needs for Texas Fee Fishing Operations" in addition to "Fee Fishing as an Economic Alternative for Small Farms" by Charles Cichra and Lili Carpenter are the source of many of the recommendations in this fact sheet.



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