

Management
and
Care
of your
Fish Pond



Kurtz's
Fish Hatchery

(610) 286-9250

161 Isabella Road
Elverson, PA 19520



Dear Pond Owner:

When you build or purchase a new pond or lake, you are entering into a new venture that can bring you many hours of relaxation and pleasure for many years.

In this bulletin we wish to help you enjoy it more, by helping you to understand the management and care of it, so it will continue to be of use to you for many years to come.

The information in this bulletin might not answer your particular need, but may serve as a guide. If you have any problems concerning your pond, you may call on us and we will help in whatever way we can to help you develop your pond.

We, at our hatchery, are striving to maintain highest quality and true to species fishes to assure you of healthy and hardy fish to stock your lakes or streams.

You are invited to stop in and see our hatchery any weekday you can make it.

We are able to deliver substantial orders most anywhere, or you may pick them up at our hatchery yourself by giving us a few days notice. We can have your order ready when you arrive.

If our services please you, tell your friends. If they do not, please tell us so we can make improvements.

Material compiled by Mahlon Kurtz, founder.

KURTZ'S FISH HATCHERY

Richard Kurtz, Prop.

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CONSTRUCTION TIPS FOR YOUR POND

Proper construction can have a great deal to do with the success of your lake.

Suggestions

1. Don't build your pond across a stream. You want to be able to control the amount of water that flows through your pond, and be able to keep all wild fish from entering your pond.
2. Don't build ponds under $\frac{1}{4}$ acre in area as they are very hard to manage. Ponds $\frac{1}{4}$ acre and up are best suited to the raising of warm water fish.
3. Avoid too much shallow water. Try to have one third of your total area at least 8 to 10 ft. deep, the balance to 5 ft. deep, with steep sloping banks to avoid weed and algae problems later.
4. Don't build a pond without making provisions for draining. This feature can be of great value later for repairs and fish management.

MANAGING YOUR POND

After your pond is constructed, fill it to check for leaks, etc. After the water clears for a few weeks, you are ready to start preparing your water to produce food for fish.

STOCKING A NEW POND... Everyone wants to start fishing in a pond as soon as possible; however, in your haste to get fish large enough to catch don't make the mistake of incorrect stocking. Every fisherman friend will probably suggest that you stock his favorite fish and will even quote fish stories to prove his point. It will take only 3 or 4 years to show how wrong they were. So let's be sure we get the right species and size of fish to start. To insure getting good results from your pond you should stock it with fingerling-size fish (1 to 3 inches). The number stocked depends on the size of your pond. First, you will have to decide what you expect of your pond by answering the following questions.

- (a) Do you like and intend to remove fish to eat?
- (b) Do you want your pond to produce maximum pounds of fish for sport and food?

- (c) Are you only interested in occasionally catching a fish for sport and returning it to the pond?
- (d) Do you only want fish to control insect life, tadpoles and algae, etc. and do no fishing?

When you decide what you want from your pond, we will then have to decide what species will give you the desired results. Study the following types of fishes. This will help you decide.

LARGEMOUTH BASS is a predator fish and is one of the most widely used in farm ponds. It reproduces when it reaches 10 inches or half a pound in body weight. In Pennsylvania it normally takes two years. It feeds upon minnows, insects, frogs and any other live creature it can capture and swallow. Bass reproduce one time a year only, usually in the spring when the water warms up to 68 degrees. Bass can grow in a pond by themselves, but do better if stocked with a forage fish. Bass should be stocked at 100 per acre.

HYBRID STRIPED BASS is also a predator fish and also can be fed a commercial feed pellet. They will seldom reproduce since they are a cross breed of the Striper Bass and the White Bass. They can be stocked alone and fed regularly on pellets, or stocked with a forage fish such as Bluegills, Shiners or Fatheads. By stocking 8" and up they can also be put in ponds with large Bluegill populations, to help control them. The Hybrid is a very good eating and gamey fish that is easily caught.

BLUEGILLS are considered a forage fish, although large bluegills will feed heavily upon smaller fishes if available. They feed mostly upon plankton, insects and larvae. They can also be fed commercial feed. Bluegills are a very desirable game fish and will strike most any small lure, flies or live baits.

They are good eating and should be removed from ponds when caught. Since they are very reproductive, their numbers need to be controlled by predator fish and also by heavy fishing. Bluegills reproduce from June through August. Bluegills do not do well by themselves in a pond. You should stock them at 800 to 1,000 per acre.

CHANNEL CATFISH have moved ahead of all other game fish in the United States in the number and pounds produced. There are now one and a half times as many Channel Catfish produced as the next game fish, the trout. Channel Catfish are white fleshed and the most tasty of all warm water fishes.

The owners of farm ponds and small lakes must understand several fundamental facts about Channel Catfish in order to get the maximum production or pleasure from their investment. Catfish are excellent for use in small warm water ponds as well as in big lakes. They lend themselves to intensive culture when stocked alone, and do well in combination with Largemouth Bass and Bluegills. Channel Catfish must be a minimum of three years of age before they become sexually mature. If reproduction does occur, survival of the fry in the presence of Bass and Bluegills is very unlikely. In order to maintain a good catchable population, annual stocking of large fingerlings is recommended. Catfish can be added at any time to ponds without upsetting the balance, as they do not directly compete with other fish for food. They are bottom feeders and help to keep a pond clean and healthy. They also feed well on commercial feed.

Be sure not to confuse other types of catfish, (Bullheads, Yellow Cats, etc.) with the domesticated Channel Catfish as they will not do well in farm ponds.

Channel Catfish are stocked at the following rates; (1) stocked with other fish - 100 per acre; (2) stocked alone, on natural food - 150 per acre; (3) stocked alone and feed regularly - 2,000 per acre.

GOLDEN SHINERS are a large minnow that do well in pond environments. It is a forage fish and reproduces heavily, producing food for other game fish. It feeds upon plankton and algae. It reproduces at between 68 and 75 degrees in early and late summer.

Shiners can be stocked by themselves for the purpose of controlling insects. When large numbers are present in a pond it remains fairly free of algae. Because they grow 8 to 9 inches and usually maintain a breeding stock, they are good to stock with bass. Shiners should be stocked at 10 pounds adults per acre before bass are stocked.

FATHEAD MINNOWS are a very fast reproducing minnow and make a good forage minnow for all types of game fish. They reproduce all summer long and never get over about three inches in length. I recommend up to ten pounds per acre. They make a good pond starter.

CRAYFISH are a good addition to any pond, as they feed on weeds and algae. This will keep the pond cleaner, and will also supply more food for your bass and catfish.

TROUT normally do not do well in farm ponds. You might be able to maintain trout if you have a large flow of spring water and keep your pond very small to get proper turnover to keep your water temperature below 72 degrees at the surface during the months of June through August. If you think you have such a pond, it is wise to stock only a few and study the pond the first summer.

There is almost no limit to the kinds of fish that would survive in your pond. Many of them can be eliminated because they have poor food qualities; others are no fun to catch; and some, while they may seem right, simply cannot be managed successfully. Of all the fish that have been tried in ponds, the only ones that fit our needs are a combination of the fish we just described. They are both gamy and sporty on the right tackle, and they provide a table delicacy as well. These are the fish that give the most satisfaction to the most pond owners. They are the only ones we recommend for your pond since they have consistently given good results when properly managed.

The following are several combinations suggested to stock one acre. The figures have to be adjusted to your size pond.

- | | |
|-----------------------------------------------------------------|-----------------------------------------------------------------------------------|
| (a) 100 Bass
800 Bluegills
100 Channel Catfish | (e) 150 Channel Catfish |
| (b) 100 Bass
800 Bluegills | (f) 2,000 Channel Catfish
(if going to be fed regularly) |
| (c) 100 Bass
10 pounds Golden Shiners
100 Channel Catfish | (g) 100 Bass |
| (d) 100 Bass
10 pounds Golden Shiners | (h) 10 pounds Golden Shiners |
| | (i) 500 Hybrid Bass if going to
feed or 100 per acre with
10 pounds minnows |

FOOD CHAIN... The fact that we have selected two kinds of fish to stock our pond adds another link to our food chain. Nutrients already in the water stimulates plankton development. This in turn provides food for small fish and for the many insects and other pond creatures. Bluegills and shiners feed chiefly on the insects; and bass, being flesh eaters, feed primarily on the smaller bluegills or shiners. The catfish feed on plankton, algae and minnows. In this way, we get the most efficient use of all the food items in the pond.

STEPS IN CORRECT STOCKING... Bass fingerlings are available from July through September when they are 1 to 3 inches long. Bluegills may be stocked at the same time or later in the season . . . September to November. It is important that the bluegills are not put in the pond early in the summer, since we do not want them to reproduce during the same season they are stocked. Catfish fingerlings are usually available the same time as bass and bluegills, or early spring. Be sure of your original stocking: (1) stock the correct species, (2) use the approximate ratio of 8 bluegills to 1 bass, or 10 golden shiners to 1 bass, (3) stock fingerlings of each species during the same year, and (4) stock the bluegills late in the season.

PROBLEMS OF STOCKING... One of the most important causes of fish pond troubles comes from incorrect stocking. Unfortunately, if the wrong fish are established the pond must be drained to get rid of the fish and a fresh start must be made.

ADDING ADULT BLUEGILLS AND BASS... Let's look at a few problems which can arise. Take the case of a pond stocked with bass and bluegill fingerlings in the recommended way. In his anxiety to provide fishing immediately, the owner added about a dozen adult bluegills from a neighbor's pond. These bluegills began reproducing almost as soon as they hit the water. (A female bluegill may have as many as 5,000 eggs each time she spawns.) That pond was not stocked at the rate of 8 bluegills to 1 bass. The ratio was probably 100 or even 1,000 to 1 by the end of the first summer. There was little question why that pond was overpopulated with intermediate-sized bluegills.

Just about the same thing occurs when you stock bluegills caught from another pond and purchase fingerling bass. Reproduction from the adult bluegills will give you an unknown number of fingerlings, so your stocking rate is bound to be in error from the start. Your chances of getting a successful pond in this manner are slight.

Stocking a few adult bass can seriously upset the relationship between your original stocking of bass and bluegill fingerlings. Do not put any kind of fish in your pond except the original stocking.

It is practically impossible to stock your pond with adult fish, as fish of different weights will produce different amounts of eggs and there will be no way to determine a proper balance, and almost always in a few years will become very poor fishing.

If you wish to create immediate fishing the best way to go would be to stock some adult channel catfish and they would give you some fishing until the other species grow.

STOCKING AN OLD POND... Before adding any more fish to an old pond, it should be checked by us or any fish biologist to determine the condition of your pond.

POOR FISHING CAN BE CAUSED BY:

1. Ponds become contaminated with wrong species of fish.
2. Fish are stunted due to improper stocking, resulting in pond becoming overpopulated.
3. Pond wasn't fished hard enough and fish removed to eat.
4. Fishing only one species and leaving others in pond to overpopulate.

CORRECTIONS... Draining and starting over the same as a new pond is best where it can be done. If forage fish are found to be overpopulated, the overcrowded condition of the forage fish is essentially due to a lack of sufficient bass in the pond. The addition of more bass is a logical solution. In order to stock with sufficient numbers, it is necessary to use either fingerlings or yearling bass from our hatchery. To maintain the proper balance in a pond, the bass must eat not only the excess of small bluegills, but also their own young; leaving only the numbers which can make satisfactory growth on the available food.

THINGS TO REMEMBER

1. Good fishing starts with proper stocking of good quality fish from our hatchery.
2. Fish grow rapidly if they have plenty of food, but very slowly if food is scarce.
3. Too many fish in a pond cause small undersize fish and poor fishing.

4. Within two years after proper stocking, a pond is usually supporting close to the maximum weight of fish for which food is available.
5. If the number of fish in a pond is reduced, the average size of those remaining increase.
6. Bluegills cannot be raised successfully in ponds alone.
7. Largemouth bass should be used in ponds with bluegills or minnows.
8. After the second year, never return any bluegill caught while fishing to the pond. Throw them away if you don't want them.
9. After the second year, the harder you fish your pond, the larger fish you will have.
10. Don't try to remove only bass. For each pound of bass you remove take out four pounds of bluegills or one 12" bass and sixteen 6" to 7" bluegills.
11. We recommend returning all uninjured bass to the pond until they reach 14 inches and over, but strongly recommend the removal of all bass 15 inches and over. This will allow a larger survival of young bass to control the bluegills

FORMULA FOR GOOD FISHING

1. Proper pond construction.
2. Stocked properly with only fish recommended from our hatchery.
3. Hard fishing and keeping fish to eat.

We are in business to sell fish. We will sell you any number or size fish you wish to stock. You must know what you expect of your pond. We guarantee top quality fish. What they will do in your ponds depends on your management of it.

