Aquaculture

Aquaculture is the practice of growing fish or plants in water. Many people call it fish farming. Channel catfish is North America’s most common catfish species used in fish farming.

The Ponds

The most common type of pond in catfish production is an embankment or levee pond. Embankment ponds are built on flat land by removing soil from the area that will be the pond bottom and using that soil to form levees or embankments around the pond perimeter. The ponds are about four to six feet deep.

The Feed

Farm-raised catfish are trained to eat high-protein food pellets that float on top of the ponds, unlike wild catfish, which are bottom-feeders. Pellets are made of soybeans, corn, wheat, vitamins and minerals.

Eggs are collected from spawning containers and moved to a hatchery. Eggs hatch after five to eight days of incubation. Fry, meaning baby catfish, are then transferred to a nursery pond, fed daily throughout the summer and become fingerlings.

production Process

A typical production cycle for channel catfish farming begins with spawning of brood fish, which are mature fish used for the production of fertilized eggs. Spawning, which means hatching of fertilized eggs, occurs in the spring when water temperatures increase above 70 F.

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Fingerlings are then moved into foodfish growout ponds, fed daily and harvested when they reach one to two pounds. It takes 18 to 24 months to produce a food-sized channel catfish from an egg.

Foodfish are harvested year-round to meet the needs of processing plants, so ponds on a given farm usually contain fish at various stages and ages.

Did you know?

Alabama farmers currently produce more than 100 million pounds of catfish per year.

Alabama Ag Mag

Catfish

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Harvesting

Harvesting foodfish can be extremely challenging. The ponds have to be properly constructed and levees should be wide enough for large equipment. The basic equipment consists of a commercial harvest seine (large weighted nets), a hydraulic seine reel, a flat-bottomed aluminum boat, two tractors and hauling trucks.

Typically, harvesting a commercial pond requires at least five people. Two people are required to drive tractors, each pulling opposite ends of the hydraulic seine reel. Two more individuals are required to stand on the mudline at the base of the levee as the seine is pulled through the pond. The fifth person operates the boat and makes sure the seine is not catching too much mud.

Once both ends of the seine are pulled around the corners of the pond, the tractors park near the hauling truck where fish will be loaded. This makes it easier to move fish from the pond to the tanks on the truck.

Processing

Catfish are kept alive until the minute they are processed. The entire processing procedure is completed in less than 30 minutes. The fish are cleaned, processed and placed on ice or frozen to temperatures of 40 F below zero. Frozen farm-raised catfish are individually quick-frozen, a method which preserves the taste and quality of the fish.

Catfish is inspected by the U.S. Department of Agriculture’s Food Safety Inspection Service. Many organizations, companies and people want to be sure that the fish you eat is fresh and safe!

Catfish farming has become America’s largest aquaculture industry and a worldwide model of economical and sustainable aquaculture. At its peak, the catfish industry produced and processed more than 660 million pounds of catfish. What does 660 million pounds of catfish look like?

If you laid them end to end, they would form a chain circling the globe more than two and a half times!
Catfish Products

- **Whole Dressed** – Freshly processed whole catfish.
- **Steaks** – Cross-section cuts from larger dressed fish. Available fresh or frozen.
- **Fillets** – Boned sides of the fish, cut lengthwise away from the backbone. Available fresh or frozen.
- **Regular and shank fillets** – Regular fillets have the belly section attached, while shank fillets have the belly section removed, fresh or frozen.
- **Nuggets** – Boneless pieces cut from the belly section of the fillet. Available fresh or frozen.
- **Strips and fingers** – Smaller pieces of fish cut from fillets. Available fresh or frozen.

Cooking Catfish

Most people know about fried catfish, but it can also be baked, smoked or even poached! Here are some recipes to try out with your family.

**Catfish Fajitas**

**Ingredients**
- 2 pounds Alabama farm-raised catfish fillets
- 1 cup lime juice
- 2 tablespoons butter
- 1 large onion, sliced into rings
- 1 large bell pepper, cut into strips
- 2 cloves garlic, minced
- ½ teaspoon salt
- ¼ teaspoon coarse ground black pepper
- 8 corn or flour tortillas, warmed
- Salsa, sour cream, guacamole and lime wedges for serving

**Preparation**
1. Place fillets in a large plastic bag. Pour lime juice over fish and marinate in refrigerator for 1 hour, no longer as juice will begin to cook the fish.
2. Grill catfish 5 minutes on each side. Suggestion: A charcoal grill provides great flavor. Add wood chips, soaked in water for 1 hour, to the charcoal for a more intense smoked flavor.
3. In a large skillet, melt butter. Cook onion, bell pepper and garlic in butter until tender. Season with salt and pepper.

**Nutrition Facts**

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<th>Amount Per Serving</th>
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<tr>
<td>Magnesium 10%</td>
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*Percent Daily values are based on a 2,000 calorie diet. Your daily values may be higher or lower depending on your calorie needs.*
Brave Cat Sandwich

Ingredients
- Tartar sauce
- Sesame seed buns
- Fried or grilled Alabama catfish
- Lettuce leaves
- Sliced tomato
- Sliced red onion, optional

Preparation
1. Spread tartar sauce on buns. 2. Top with fish, lettuce, tomato and onion.

Cajun Catfish

Ingredients
- ½ cup fish breading
- 1 tablespoon Creole seasoning
- 1 ½ to 2 cups frying oil
- 4 Alabama farm-raised catfish fillets

Preparation
2. In a large skillet, heat oil over high heat. Fry catfish until golden brown, about 3 minutes per side. Place on paper towel to drain.
3. Serve immediately.

Sources:
www.UScatfish.com
http://fanewhorizons.org/farm-facts-about-catfish/
http://msucares.com/aquaculture/catfish/production.html
http://farmingfeedsalabama.com/
http://alfafarmers.org/programs/divisions/commodities/catfish/
http://www.encyclopediaofalabama.org/article/h-1409

Catfish Maze

Start

Finish

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