Dating back to the native Americans and the early European settlers, crawfish have been an inherent part of Louisiana culture. Abundant in the swamps and marshes across south Louisiana, crawfish were a favorite food of early residents. Centuries later, crawfish season in Louisiana is still exciting, with crawfish boils and patio parties a time-honored tradition.

Crawfish (or crayfish as commonly known in other areas of the United States and the world) are freshwater crustaceans. Louisiana has more than 30 different species of crawfish, but only two species are commercially important to the industry, the red swamp crawfish \textit{(Procambarus clarkii)} and the white river crawfish \textit{(Procambarus zonangulus)}.

A commercial fishery for wild crawfish developed in the 1940s in the Atchafalaya Basin. This vast swamp and other natural areas still produce large quantities of crawfish for sport and commercial fishing. Because of yearly fluctuations in water levels, the commercial harvest can be erratic and often falls short of supplying the increasing demand for crawfish.

The potential for farming crawfish first became evident when crawfish crops developed as incidental catch in impoundments created for other uses. Researchers at Louisiana State University in the 1960s began to cultivate crawfish in man-made ponds by using controlled water levels, forage management and water recirculation techniques.

During the next 35 years, crawfish farming developed into the largest freshwater crustacean aquaculture industry in the United States. Louisiana leads the nation, producing more than 90% of the domestic crop. More than 1,600 farmers produce crawfish in 111,000 acres of earthen ponds. More than 800 commercial fishermen harvest crawfish from natural wetlands, primarily the Atchafalaya Basin. The combined annual yield ranges from 75 million to 105 million pounds. The total economic impact on the Louisiana economy exceeds $120 million annually, and more than 7,000 people depend directly or indirectly on the crawfish industry.

Production from Atchafalaya Basin

Crawfish harvesting from natural areas is unique to Louisiana. It is woven throughout the culture of southern Louisiana. Many of today's fishermen are second or third generation. Some are full-time commercial fishermen who also harvest commercial finfish. Others are part-time...
fishermen who harvest crawfish during the late spring and early summer.

Annual wild catches range from 40 million to 70 million pounds. In some years wild harvest makes up as much as 65% of Louisiana's total production. Even in low wild production years, wild harvest still contributes as much as 35% of the state total.

Crawfish are harvested by means of a coated wire trap with funnels to allow crawfish to enter. Basin traps are usually two-funnel, pillow-shaped traps that can be completely submerged. Either fish or a manufactured bait attracts crawfish to the trap.

Boats used in the Basin range from traditional johnboats to longer, custom aluminum boats designed to travel through thick aquatic vegetation. Wild crawfish are usually sold to dockside brokers.

Pond Production

Crawfish raised in ponds supply the rest of the state's total harvest. Crawfish culture fits into farm management plans by using marginal agricultural lands, permanent on-farm labor and farm equipment during off-peak farming periods. Many farmers grow crawfish in rotation with rice. Pond yields have increased from a low of 200 pounds per acre to present averages of more than 700 pounds per acre. Intensively managed ponds often produce in excess of 1,000 pounds per acre.

Crawfish ponds are generally constructed on open, flat land that has a heavy clay base. Individual ponds may range from 1 acre to 100 acres. The typical commercial pond averages 25 to 40 acres. An exterior levee is constructed to hold a maximum of 24 inches of water.

Methods used to grow crawfish differ from the culture methods of other aquatic species. Crawfish ponds are not stocked with hatchery-reared juveniles. The next year's production depends on reproduction by the unharvested crawfish from the previous year.

Natural vegetation cannot provide the amount of food necessary for intense crawfish production, so farmers must plant a food source. Rice is generally recommended because of its ability to grow in water and its low impact on water quality. Sorghum sudan-grass is an acceptable alternative if a rice crop cannot be planted.

Surface water from bayous and streams can be used, but water pumped from a deep well is more dependable. A pump with 75 to 100 gallons of water per acre per minute is needed to grow crawfish successfully.

Crawfish ponds are usually flooded in late September or early October. After water is on a pond for about 24 hours, crawfish begin emerging from their burrows. A mature female crawfish usually exits the burrow with newly hatched crawfish attached to the underside of its tail. Newly hatched crawfish can grow to marketable size in 90 to 120 days under proper conditions.

Harvesting crawfish from ponds is very labor intensive and costly. The most efficient
trap design for ponds is the pyramid trap which catches 20%-25% more crawfish than other designs. Most commercial crawfish ponds are harvested by either walking a pond or using specialized aluminum boats. A crawfish “combine” is equipped with a hydraulic wheel powered by a small gasoline engine that pulls or pushes the boat through the pond.

**Availability**

Live crawfish and fresh tailmeat are usually available from December until July. Crawfish are most plentiful in March, April and May. Although fresh crawfish and crawfish tailmeat are seasonal, frozen crawfish tailmeat and frozen whole crawfish are available all year.

The price of whole crawfish and tailmeat varies greatly throughout the year. In a normal year, the highest prices are paid early in the season. A drop in price usually occurs as the season progresses and volume increases. Early in the season, many of the choice crawfish are moved directly to seafood retail outlets for sale as live crawfish by the sack or as whole boiled crawfish. As the season progresses and prices to fishermen fall, a larger percentage of the crawfish are peeled for meat.

**Selection**

Live crawfish are usually purchased in mesh sacks which hold 35 to 40 pounds. Keep them alive and cool from the time they are purchased or caught until they are prepared. Keep them moist, avoid excessive drafts or direct sunlight and protect them from being crushed. Before boiling, wash crawfish several times in cool water. Discard dead crawfish and debris.

Crawfish tailmeat may be purchased fresh or frozen in 12- or 16-ounce vacuum sealed bags. When properly prepared, packaged and frozen, crawfish tailmeat should maintain high quality for about nine months.

**Nutrition**

Crawfish are an excellent source of protein. Fat content of washed tailmeat is low, only about 1%. Crawfish muscle fibers are shorter than the muscle fibers in red meats and are, consequently, more easily digested. There are no bones to contend with. Crawfish meat is versatile. Its delicate, unique taste comes through, whether the meat is eaten alone or cooked in traditional dishes such as crawfish stew, bisque or etouffee.

Whatever their source, the Atchafalaya Basin or a farmer’s pond, Louisiana crawfish are a favorite of seafood lovers. Louisiana’s crawfish have been introduced throughout the United States and overseas. Louisiana exports some 4 million to 5 million pounds to Sweden each year. Wherever introduced, crawfish have been accepted. In fact, Louisiana’s crawfish are known to be “heads and tails above the rest.”

**Nutritional Value**

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