

Catfish Used in U.S. Commercial Production

Channel Catfish (*Ictalurus punctatus*) are the principal fish used in the U.S. commercial catfish industry. Females reliably spawn after three to four years (4 to 8 lbs.) of age. Male fish grow larger and faster than females early in life. Channel catfish adapt readily to culture conditions in shallow ponds. Genetic strains of catfish have been identified from various river drainages throughout their native range in the central and eastern U.S. Fish have been selectively bred within a genetic strain, or crossbred with other strains of channel catfish for desirable production characteristics such as: rapid growth, disease resistance, improved feed conversion, fingerling survival, reproductive success, processing yield, and ease of harvest by seining. Channel catfish strains include: Harvest Select (formally Gold Kist), NWAC 103, Kansas, Rio Grande, Auburn, and Norris. PAAC has grown and sold the Harvest Select strain of channel catfish.

Blue Catfish (*Ictalurus furcatus*) are used infrequently in commercial catfish production since females mature at a large size (20 to 60 lbs). Blue catfish fry are susceptible to infectious diseases, handling injuries and grow slower to a weight of 1 lb than channel catfish. Blue catfish have a better dress-out percentage (60-62%) than channel catfish (58-60%) and are easier to harvest by seining.

The hybrid catfish, which consists of a channel catfish (female) x blue catfish (male) is the only commercially valuable hybrid developed from approximately 30 hybrids of North American catfish species. The hybrid catfish grows faster, is more disease resistant, is easier to harvest, is more uniform in size, and tolerates low dissolved oxygen conditions better than the parent species. These fish will not hybridize naturally and must be bred artificially in hatcheries. Unfortunately, enough fingerlings cannot be produced to supply the commercial catfish industry at this time. Research is currently underway in an effort to make hybrid catfish fingerlings available to the industry.

Remember, a crossbred channel catfish is created by interbreeding two or more different parent strains within a species. A hybrid catfish is derived from breeding two different fish species. In Kentucky, many people refer to a catfish as a “blue-channel catfish,” however, this fish does not exist!

Forrest Wynne
State Specialist for Aquaculture