

# **CHANNEL CATFISH CULTURE**

**IN THE**

**UNITED STATES**

**BY**

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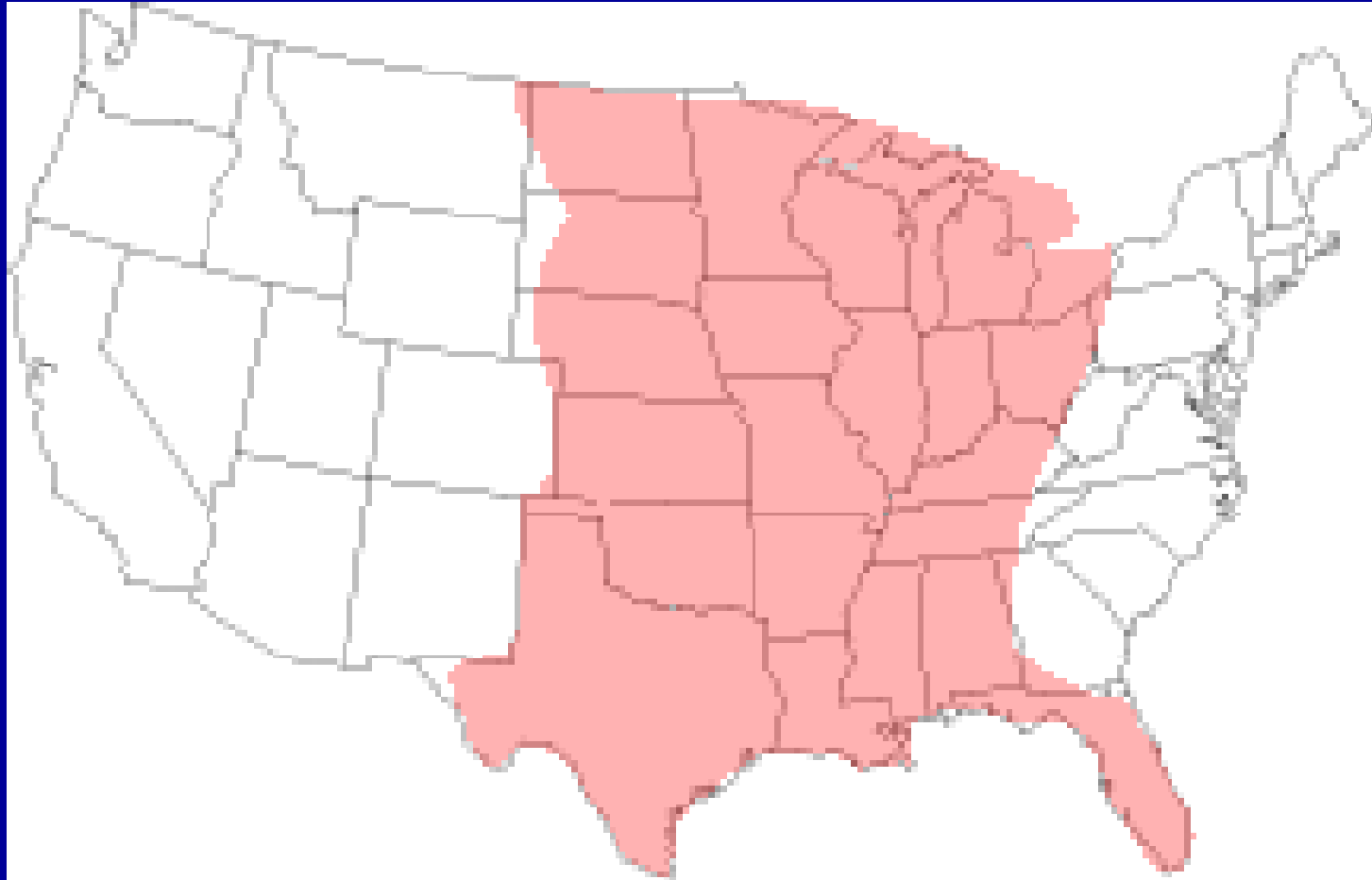
**Auburn University, AL 36849**



# Channel Catfish ( Ictalurus punctatus )



# Native Range Of Channel Catfish In The United States



# Food Habits



**omnivorous**

# Preferred Habitat



**Rivers**



**Reservoirs and lakes**

# Reproductive Life History

- 1. Sexual maturity is reached in 2 to 3 years in the southeastern U. S.**
- 2. Spawning takes place in a cavity formed by rocks, logs or a hole in a lake or river bank.**
- 3. Preferred spawning water temperatures: 70 to 84 F, with optimal temperature 75 to 79 F.**

# Sexual behavior

1. Males defend a territory/cavity.
2. Female enters the cavity and spawns.
3. Males incubate eggs and defend fry.
4. Males can spawn with more than one female a season.





**Catfish are grown in 5 to 25 acre earthen ponds with flat bottoms and drain pipes.**

# Catfish ponds are filled with either:



**Filtered surface  
water or rainfall**



**Well water**



# Spawning in captivity:

Stock adults 3 to 8 years old

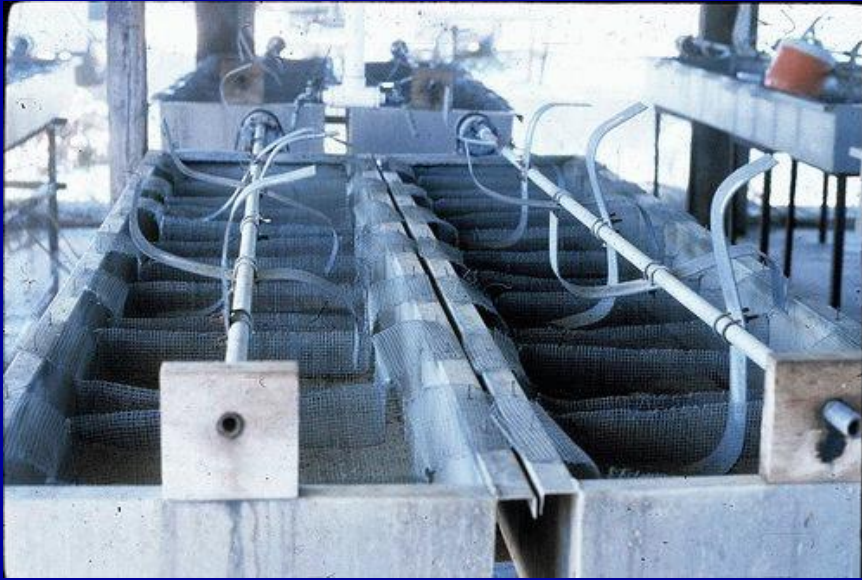


# Spawning Containers



**Spawning occurs during May and June in the Southeastern U. S. Spawning cans are checked every 2 to 3 days for spawns.**





**Eggs are placed in 5-mm square wire mesh baskets suspended in a paddlewheel incubator.**

**Eggs hatch in 5 to 6 days at water temperatures of 75 to 80 F.**





**Fry ( small catfish ) are stocked into ponds and cultured to fingerlings in 6 to 8 months. Fingerlings are stocked into fattening ponds during January to March for growth to market size**

**Floating pellets are distributed by a feed blower mounted on a truck.**



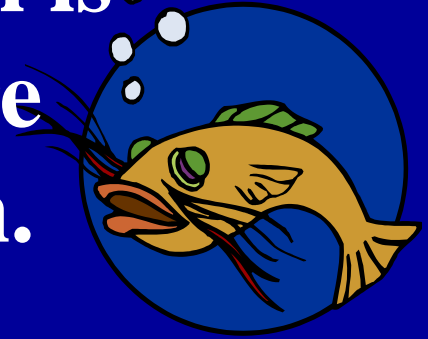
**corn wheat soybean**



# Catfish are fed what they will eat



**Dissolved oxygen concentration is checked night and day to assure that levels remain above 2 ppm.**



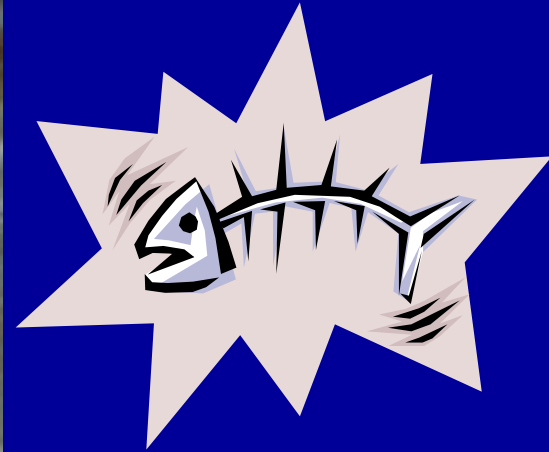
**Electric ( fixed ) and tractor ( mobile )  
powered paddlewheels are used to increase  
Dissolved oxygen levels.**



**No water exchange is practiced because ponds are  
large and pumping water is costly.**

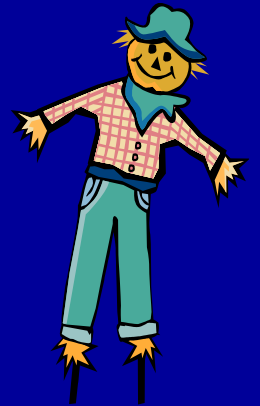
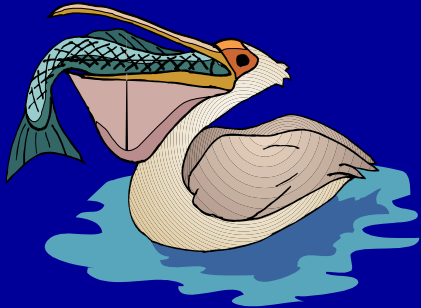
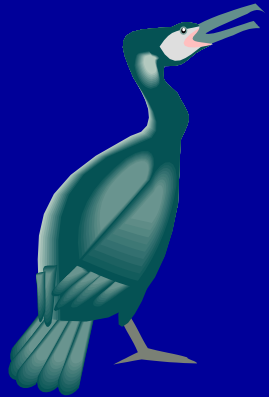
**Low Dissolved oxygen can kill catfish within  
1 or 2 hours.**





**Many diseases cause fish mortality.**

# Birds consume many fish in some regions.



Gas cannon to scare the birds





**Catfish are grown 12 to 18 months in fattening ponds before reaching a harvest size of 1.5 to 2.5 lbs. Catfish are removed from the pond with a seine stored on a hydraulic reel powered by a tractor.**



**Catfish are retained in a holding net overnight to eliminate small catfish. Fish are crowded for loading onto the transport truck.**

**Catfish are weighed onto trucks taking the fish to the processing factory.**



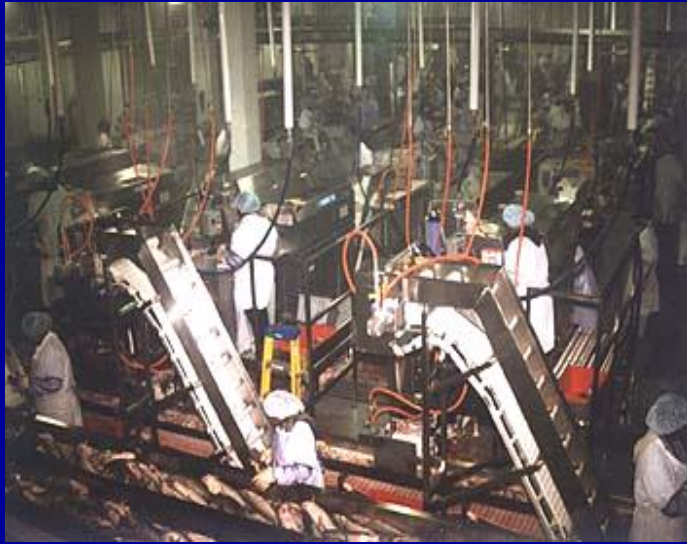
**Fish are checked for off-flavor 2 weeks, 1 day and upon arrival at the processor. Off-flavor fish are not harvested.**



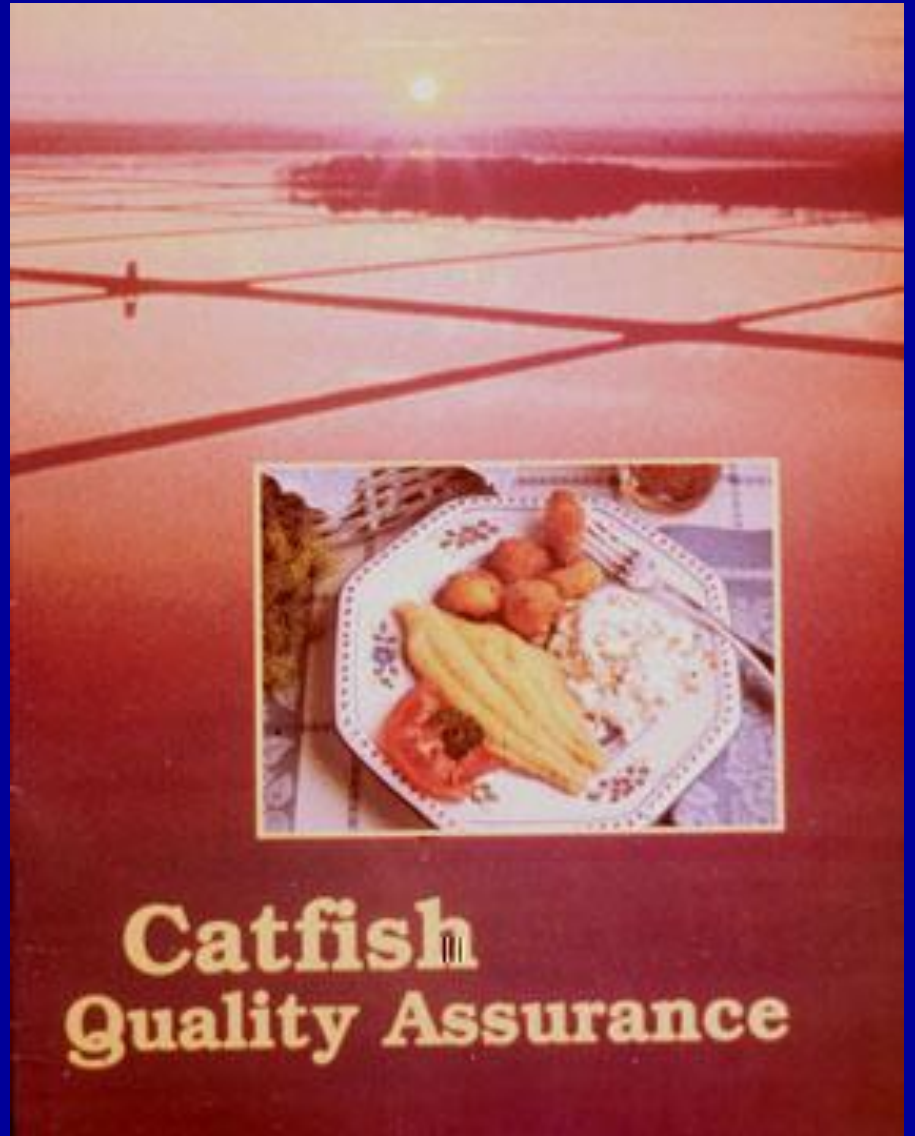
**Catfish are weighed a second time upon arrival at the processor. Fish arrive alive.**



**Catfish are cleaned, filleted and frozen by the processor.**



**The catfish industry maintains a quality control program to insure the consumer a fresh and healthy product.**



**Catfish  
Quality Assurance**

**Principle farming states are located in the Southeastern U. S.. Mississippi ( MS ) Alabama ( AL ) and Arkansas ( AR ) produced 93 % of the farmed catfish in 2010.**



**Mississippi accounts for 54% of farmed catfish**

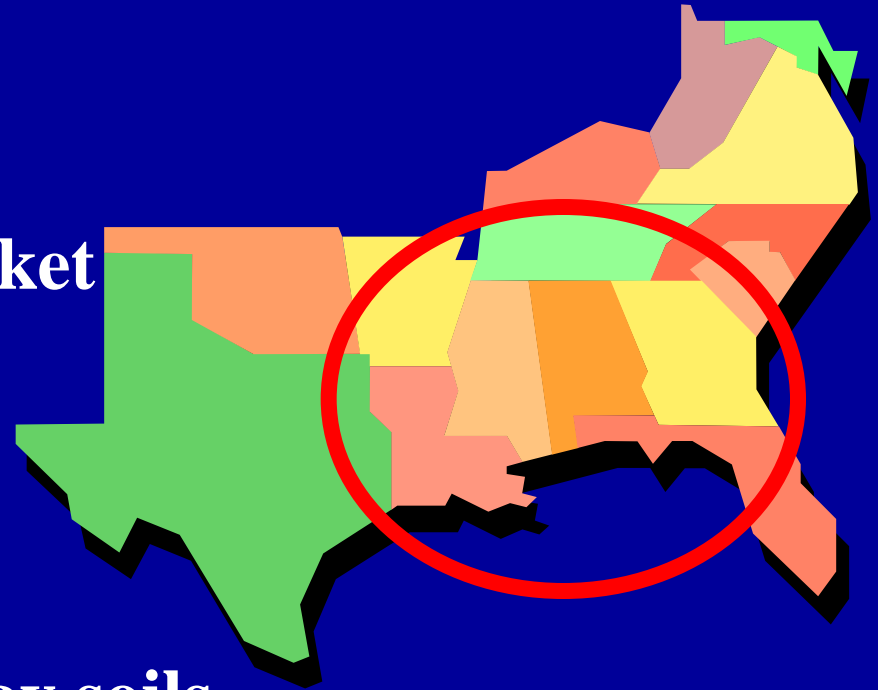
# The channel catfish industry developed in the Southeast because:

1. Popular food fish - market

2. Warm climate

3. Abundant water and clay soils

4. Close to major grain farming regions - cheap fish feeds



# Channel Catfish Live Weight Processed and Average Price per Pound, 2010

YEAR	LIVE WEIGHT PROCESSED, lb		AVG. PRICE* PER lb, \$US.
----- 2010	----- 479,000,000		----- 80.2 cents

\* Price to farmer for fish delivered to the processing plant

# U.S. Per-Capita Consumption in 2010 By Species in Pounds

	<u>Species</u>	<u>Lbs.</u>
1	<b>Shrimp</b>	<b>4.0</b>
2	<b>Canned Tuna</b>	<b>2.7</b>
3	<b>Salmon</b>	<b>1.999</b>
4	<b>Tilapia</b>	<b>1.450</b>
5	<b>Pollock</b>	<b>1.192</b>
6	<b>Catfish</b>	<b>0.800</b>
7	<b>Crab</b>	<b>0.573</b>
8	<b>Cod</b>	<b>0.463</b>
9	<b>Pangasius</b>	<b>0.405</b>
10	<b>Clams</b>	<b>0.341</b>
	<b>Total All Species</b>	<b>15.8</b>



**EAT MORE  
CATFISH**



*The  
End*