

# Foodfish Production Characteristics of Largemouth Bass *Micropterus salmoides* Stocked at Three Densities



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# Why Largemouth Bass?

- Risk
- Imports
- Markets



Is there another freshwater fish that can be raised in ponds in Arkansas that can be developed into a large-scale fillet product?

# UAPB Focus Groups



**Showed interest on part of fish and seafood consumers in Arkansas to purchase LMB fillets.**



**International buyers have expressed interest in imports of LMB fillets.**

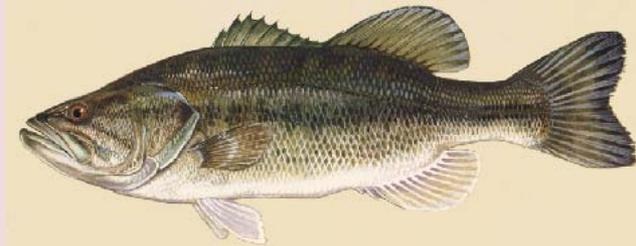
# Previous Work at Kentucky State University showed:

- Improved growth of LMB as densities increased up to 12,500/ha.
- Dressout yields of LMB for fillet product similar to those for catfish.



# Other Work

- LMB in wild have grown to 0.9 kg in one year, with adequate forage fish.
- Some studies reported difficulty in grow LMB to sizes above 0.45 kg.
- High feed prices strong disadvantage.
- LMB fillet price points unknown.



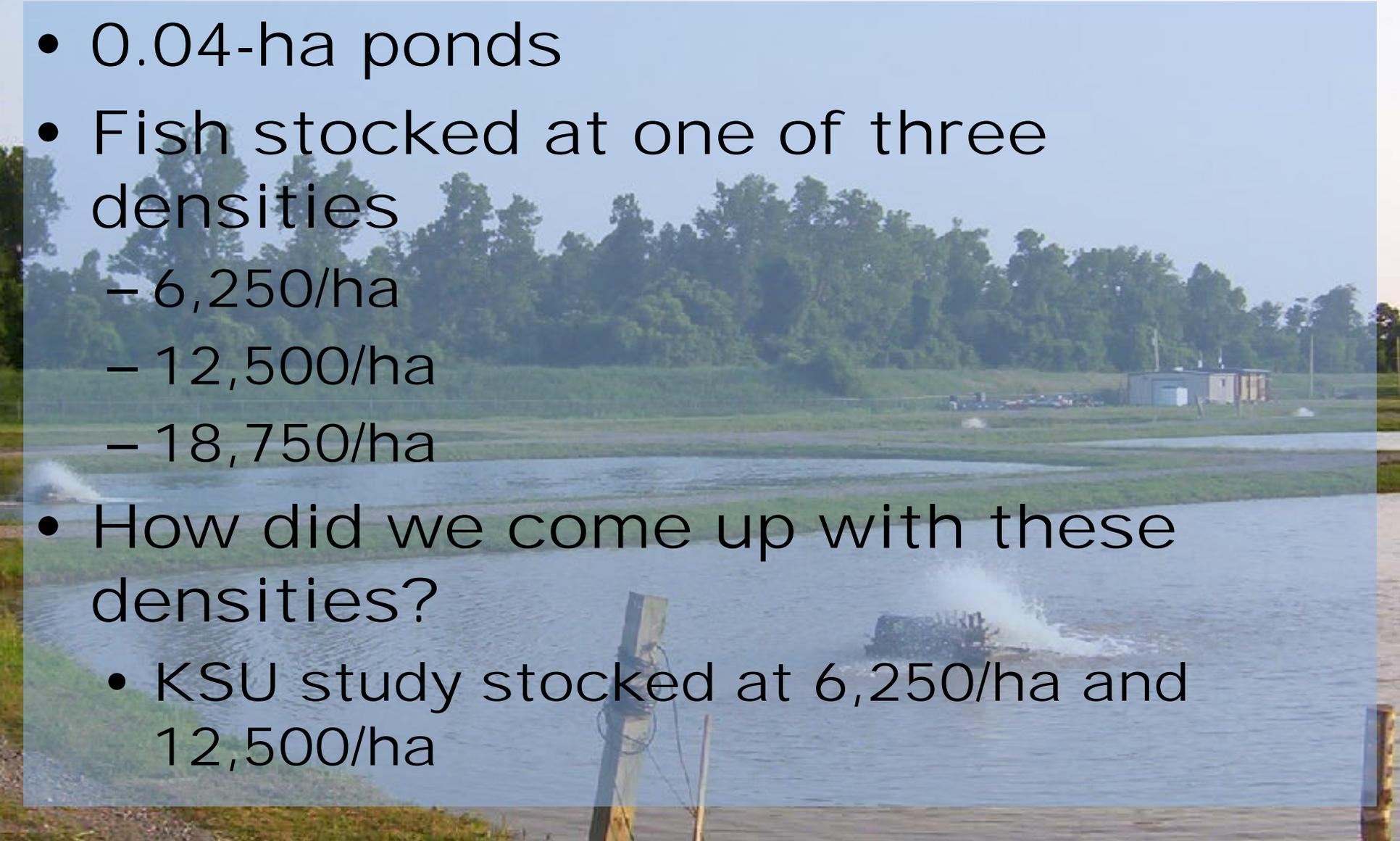
# Ongoing Pond Study



**Objective is to compare growth, yield, feed conversion ratios, and costs of producing largemouth bass for foodfish at three densities in earthen ponds.**

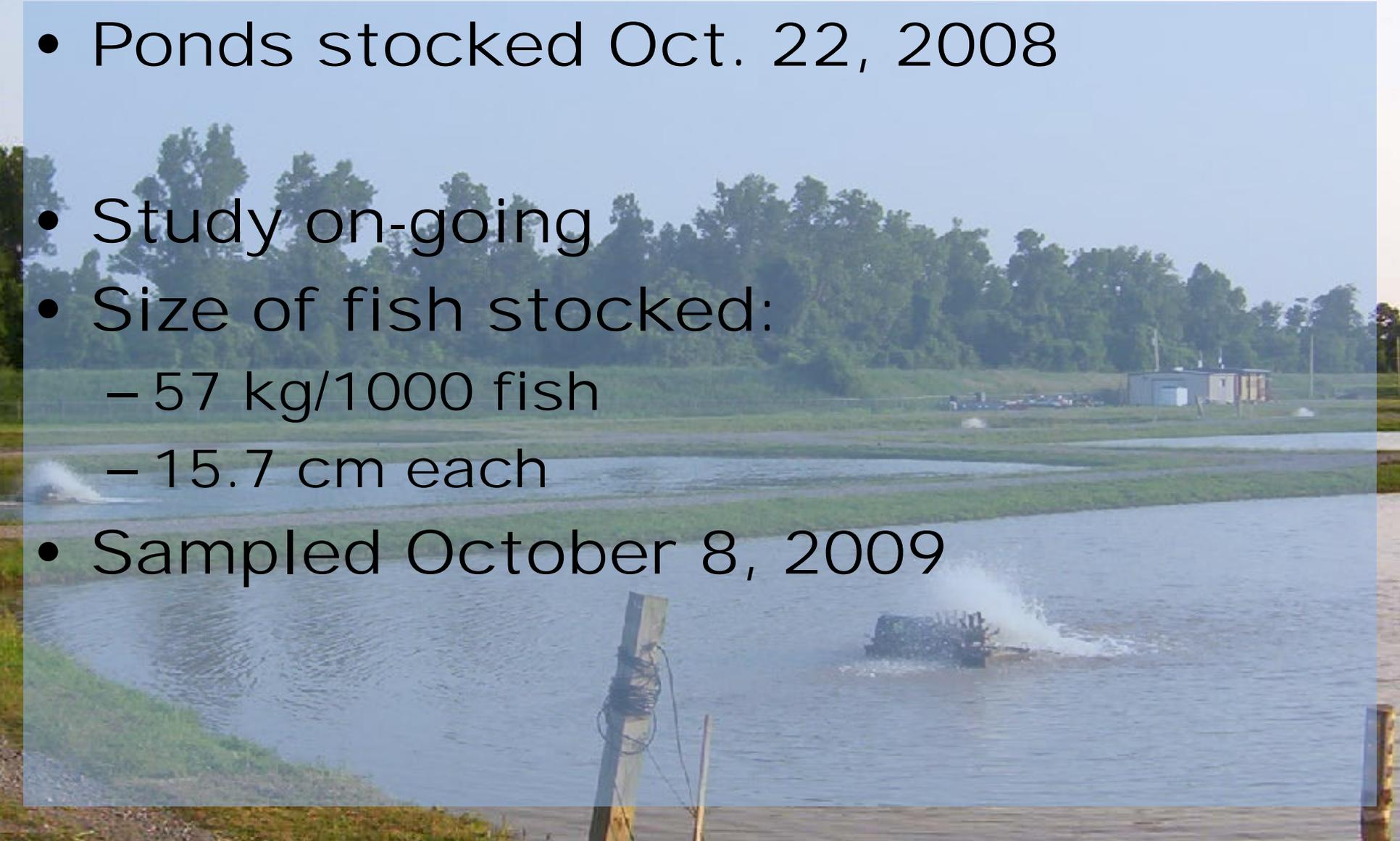
# Study Design

- 0.04-ha ponds
- Fish stocked at one of three densities
  - 6,250/ha
  - 12,500/ha
  - 18,750/ha
- How did we come up with these densities?
  - KSU study stocked at 6,250/ha and 12,500/ha



# Study Design (cont.)

- Ponds stocked Oct. 22, 2008
- Study on-going
- Size of fish stocked:
  - 57 kg/1000 fish
  - 15.7 cm each
- Sampled October 8, 2009



# Average Fish Weight at Sampling



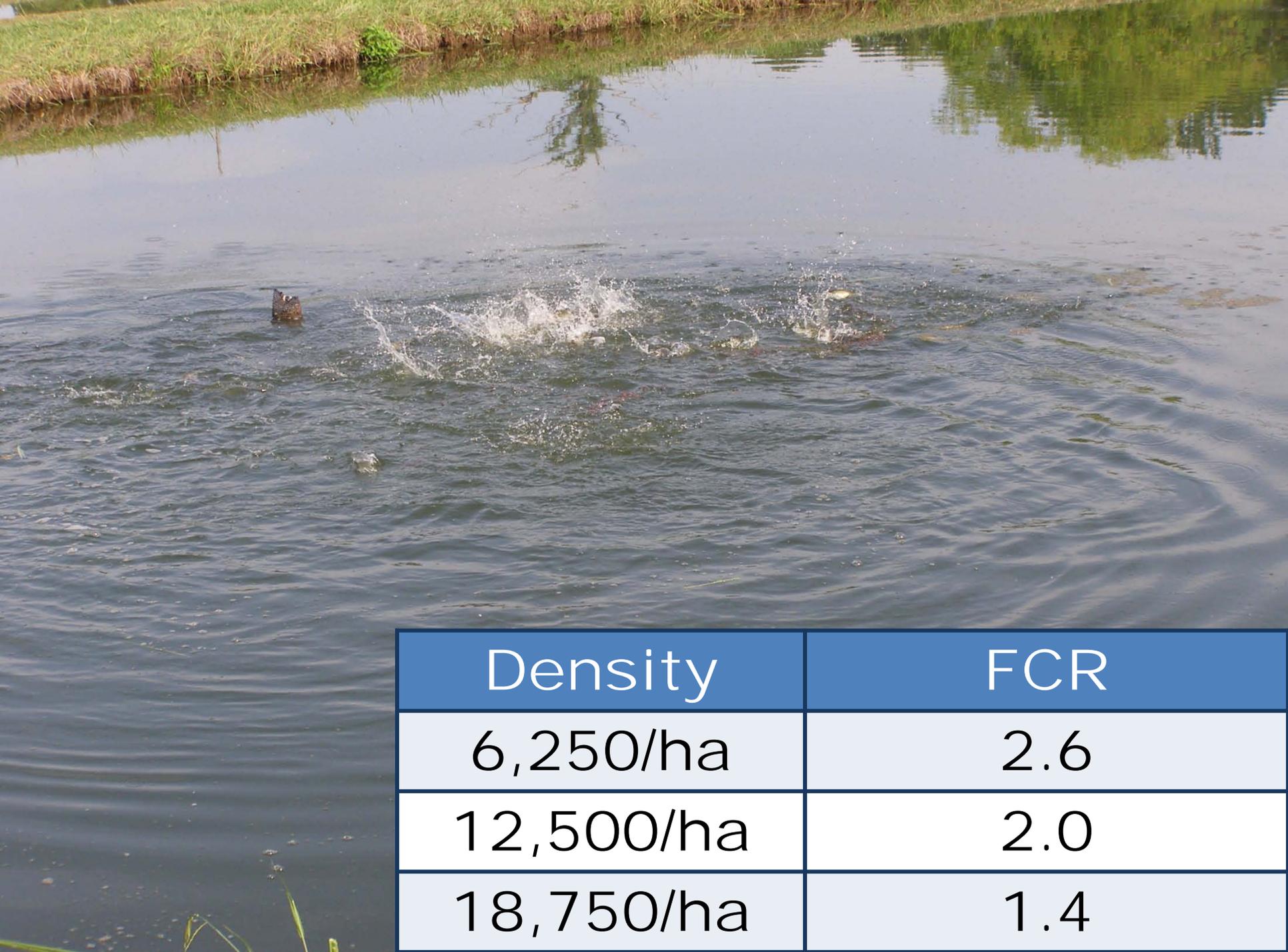
Density	Mean Weight (kg)
6,250/ha	$0.51 \pm 0.027$
12,500/ha	$0.48 \pm 0.032$
18,750/ha	$0.43 \pm 0.036$

# Minimum Survival at Sampling

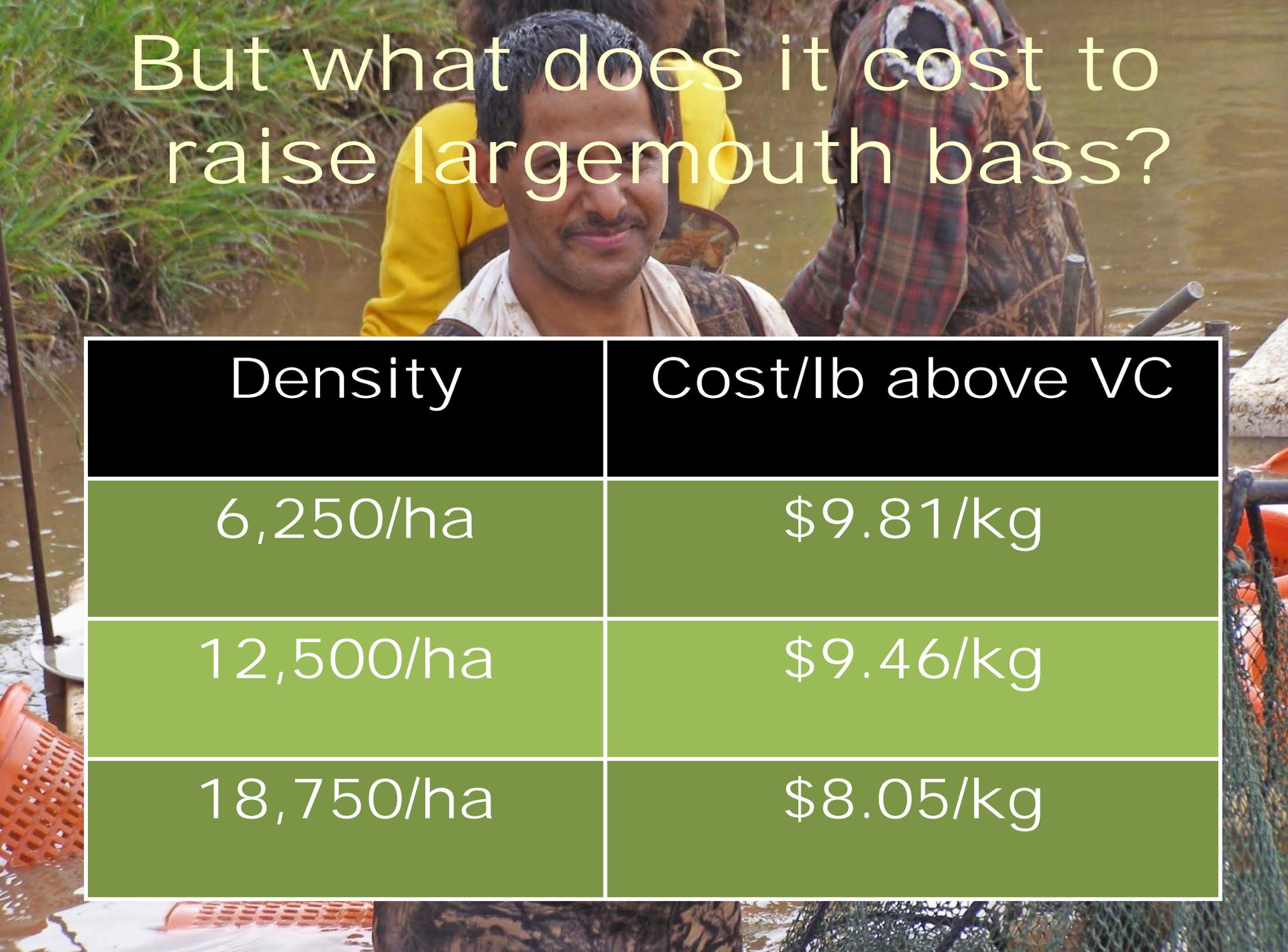
Density	Survival (%)
6,250/ha	65 $\pm$ 17
12,500/ha	60 $\pm$ 13
18,750/ha	74 $\pm$ 49

# Estimated Biomass at Sampling

Density	Biomass (kg/ha)
6,250/ha	2,114 $\pm$ 580
12,500/ha	3,602 $\pm$ 761
18,750/ha	5,841 $\pm$ 557



Density	FCR
6,250/ha	2.6
12,500/ha	2.0
18,750/ha	1.4



But what does it cost to raise largemouth bass?

Density	Cost/lb above VC
6,250/ha	\$9.81/kg
12,500/ha	\$9.46/kg
18,750/ha	\$8.05/kg

# Breakeven Price Above Total Cost?

Density	Cost/lb above base budgets
6,250/ha	\$10.58/kg
12,500/ha	\$9.90/kg
18,750/ha	\$8.34/kg

Is it possible to develop  
large-scale industrial  
production of largemouth  
bass?



# QUESTIONS?

