

# Feed Training Yellow Perch Fingerlings



---

The Millcreek Perch Farm, LLC

Strategy

Marysville, Ohio

---

# Our Ponds

- 
- ✦ A relatively small operation, large by Ohio standards.
  - ✦ Four 1-acre, two ½ acre drainable levee ponds.
    - ◆ 8 foot maximum depth
    - ◆ Drainable is key to fry production
  - ✦ Water source is a well.



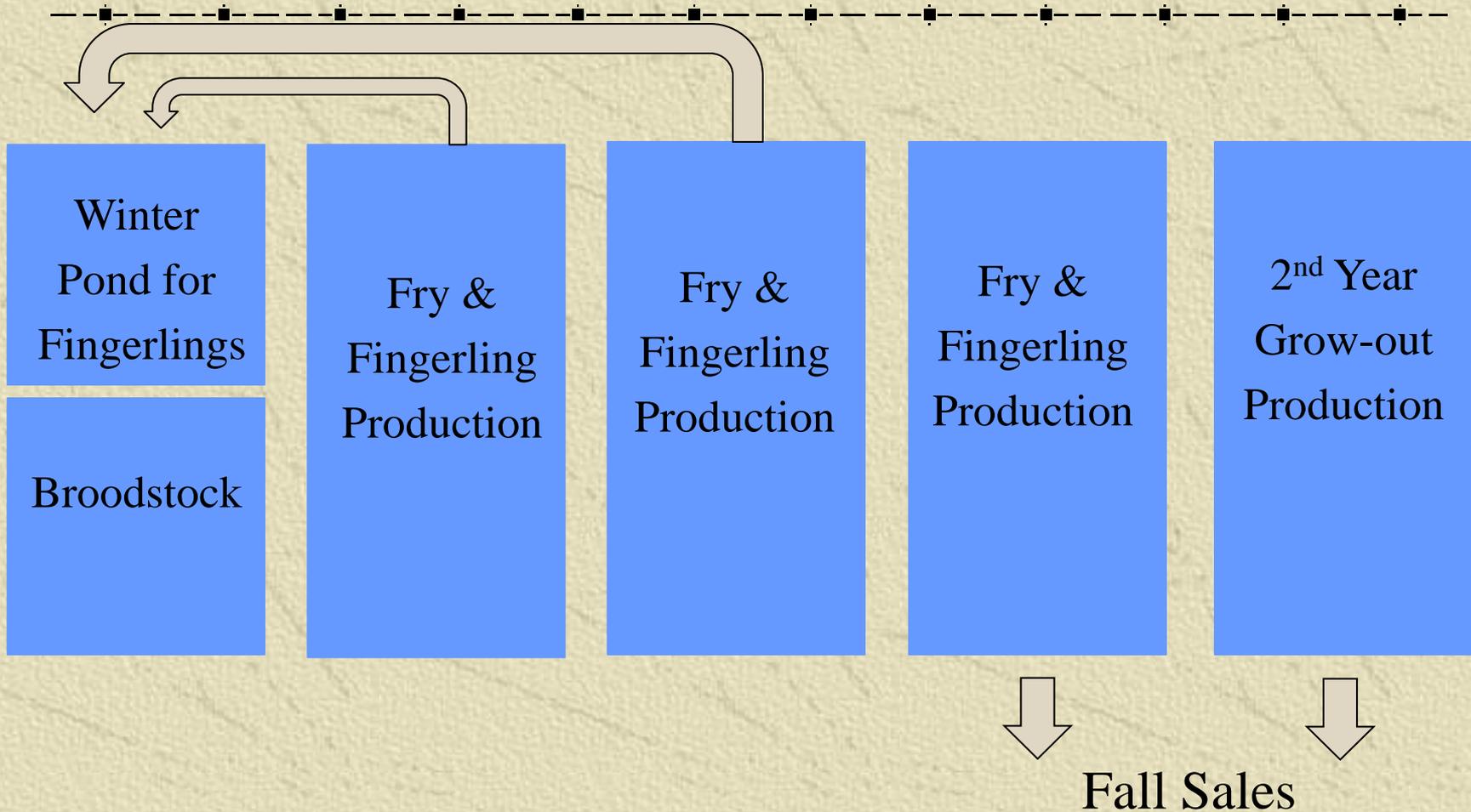
# Our Building



- 
- ✦ 30 by 40 foot pole barn, concrete floor.
  - ✦ Contains four, 1000 gallon tanks and six, 600 gallon tanks.
  - ✦ Large tanks can receive both well and pond water, smaller tanks pond water only.
  - ✦ All tanks equipped with air via blower and airstones.



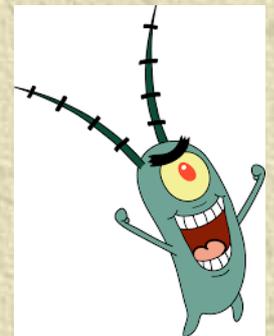
# Pond Layout



# Pond Fry Production

---

- ✦ Fry ponds sit dry during winter to kill algae, aquatic insects, and unwanted tadpoles and missed fish.
- ✦ Ponds filled 2-3 weeks prior to hatching
- ✦ Ponds are fertilized weekly with phosphoric acid and nitrogen to increase plankton.
- ✦ Fry stocked into ponds at a rate of 175,000 – 200,000 per acre.
- ✦ Fry remain in ponds 5-6 weeks.
- ✦ Harvest is at  $\frac{3}{4}$  - 1 inch.



# Fry Harvest

- 
- ✦ Harvest very carefully with 150 foot long, 8 foot tall seine with 1/8 inch mesh.
  - ✦ Do not count fish prior to stocking into tanks. Too high stress. Rather, subsample to determine how many fry per pound.
  - ✦ For transport to feed training tanks, no more than two pounds of fry per five gallon bucket.
  - ✦ Make numerous trips to building rather than trying to get them all in one trip.

# Indoor Feed Training I



- ✦ Feed training typically begins about May 15.
- ✦ 24 hour low light conditions with lights just above tanks.
- ✦ Maintain temperatures between 68 F and 76 F.
- ✦ 25 fry per gallon.
- ✦ Low flow rates initially, increase the rates as they grow and consume more feed. Oxygen levels, nitrite, and ammonia all indicators of when to increase flow rates.





NSF-DWQ DMU JM90 000CZ1 10.2 MEA

AMERICAN



# Indoor Feed Training II

---

- ✦ Mix krill powder / artificial meal for 5-7 days, then all meal thereafter.
- ✦ Start feeding at 25% of total fry weight per tank per day, 20% by day 21.
- ✦ One or two 24-hr belt feeders per tank for continuous feeding. Hand feeding occurs 6-8 times daily.
- ✦ Feed training lasts 17-21 days.



# Daily Chores

---

- ✦ Siphon tanks daily to remove feces and uneaten food.
- ✦ Estimate mortality.
- ✦ Load 24 hr. belt feeders.
- ✦ Monitor water quality:
  - ◆ Temperature and oxygen
  - ◆ Ammonia



# Are They Feed Trained?

---

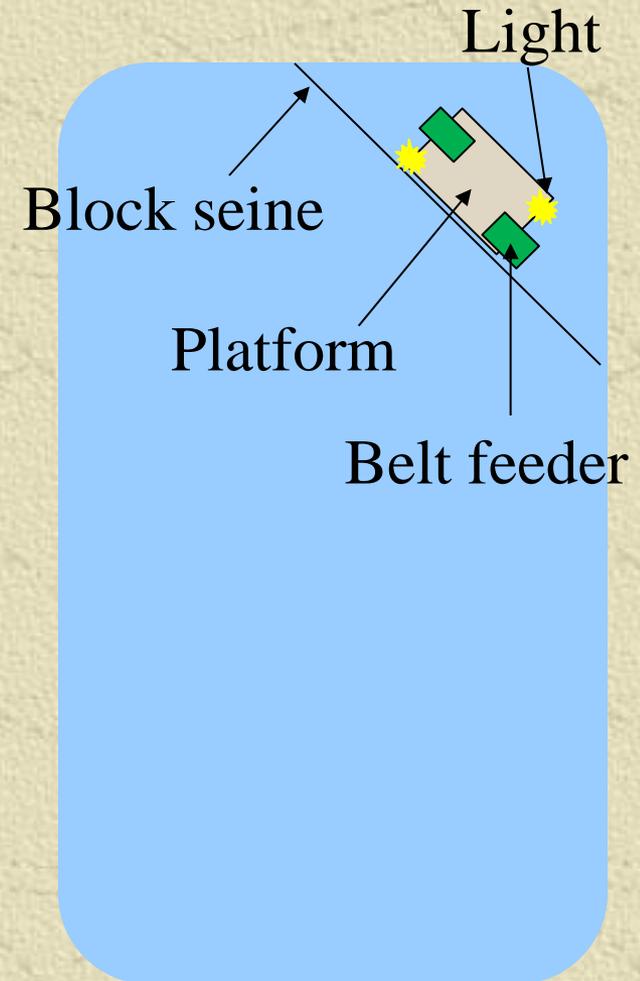


**Yes!**

# First Year Production

---

- ✦ 40,000 1-1.25 inch feed trained fingerlings per acre.
- ✦ Stocked behind 1/8 inch block seine for one week.
- ✦ Two 24-hr belt feeders on lighted, small platform for continuous feeding.
- ✦ Platform, lights, & belt feeders in place for 2 weeks



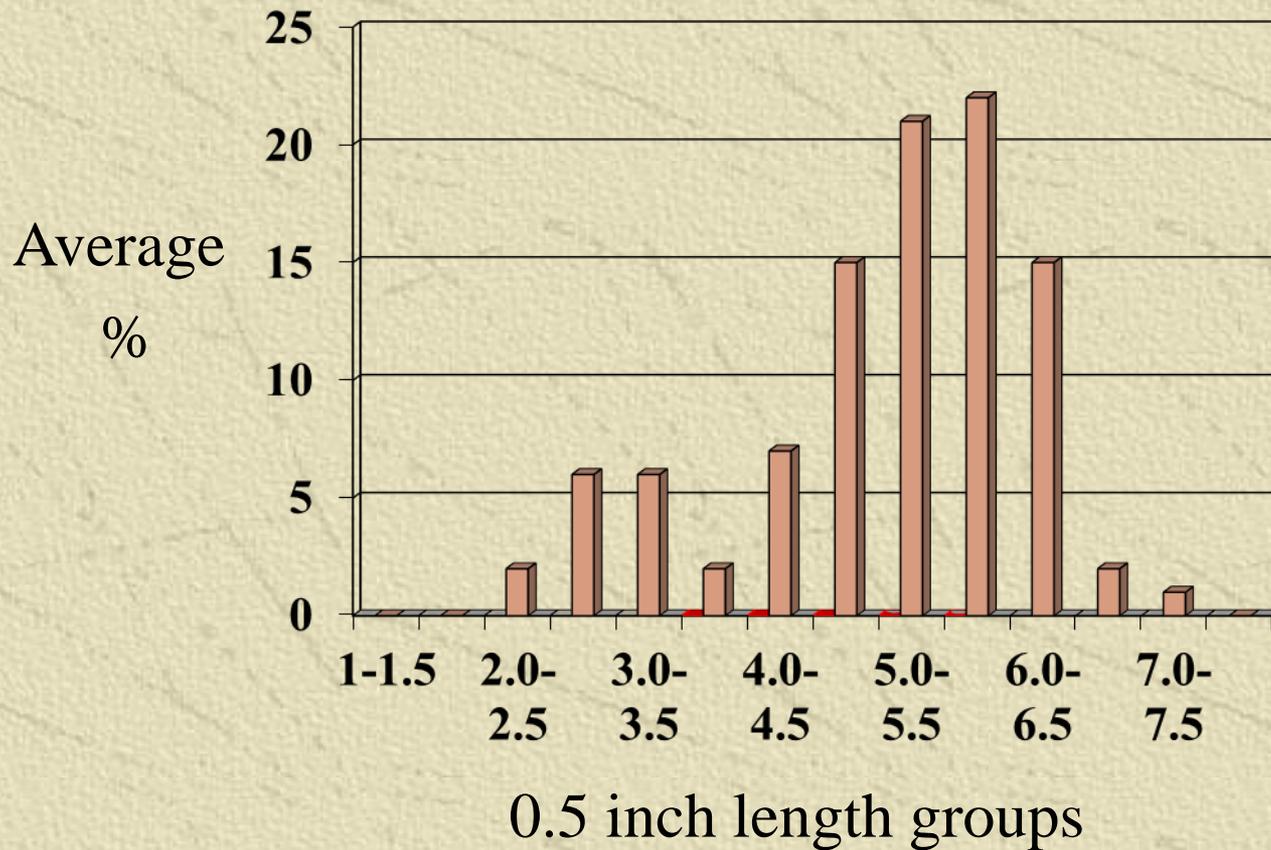


# 1<sup>st</sup> Year Feeding

---

- ✦ Start feeding at 15% stocking weight of fingerlings.
- ✦ ½ in belt feeders, ½ hand feeding.
- ✦ Over first two weeks, less and less in belt feeders and more hand feeding.
- ✦ Beginning of third week, commence satiation feeding at dawn and dusk.
- ✦ There are non-satiation pond feeding strategies, but none readily work well. % biomass feeding need good mortality estimates.

# Typical First Year Length Frequency



# Questions?

---

