ARIZONA TROUT IN THE CLASSROOM

"Guidelines When To Feed The Fish"

Day 1: Eggs arrive and are placed in an unmodified fine mesh cloth net breeder basket. The tank size is 55 gallons with a temperature range of 50 - 53 degrees Fahrenheit.

Day 5-7: Eggs begin to hatch and finish hatching in about 48 hours.

Day 7-21: Swim-up starts two (2) weeks after hatching; 50% swim-up at 48 hrs (day 23) and 80 - 90% swim-up (day 24). Remove the tank cover to allow light to encourage swim-up.

Day 25: The morning after swim-up "completes" take the smallest amount of size #0 trout food, crush it between your fingers and drop it in the breeder basket. A suggestion is to use the wide end of a flat wooden toothpick as a measuring spoon and just use about the amount of food that covers about 1/16 of an inch of the end of the toothpick. Stir the floating food with the end of the toothpick to sink some of the food to the bottom of the basket. Approximately 10% of the Alevin may feed. Expect a poor feeding response because the fish still have yolk reserves from the egg sac even though it is "buttoned -up" in their abdomen and no longer visible. DO NOT overfeed your fish. Their gut is not fully developed and too much food can kill them.

Day 26-28: The fry may be photo-phobic. Observe them with overhead lighting turned off. You may need to feed them with the overhead lights off and just the ambient light from the windows lighting the tank in the morning. After about 4 - 5 days the photo phobia will subside and the fry will swim up for the food. Continue feeding small amounts of food from the toothpick, stirring to sink some of the food into the bottom of the basket.

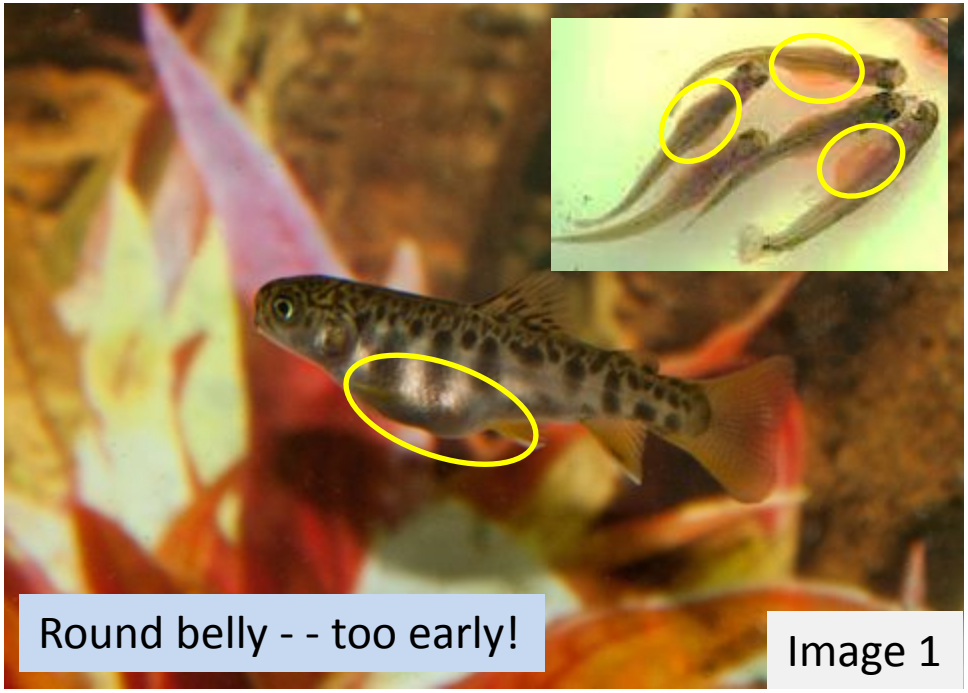
Feed fish once a day for the first 2 - 3 days. If the fry clears the food from the water surface in less than 5 minutes start to feed them two times a day for one to two days. Then begin to feed them 3 times a day. Then try a little more food on the end of the toothpick (say 1/8th inch). It is better to provide several small meals throughout the day than 1 - 2 larger meals.

It is suggested to leave the fry in the breeder basket for two reasons: first, the food is concentrated in a small area and is easy for the fish to find and second, the aggressive feeders "teach" the weak feeders how to feed.

10 Days post Swim-up: At this time, it is suggested to feed 3 - 4 "toothpicks" of food throughout the day. The net breeder basket will need to be cleaned with a turkey baster after 7 - 10 days of feedings to remove the fish waste. Suggestions are to:

- feed the fry in the net breeder basket for about 3 - 4 weeks before releasing them into the tank.
- clean the breeder basket daily with the turkey baster.
- begin using finger pinches of food instead of the toothpick. If you are feeding 3 - 4 finger pinches a day, measure how much that is with a 1/16th measuring spoon and begin to use a measuring spoon to guide how much you feed your fish each day.
- make notes to follow next year and allow your students to feed them only what you have pre-measured with a measuring spoon for a daily ration.
- not feed directly from the bag of fish food – results in guessing how much you are feeding the fish.

There are two major causes of fish mortality in the TIC program. The first is failure to pre-cycle your tank which will cause ammonia levels to injure your fish when you start to feed them. The second is releasing your fish too early (i.e., at swim-up) from the breeder basket into a large tank before they learn to feed and hunt for food. This causes the fry to starve and explains why some classrooms have perfectly good water chemistry levels but their fish are dying.



Round belly - - too early!

Image 1

When Do I Feed?

The timing of "first-feed" is critical in young trout. Initially, fry will "swim up" to inflate their air bladders - - *independent of the need for food* (Image 1). It is important to delay first-feed until the vast majority of fish (>50%) have only a small slit of yolk visible; research indicates that fish still have considerable yolk reserves when only a slit is present. Feeding **too early** is not advantageous to the fish and only creates a fouled tank environment. If you are in doubt, place a small number of fry in a clear glass beaker/jar to examine the ventral surface (belly) from below (Image 2).

Slender, small slit of yolk present - - perfect!

Yolk material remaining (seam appearance):

I = No!

I = Yes

Image 2

>50% w/only a small "seam" = FEED ME!