

Aeromonas Alley

Winter arrived in Georgia a little late this year. We have now seen our nightly temperatures dip to the upper teens and low 20's. Once the temps hit 45 degree F, our little fishes went into a condition of *Torpor*. (They are not moving very much).

Webster's says *torpor* is a condition of mental or physical inactivity or insensibility; lethargy or apathy. "Many of the people I am forced to work with are in a state of *torpor*."

Harold and I discussed what the next article should be and we agreed that we should remind all that the next possible cold water problem that we may encounter is that ugly rise of "Aeromonas and Pseudomonas" and the problems they might bring us. (So y'all watch out now, ya here?)

If one discusses Aeromonas, Pseudomonas needs to be lumped into the discussion as well. These pathogenic bacteria are the primary cause of all ulcer disease, fin rot, and mouth rot. That's right, ALL.

Although they do the above damage, they have a good function and that is to breakdown fish feces; their favorite snack. However, if one of our little fishes has a wound from a rock, a nibble of skin that has been taken out by a parasite, or a bump on the nose from foraging, the Aeromonas will attack those open sores. They are very opportunistic and will take the easy road to fresh food.

Let's think of these bugs like we think of cold or flu germs that could affect yours or mine immune system. They (germs and aeromonas) are with us all the time, ever present, always a threat, but only attack us when we lack the ability to fight them off.

Richard E. Carlson, AKCA, teaches us that the Aeromonas activity levels and the Koi's immune system are directly tied to our pond's water temperature.

These temperatures or "Magic Numbers" are guides for us to follow for every thing we do with our fishes and the ponds themselves. For example, don't feed until a certain temperature is reached, the temperature that has an effect in some cases on medical treatments, and temperatures when our fishes are most likely to get diseases. We refer to those temperatures as "*Aeromonas Alley*". That temperature range where we can expect problems to pop up.

"*Aeromonas Alley*" is when the ponds temperature is between 40 and 60 degrees F. That alley way of temperature where our little fishes are in the most danger of Aeromonas infections and Parasite attack.

Aeromonas become active at 42 F and remain to well above 90 degrees F. Our koi's immune system does not become effective to fight off infections until above 45 degrees F. We do not begin to feed our fish until above 50 degrees F. So, by the time our little fishes can even help themselves, those bugs are already doing the dastardly deeds.

So what are we to do? Consider these steps to reduce Aeromona loads in our ponds:

1. Remember that all bacteria thrive in high (I say any) organic environment. Clean, Clean, Clean your pond. Clean the bottom, clean your streams, and clean your filters. Clean often. Don't wait till a problem pops up.
2. Conduct water changes. If we conduct a 10, 20 or 30% change weekly, it stands to reason we reduce Aeromonas by that value. (The fishes love fresh water and don't forget to declor).
3. If possible, treat your pond with Potassium Permanganate. A therapeutic dose of 2ppm for 4-8 hours will do. (PP is very dangerous. Know what you are doing or ask for help).
4. Salt to .2 - .3% (after PP) for 14-21 days. This will reduce parasites. (Do this when H2O temperatures are above 45 – 50 degrees F, salt has a temperature lowering effect on the H2O).
5. DO NOT get in a big hurry to feed when temperatures go above 50 degrees F. Food means feces. Aeromonas feed on feces. Less feces, less Aeromonas. Less Aeromonas, less ulcers. Get the picture? When you do feed, feed an immune system enhancing feed for the first few weeks (14-21 days). Last year our club, through Coastal Pond, acquired Romet. I hope we do it again this year.
6. Use Lymnozyme above 45 degrees F. This product is a proven natural enzyme that starves aeromonas. Some people like to begin a regiment in the spring (above 45 degrees F) and again in the fall only. What ever helps.

Watch your critters for signs of problems. If a problem should arise, take the appropriate health action early. Your fishes will love you for it.

Joe