



FISHERIES SERIES

# TIMELY INFORMATION

## Agriculture & Natural Resources

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Fixing the damage caused by the drought in recreational fish ponds

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Clearly the drought of 2007 caused many negative effects on recreational fish ponds in Alabama. Reduced water levels crowded fish together reducing growth. Some ponds experienced fish kills and others dried up completely. While we have gotten some rain this winter filling many of the ponds back to overflowing, the effects of the drought will continue to be felt this year.

Some of the problems pond owners may experience this spring and summer are related to the low water levels last summer and fall. With the banks and pond bottom exposed, plants that normally grow on dry land quickly sprouted and grew. Weeds, grasses, and even small trees quickly grew head high in the moist often nutrient rich soil of the pond bottom. Some of these plants such as willows and other wetland plants will persist after the pond refills for a considerable time, perhaps even a few years. The weeds and grasses, however, will die and begin to decompose. The physical structure and the nutrients provided by these dead plants can result in tremendous growth of filamentous algae. By fertilizing the pond early and maintaining a water clarity of 18-24 inches one should be able to limit the extent that filamentous algae grow out into deep water. Grass carp will also help limit the algae.

Many species of filamentous algae only grow in the spring while water temperatures are low. These species will typically decline in late May and June so herbicides may not be necessary. The more persistent forms will require some level of herbicide control to prevent excess growth during the summer. Most of the herbicides used to control algae contain copper in some form as an active ingredient. Unfortunately, copper can be toxic to fish especially at low alkalinity. Before using any copper compounds, pond owners should have their water tested for alkalinity and should consult with an Extension professional.

Another critter that will take advantage of dry pond banks and bottoms is the fire ant. Fire ants take advantage of the availability of water and the mostly bare soils exposed as a pond recedes due to drought. Unfortunately, the ants cannot move away from the rapidly increasing water as the pond refills. As their borrows flood the fire ants escape to the surface where they grab on to each other forming floating rafts or clumps of ants. These rafts are often seen in the aftermath of floods. When the rafts drift to shore the colony can build a new nest on higher ground. While these rafts of biting insects pose a clear risk to anyone wading in flood waters they can also cause problems in the much more limited situation of a refilling pond. Fish in the pond, particularly

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bluegill, will actively feed on fire ants floating on the pond surface. This often happens when the ant colony swarms during reproduction in the spring and the spent winged males or drones fall to the pond surface. Eating these ants can lead to the death of the fish.

Controlling fire ants around the pond edge to reduce swarms that could fall onto the water is a good idea. Controlling the fire ants will make fishing around the pond a more carefree experience as well. One should not use any fire ant insecticides in the area of the pond that will flood upon refilling. Insecticides can be extremely toxic to fish. The biology of fire ants and methods of control are well summarized in Alabama Cooperative Extension publication **ANR-175, Imported Fire Ants in Lawns, Turf, and Structures**, available through the county extension offices and online at <http://www.aces.edu/pubs/docs/A/ANR-0175/>.

The crowding and reduced area of the pond during the drought likely caused significant reductions in the bluegill populations of many ponds. This could make the pond very bass-crowded. To correct this, it is necessary to harvest 20-25 lbs. of bass per acre in a fertilized pond and 10 lbs per acre in an unfertilized one. While bass can be harvested throughout the year, it is important to start taking these fish out in the spring to allow the bluegill to build their populations up this summer. It is best to target bass under 14 inches for harvest but larger fish can be taken as well. Proper fertilization will support bluegill production but their growth can be further enhanced with supplemental feeding with floating catfish food.

To correct the persistent negative effects of the drought returning the pond to high productivity with the fish populations in balance pond owners should do the following

- If fertilization is planned, start the process early to help prevent weeds and stimulate the growth and reproduction of bluegill.
- Control the persistent filamentous algae before they get completely out of hand.
- Control fire ant mounds around the pond but not in areas that will flood using baits.
- Make sure to actively harvest the bass to allow bluegills to rebuild their populations.