

POND FERTILIZATION

BIOLOGY JOB SHEET TX-4

APRIL 1995

Adding nutrients to your pond will increase the growth of microscopic green plants (planktonic algae) which will impart a green color to the water. Benefits include:

1. increased food supply,
2. more fish,
3. healthier fish, and
4. less "pond scum", "moss", and other bothersome aquatic plants.

Benefits don't necessarily come without work and risk. Timing of application in the spring is critical, and once fertilization is commenced, it should be continued for the entire growing season. If fertilization is discontinued after 2 or 3 applications, unwanted aquatic vegetation will likely become a problem.

Pond fertilization is an excellent management practice, but pros and cons should be considered up front. It definitely is a job that should not be done if it can't be done right.

- A. Begin fertilizing in late winter or early spring when water temperatures reach 60 degrees F.
- B. Apply 50 pounds of 20-20-5 or 16-20-0 granular fertilizer per surface acre or 2 gallons of 10-34-0 liquid fertilizer per surface acre. Use this amount each time you fertilize
- C. Repeat every two weeks until the water develops a green color that will cause an 8-inch Secchi disk to disappear at a water depth of 15 inches. Secchi disks are commercially available or can be made by (1) cutting an 8-inch disk out of the lid of a 5-gallon white pickle bucket, (2) marking the disk into quarters and painting opposite quarters black, and (3) attaching the disk to a yardstick.

- D. Check water color every few weeks. When the white disk is visible at 25 inches, add another fertilizer application.
- E. Maintain green water color through summer and fall until water temperatures decline to 65 degrees F.
- F. DO NOT FERTILIZE
 - 1. Water that is permanently muddy or cloudy
 - 2. Soft water (total alkalinity less than 25 mg/L)
 - a. Local offices of Natural Resources Conservation Service (formerly Soil Conservation Service) or Texas Agricultural Extension Service can assist in determining alkalinity.
 - b. If water is soft, add two to three tons of agricultural limestone per surface acre to raise alkalinity above 50 mg/L before beginning a fertilization program.
 - 3. Ponds with more than 15% of surface water less than three feet deep
 - 4. Ponds with perennial flow through the spillway or over the dam. Flow devices can be installed that will remove base flow from the pond bottom and retain fertilized surface waters within the pond.
 - 5. Ponds with actively growing aquatic vegetation ("moss", "scum", weeds). Control vegetation; then fertilize.
 - 6. One or twice, then stop. Maintain the green water during the entire growing season.
- G. Apply granular fertilizer by dissolving it in pond water. Cut open 50 pound bags lengthwise. Submerge a few inches beneath the water surface. Water currents will dissolve and distribute the fertilizer. Laying bags of fertilizer on submerged lumber pallets in shallow water works well.
- H. When applying liquid fertilizer, mix each gallon of fertilizer with 5 gallons of water. Splash or spray the solution over the pond surface. DO NOT pour liquid fertilizer directly into the pond.