

none per acre-foot, you will need 3.25 gallons of rotenone (1 acre X 5 feet X 0.65 gallons per acre-foot = 3.25 gallons).

The next step is preparing the rotenone for application. If the powdered form is used, water is first added to the powder to form a paste. Additional water is then added until the paste is evenly mixed with the water (about 10 gallons of water to 5 pounds of rotenone). Likewise, the liquid form is diluted with water (about 1 gallon of rotenone with 10 gallons of water).

Finally, the rotenone is applied to the pond. Uniform distribution of the rotenone-water mixture is necessary to assure the complete removal of all fish. Most areas can be treated by pouring the chemical into the prop wash of an outboard as you slowly motor around and across the pond. Rotenone can be applied to shallow marshy areas and the shoreline with a garden sprayer. Deep areas should be treated by either pumping the chemical below the surface or by gravity feeding the rotenone through a perforated hose that is weighted at one end while moving across the deep areas. The reintroduction of unwanted fish species can occur from small pockets of water located upstream from the treated pond. To prevent this from happening, these areas should also be treated.

Ponds should be stocked soon after reclamation, but not until the rotenone is detoxified, generally about 7 to 14 days after application. In cold water, rotenone may remain toxic for longer periods of time. Toxicity can be tested by placing several live fish into a cage placed in the pond, and then observing the fish for several days to make sure that none of them die.

Scaled fish can be selectively removed from catfish ponds without harming the catfish by using Antimycin-a according to label directions. This chemical is most effective at warm temperatures and in neutral or slightly acid ponds.

Feeding Your Fish

Fish can be fed artificial diets on an occasional basis to attract them to selected areas so that they can be more readily caught by anglers, or fed more intensively to promote rapid growth and higher standing crops (pounds per acre). Species such as the channel catfish and bluegill respond well to artificial feeds. Commercially produced pelleted catfish feed is an excellent choice (for further information, see Florida Cooperative Extension Service Fact Sheet FA-1, "Catfish Feeds and Feeding"). Floating pellets are preferred over sinking feeds because species such as the bluegill will better utilize the floating form, and the pond owner will be able to determine if all the feed is being eaten. In addition, the pond owner will

be able to determine if the fish go off feed, which could be an indication that the fish are sick or water quality is poor.

If a pond is heavily fished, an intensive feeding program can be established. Begin by feeding at a rate of two pounds per surface acre per day. Feed at several locations around the pond. Feeding should be daily, at the same time, and at the same locations. Feeding rates can be increased as the fish learn to take the pellets, but do not exceed ten pounds of feed per surface acre per day, and do not feed the fish more than they can eat in 10 to 15 minutes. Also, do not feed them when the water temperature is below 60°F, or, above 95°F. Fish do not actively feed at these times. Excessive feeding can lead to the increased chance of fish kills due to low oxygen and can become costly.



Feeding small quantities of food or on an occasional basis will likely have limited benefits to increased fish growth and standing crops. Feeding fish can, however, be an enjoyable experience, and should help in attracting fish to established feeding locations so that they can be more readily caught. Feeding may indirectly increase the natural productivity of a pond by introducing small quantities of nutrients into the pond each time the fish are fed.

Fish Diseases, Parasites, and Kills

Fish are prone to diseases and parasites just like any other animal. Their diseases are caused by bacteria, fungi, or viruses (see Florida Cooperative Extension Service Circular 716, "Introduction to Fish Parasites and Diseases and Their Treatment"). Fish are most susceptible to disease outbreaks in the spring as water temperatures are increasing and their resistance is at its lowest coming out of the winter,