

NUTRITIONAL NEEDS OF CATFISH

While it is true that channel catfish do not eat as much food in winter, paying attention to their diets will mean more potential profits from brood fish, fingerlings and harvestable sized fish that must be carried over.

While brood catfish spawn once a year in the summer and the females begin right away to form eggs for the next year. It is especially important they receive proper nutrition during the cooler months to produce a good crop of eggs. Research has shown that many more viable eggs are produced when fish is included in their diets. An effective way to do this is to stock fathead minnows in with the brood fish. Along with the fish flesh, a supplemental diet of pelleted catfish food, fed at the rate of 1 percent of their body weight on alternate days, will keep the brood fish in good condition and enable them to spawn successfully.

Catfish fingerlings are much more active in cooler water than adults and may take some food even when ice is around the edges of ponds. Their performance in production ponds the following summer will depend to a large extent on the way their nutritional requirements are met during the cooler winter months. Unless they are fed adequately in the winter, they will become emaciated and more susceptible to parasite and disease problems. Skeletal deformities from vitamin C deficiency may be particularly prevalent.

Food-size catfish held over during these months in production ponds without feeding lose about 9 percent of their weight. When fed 1 percent of their body weight either on alternate days or on days when surface water temperatures are 54 degrees F or above in mid-afternoon, you should see a gain of about 18 percent body weight during winter months. They will be in good condition and ready to go to market at the proper time. Fish food is expensive and certainly does not need to be wasted, but by using good feeding practices catfish farmers can expect much better performance by all their fish. The ends results will be worth it.

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MANAGE WATER QUALITY FOR FINGERLING PRODUCTION

Good water quality is of utmost importance to production of healthy fingerlings. Everything else can be done correctly, but if water quality management is neglected, fingerling production will be low.

A low level of dissolved oxygen (DO) is the most common water quality problem. Since fingerling growth can be severely slowed when DO remains below 3 parts per million (ppm) for lengthy periods, every effort should be made to maintain levels above 4 ppm. Even though the fish may not die directly from low oxygen, stress from such conditions often lowers resistance to diseases.

Microscopic algae, the plants that give water a green color, produce oxygen during daylight hours and put it into the water. No oxygen is produced at night, but fish, algae and other organisms continue to remove oxygen from the water. Also, cloudy days will reduce the amount of DO. The probability of low DO increases with higher fish densities and more food added to

the pond. With a stocking rate of 50,000 per acre, you could have as much as 3,000 pounds by this fall as the fingerlings grow.

Either an oxygen test kit or an oxygen meter would certainly be a worthwhile investment for any fingerling producer. Dissolved oxygen levels should be taken daily at dawn and dusk during warm weather in ponds that are heavily stocked and receiving large amounts of food. This is especially important when water visibility is less than 18 inches and during cloudy days. When daily records of DO are kept on each pond, low oxygen problems can often be predicted and emergency aeration equipment put into place before a catastrophe occurs.

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