
Farmers and Fish Love Cocoa

In the tropics, the tilapia is considered one of the most promising fish for growing in ponds. These fish can grow reasonably well by feeding on microorganisms in nutrient rich water. However, for faster growth they are sometimes fed a homemade fish food. This can be expensive. Researchers in the piscicultural research unit of IRAD in Cameroon, working in a rural setting, developed a fish food partially made from powdered cocoa fruit husks. It was found that “baby” tilapia grew normally when fed for three weeks on mixtures of differing concentration of cocoa.

A kilo of “classic” tilapia feed (a blend of cornmeal, wheat-bran and rice) normally costs about 190 F CFA (about 35 cents US), but this drops to 13 F CFA (2 cents US) if 200 g is replaced by powdered cocoa husk. Cocoa husks are plentiful in cocoa growing regions and are usually discarded at the foot of the tree during harvesting. To obtain a protein rich, inexpensive feed supplement, the husks are sun-dried and ground to a powder.

ECHO went to the web site of the International Cocoa Institute to check out the nutritional content of cocoa pod husks. The site says that as far as they know the pods do not contain caffeine. They quoted one research report that gave the following nutritional content: dry matter 84.7%, crude protein 10.2%, crude fiber 34.9%, and potassium 3.6%.

Theobromine content was 0.32%, though the Merck Index says 0.7-1.2%. Theobromine is also found in tea and has physiological activity. It is used in veterinarian medicine as a diuretic, myocardial stimulant, and vasodilator. We doubt if this would cause a problem with the fish, but would feel better if this study had been continued for more than three weeks to make sure there were no adverse reactions to anything in the diet over time.

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