Poster #46

Development of Small Scale Aquaculture Farms in North Florida

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This program provides teaching, research and extension assistance to small farmers operating small-scale aquaculture farms, which utilize natural water bodies to contribute to food production. Thus the program supports the development of the aquaculture industry and the economy of Florida. A specific objective was to bring together production, economic and marketing specialists in integrated demonstration of projects to optimize production systems (ponds, tanks, raceways cages and hybrid systems), spawning and hatchery techniques, microencapsulated feeds, batch plankton culture procedures, preventive aquatic animal health practices and product value. The program addresses problems/needs of small, limited resource and economically disadvantaged farmers and facilitates cooperation of specialists and county agents in finding solutions to various challenges encountered in the industry. Initially the project involved ten (10) existing and new farmers in counties within a one hundred (100) mile radius. Farmers currently growing fish and those interested in growing fish, with or without ownership of existing water bodies, were identified. The project began in July 2006 at FAMU Research and Extension Center, Quincy, Florida, where there are ponds; and it provided classroom and hands-on training and a farm visit was made with each farmer. A training curriculum was developed with modules and information used for the instruction. Fourteen farmers were trained on the best management practices and alternative methods for improvement of production systems for fish (e.g. Bait fish and Sturgeon). Marketing strategies were addressed to sustain the increased production of fish and profitability. Four ponds were revitalized and once per week pH, temperature, depth and dissolved oxygen data were collected as the ponds stabilized. Brochures were developed to support development of small scale enterprises, production of fingerlings and utilization of existing natural resources and reduction of specialized inputs.

Keywords: Aquaculture, small scale farms, fish production

Poster #47

Comparison of Oral Administration of Various Doses of Moxidectin and Ivermectin Pour-On Formulations against Intestinal Parasites in Meat Goats

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A total of 64 meat goats (6 months old) were used to investigate the effects of various doses of two anthelmintics on naturally occurring intestinal parasites in two feeding systems (32 animals each). Animals in the extensive system received grazing only and those in the semi-intensive system received grazing plus 1.1 kg of a 12% protein pellet per head per day. Animals in both systems received treatments of Moxidectin (MOX) and Ivermectin (IVM) at 0.275 mg/kg; 0.550 mg/kg and 0.825 mg/kg bodyweight and 0 mg/kg (CONT). Two males and 2 females were randomly assigned to each treatment. A single dose of MOX or IVM was administered orally to each treated animal at Day 0. A fecal sample was taken from each animal on Days 0, 7, 28, 56, and 84 for evaluation of parasite eggs. Body weights were taken on Days 0, 28, 56, and 84. Sampling began on March 8, 2005 and ended on June 15, 2005. In the extensive system, IVM-treated animals (19.95 kg) had a higher average bodyweight gain than those treated with MOX (17.14 kg). MOX-treated animals, 0.550 mg/kg had slightly higher bodyweight gain (5.77 kg) than CONT animals (5.14 kg). In IVM-treated animals, 0.825 mg/kg had the highest bodyweight gain (6 kg). In the semi-intensive system, MOX-treated animals (25.23 kg) had slightly higher average bodyweight gain than IVM-treated (24.64 kg). MOX-treated, 0.825 mg/kg and CONT animals had similar bodyweight gain (6.59 and 6.54 kg). IVM-treated animals, 0.825 mg/kg had the highest bodyweight gain (7.59 kg). Fecal samples showed marked reductions in parasite egg counts in MOX-, IVM-treated and CONT animals for both systems. In the extensive system, MOX-treated animals, had parasite eggs only in animals treated with 0.550 mg/kg whereas IVM-treated animals had no eggs in animals treated with 0.825 mg/kg, and CONT animals at the end of the study. In the semi-intensive system, no parasite eggs were detected in any sample in MOX- treated but were in CONT animals at the end of the study. In IVM-treated animals, 0.550 mg/kg, and CONT animals, no parasite eggs were detected at the end of the study.

**Keywords:** Moxidectin, ivermectin, meat goats