Insect Pest Management on Beef Cattle: Research Programs and Recommendations

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Entomological research activity on controlling flies and other ectoparasites on beef cattle has been continuous at both the Santa Fe Beef and the Citra Research Units for a number of years. The horn fly has been the principal pest target (of the leading 400 kinds) because it is the number one damage producer on livestock, with 50 flies per animal producing economic losses.

Horn fly seasonal herd populations have been followed, with the highest mean per animal count seen at 2,256 in 1991. Normal midsummer populations average 500 per animal.

Field populations of horn flies were evaluated to determine insecticide resistance levels in south and south coastal Florida. Resistance levels for Pirimiphosmethyl LD 50 at 3.94 ug/cm^2 were minimally above expected levels at 3X. Cyhalothrin resistance levels were seen as high as 225X when compared to the Florida fly strain; no pyrethroid ear tag works with resistance levels this high.

Research activity has been targeted to support new pesticide label applications. New issued labels are then included into the extension recommendations for the state. The revised Extension Recommendations for Beef Cattle are included in this presentation.

Work under way includes evaluating effectiveness of new proposed ear tags, pour-ons and delivery systems.