## Production Enhancement – Calf Implants Mel Pence DVM, MS, PAS, Diplomate ABVP (beef cattle) University of Georgia, College of Veterinary Medicine

One of the most economically rewarding procedures in animal agriculture is implanting calves. Implanting calves will increase profit in two ways. First, it will increase the amount of protein the calf is able to turn into muscle and secondly it will improve feed efficiency. Implanting a 30-day-old, steer, calf will increase average daily gain by about 10% and his feed efficiency by about 8%. That means if he normally gains 2 pounds per day over a 100-day implant period, you can increase his rate of gain by .10 X 2 X 100 or 20 pounds. Steer calves may sell for \$1.00 or more per pound. By implanting, you have gained \$20.00. Your out of pocket cost was \$1.00 to \$2.00 plus labor to gain \$20.00. This gain occurred with a minimal increase in feed cost. There are two implant types used on young calves, zeranol is the active ingredient in Ralgro and estradiol benzoate is the active ingredient in Synovex – C and Calfoid. Over a large number of studies, both types of implants result in similar gains and efficiencies. Ralgro has its effect early with a peak at about 70 days and Synovex – C has an effect later with a peak at about 120 days.

If you work your calves again at 70 - 120 days of age, you could re-implant and get the full benefit of the implant over the next 100 days or so. That means you continue to get an increased rate of gain of 10% with an 8% increase in feed efficiency. You gained an additional \$20.00 in today's market. If you are retaining ownership in the Georgia Challenge Program, you may want to wait on the second implant until your calves enter the feedlot when they should be gaining at the rate of 3 pounds per day.

Pitfalls of implanting include poor implant technique, implanting non-castrated males and replacement heifers at the wrong age. Consequently it is important to follow label directions in relation to implanting heifers. In general, there is no reason to implant a heifer you know you will keep. If you are uncertain of the replacement heifers and you are saving a small percent of heifers, implant all heifers between 45 days of age and 400 pounds one time with an approved product. Don't implant a male calf that is destined to become a bull.

The goal of the implant procedure is to place the implant under the skin of the back of the ear about half way between the head and the tip of the ear and half way between the top and bottom. It is not difficult to do, but cleanliness and a sharp needle are very important, as with any injection. Contamination results in an infection and loss of implant effectiveness. Also, it is important not to force the implant into the ear because misalignment or crushing may result. This changes the absorption rate and thus the effectiveness.

As mentioned previously, implanting is the most financially rewarding processing procedure. Unlike most procedures aimed at preventing problems or losses, this is one procedure that can put you in control of production. Just make sure it is done correctly, at the right time, and involves the right animals.