What Implantable Products Are Available For Cattle?

Editor's Note: The safety of beef from cattle implanted with growth promotants was discussed in Part 1 of this article. Now, in Part 2, application of such implants will be discussed.

> Lowell L. Wilson Professor Of **Animal Science** Penn State

UNIVERSITY PARK (Centre Co.) — The active ingredients in different implantable products and the animals for which they have been approved are presented in Table 2.1.

Implants are categorized as natural steroid, synthetic steroidlike, and nonsteroid compounds. Although most cattle producers are familiar with the correct use of implants, three factors must be emphasized: (1) Implants should be used only in those animals and in those dosages which have been approved and are recommended on the product label; (2) Each producer should develop an "implant strategy" for the use of these products within his/her own system; (3) "Doubling-up" implants (using two products simultaneously or implanting too frequently) is usually a waste of money and can decrease animal performance and/ or carcass quality.

Common Mistakes And Corrective Measures

Because implants act much like hormones, their use represents replacement or supplementation of hormones.

Castrated males produce little natural estrogen (female hormone), and their androgen (male hormone) production is low. Finaplix-S

Therefore, estrogens are the primary and androgen the secondary hormones to be replaced or supplemented in steers.

In heifers, androgen level is very low, and estrogens fluctuate. Therefore, androgen production is the primary hormone and estrogens the secondary hormones to be replaced or supplemented in heifers.

All of the companies manufacturing growth-promotant implants have developed excellent instructional materials that should be reviewed by any individual who implants cattle. Almost anyone can insert implants, but it is easy to make mistakes that render the implant ineffective.

Table 2.2 summarizes problems observed in misusing implants, the probable causes, and how these mistakes can be remedied. Basically, the person doing the implanting must not work too quickly, must place the implant in the proper position (middle third of the ear from head to tip), and must

use sanitary procedures with both ear and implanting equipment.

Growth And Carcass Changes

Implant side effects such as stagginess, bulling, and vaginal prolapse have been reported. While there is individual variability in how animals metabolize compounds administered through implanting, adverse side effects such as these usually are due to poor implanting technique.

For example, if an implant is crushed or placed too close to the base of the ear, the level of hormone in the animal will be increased immediately due to a high early absorption rate. If implants are placed in the cartilage, form abscesses, or have pellets missing, a low level of circuPoor needle, too fast. Implant only in middle one third of ear

lating compound will result.

This wide variation of hormone level among individuals within a group can lead to bulling and riding problems. Again, this is not the fault of the product, but rather of the manner in which it was implanted.

Under recommended usage, practically every implant will provide a 5- to 25-percent increase in average daily gain in most types of cattle. Increases in feedconversion efficiency are less, usually ranging from 5 to 15 percent. There may be an increase in appetite, but even if feed consumption is not increased - such as in a controlled, limit-feeding situation - there should still be an increase in growth rate. The increase in feed-conversion efficiency may be nill or negligible.

Growth-promoting implants act by diverting nutrients within the

animal's body to muscle deposition and by extending the animal's growth period. Although meat from implanted cattle seems to have less fat, the same amount is simply distributed throughout an increased amount of available muscle tissue, giving the appearance of a leaner meat. If implanted and nonimplanted animals of similar frame size are slaughtered at the same weight and compared as to carcass quality grade (marbling), implanted cattle usually grade lower. However, if slaughtered at the same compositional endpoint (fat thickness, for example), carcass quality grade usually does not differ. Some studies have indicated increases in average daily gain of up to 25 percent and a \$40 per head return over cost from the use of implants. Average return over cost is \$5 to \$15 per head.

(Turn to Page C11)

Composting **Training** Sessions To Be Held

CREAMERY, (Montgomery Co.) — A Master Composter training series will be offered again this year by Montgomery County Cooperative Extension's Recycling Education Program.

The training includes three Thursday evening sessions from 6:45 p.m. to 8:45 p.m. on Oct. 20, 27, and Nov. 3, and will cover in-depth information on the biology of composting, composting, techniques, troubleshooting, and alternatives to composting It will take place at the Upper Dublir Township building on Loch Alsh Road in Upper Dublin.

At the final session on Saturday, Nov. 5, a compost park will be constructed. Compost parks are working exhibits of various types of compost bins complete with detailed signs about the bins, and brochures on how to compost. The parks are maintained by Master Composters.

The training is free, but registration is required. To register, call the organic waste Recycling Education program at (610) 454-1245.

Broken Down Deteriorating Walls Need Repairs?

LET MAR-ALLEN CONCRETE "The Concrete Specialsts"

SOLVE YOUR PROBLEM

As Shown in Picture

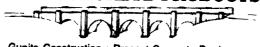


Block Wall Being Restored With Gunite

- · Stone Wall Repairs
- Installation & Maintenance-of Concrete Bunker Silos
- PreCast Gunite Lined Water or
- Manure Storage Tanks
- Dam, Reservoir & Spillway
- Repair
- · Slatted Floor Systems
- · Silo Repairs

We're The "Concrete Specialists

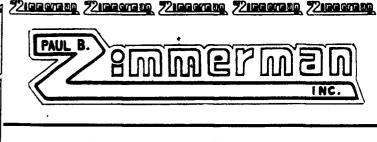
MAR-ALLEN CONCRETE PRODUCTS, INC.



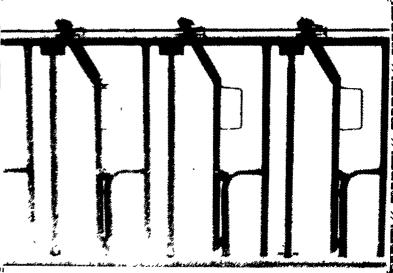
Gunite Construction • Precast Concrete Products

20 Cocalico Creek Rd. Ephrata, PA 17522 (717) 859-4921

1-800-477-4921



HEADLOCKS



THREE SIZES AVAILABLE TO MEET ALL YOUR CATTLE HANDLING NEEDS **EXTRA HEAVY CONSTRUCTION FEATURES**

* 1.9" O.D. High Yield Tube Top & Bottom Frame

* 1" structural pipe on verticals & locks

* All yokes lock on individual catches, no strain on control rod

* Yoke stabilizer on large sizes

* Unique design allows more head room

* Neck bar can be removed or adjusted without tools

* Individual lock on each yoke for holding one or more 721000000

No loose pins or parts to get lost in manure or drop in pit

295 Woodcorner Rd. Lititz, PA 17543 1 Mile West of Ephrata PH: 717-738-7365

Addition > Infomation And Your Nearest Dealer 721<u>00000000</u>, 7210000000, 7210000000<u>0</u>, 72100000000