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Growth Stimulant Substitutes for Stilbestrol

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In 1954 stilbestrol was first approved as a growth-promoting drug and became an accepted standard. Probably no other drug has had such an effect on the livestock industry as stilbestrol. As many as 85% of fed cattle have been receiving stilbestrol in some form, saving producers \$7 to \$14 per animal in production costs. Its reasonable cost and convenience overshadowed other materials available. As of January 1, 1973, oral feeding of stilbestrol was no longer allowed and later in the year the implant was banned.

This legislative action left cattle producers looking for available substitutes and fortunately there has been considerable research on other growth promoting drugs which are alternatives to stilbestrol. Here are the common growth promoting drugs that are approved.

RALGRO IMPLANTS

Ralgro (zeranol) is a growth stimulating implant which avoids many of the common objections since it does not contain a hormone. Ralgro is made from an extract of corn mold and can be used for both steers and heifers. Since there is no hormone activity, there are none of the side effects that sometimes occur with other implants. Gain response and efficiency from Ralgro have been about equal to that of stilbestrol. Ralgro implants apparently last for at least 100 days. Implanting once at the beginning of the finishing period should be sufficient.

The level approved for steers and heifers is 36 mg. (three pellets). The withdrawal time is 65 days between implanting and slaughter, which means a feeder can't implant just 65 days before slaughter time.

With growing calves they should be implanted at the beginning of the feeding period (36 mg.) and reimplanted with 36 mg. at the beginning of the finishing period.

For nursing calves the level of implant is also 36 mg.

Implants are placed in the ear the same as stilbestrol. The same implant machine can be used as the pellets are the same size. The cost of the Ralgro pellets will be higher than stilbestrol running at approximately 70 cents per treatment.

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A summary of the presentation given at Cattle Feeders Day, November 2, 1973.

### SYNOVEX IMPLANTS

Synovex is a hormone implant which comes in two preparations, one type for heifers and the other for steers. Synovex-H for heifers contains the hormones testosterone and estradiol. Synovex-S for steers contains the hormones progesterone and estradiol. The hormone preparations are contained in small pellets which are implanted in the ear. One capsule contains the proper number of pellets for an animal.

Generally, research has shown that response to Synovex in weight gains and feed efficiency is equal to, or perhaps slightly greater than, response to stilbestrol implants.

The implants last about 150 days and cannot be used within 60 days of slaughter. A producer feeding calves would therefore implant at the start of the feeding program and reimplant after 120 days. A producer feeding yearling cattle or cattle that are to be fed 130 to 170 days would implant only once.

Synovex implants cost approximately 80 to 90 cents per animal. As with other implants, it is not recommended for breeding cattle.

### MGA FOR HEIFERS

Melengestrol Acetate (MGA) is a growth promoting drug approved as a feed additive for finishing mature heifers. Although MGA is a hormone, it is a progesterone, differing from the estrogenic activity of stilbestrol and other hormone growth stimulants.

For heifers which have reached sexual maturity, MGA depresses heat periods and increases the rate of feedlot gain. Rate of gain is increased as much or more than from stilbestrol. Boosts in feed efficiency generally amount to around 8%. However, little, if any, advantage will be seen in heifers which have not reached maturity. Heifers must be open for the drug to be beneficial. It is not effective for steers.

Since MGA is available only in feed form, its use for grazed heifers is limited. Good results depend on adequate consumption of the material in the feed.

Current regulations call for a level of 0.25 mg. to 0.5 mg. per head per day in the feed. A 48-hour withdrawal is required before slaughter. Since heifers will return to heat after MGA is removed from feed, withdrawal for longer than 72 hours is not recommended. Cost is approximately \$1.25 to \$1.50 per head for 140-day feeding period.

Producers who do not take advantage of these growth promoting drugs are losing a great advantage in reducing production costs. Be sure to follow the directions on the drug containers as to proper use of the drugs.