

Growth Promoters



growth promoters

- Improved growth rate
- Improved feed efficiency
- Improved carcass quality



growth promoters

- health conscious consumers
- trimmer carcass



growth promoters

- **anabolic steroids / HGP**s
 - natural & synthetic
 - mostly testosterone derivatives
- **beta adrenoceptor agonists**
 - clenbuterol (illegal)
 - ractopamine (pigs with SOP)
- **somatotropin (BST)**



more growth promoters

- antibiotic (feed additives)
- rumen modifiers
 - ionophores – e.g. monensin
- probiotics
 - *Lactobacillus* spp



hormonal growth promoters

- Good nutrition is essential
- Record keeping required
- European Union bans use



hormonal growth promoters

- **androgens**
 - testosterone
 - trenbolone acetate
- **oestrogens**
 - oestradiol
 - zeranol
- **progestagens**
 - progesterone



Hormonal Growth Promotants

- **mechanism of action**
 - increase nitrogen retention
 - decrease catabolism
 - growth hormone



hormonal growth promoters

- rate of gain \uparrow 10-15%
- more muscling
 - thicker fibrils
 - may be tougher meat
- less fat (wastage)



side effects

- increased mounting
- rectal & vaginal prolapse
- oedema
- udder development
- abortion if pregnant



hormonal growth promoters

- **Compudose 100, 200, 400**
 - Oestradiol benzoate
- **Implus Magnum**
 - Oestradiol benzoate
 - Trenbolone acetate



hormonal growth promoters

- **Revalor – H and Revalor – S:**
 - Oestradiol benzoate
 - Trenbolone acetate



hormonal growth promoters

- **Synovex – S, – H, - Plus:**
 - Oestradiol monobenzoate
 - Trenbolone acetate
- **Synovex – C**
 - Oestradiol monobenzoate
 - Progesterone



uses

- **Steers, Heifers (non-breeding)**
 - Compudose, Implus, Revalor & Synovex
- **Calves**
 - Compudose, Implus, Revalor & Synovex
- **Bulls**
 - (zeranol - Ralgro® no NZ license)



MAF Requirements

- HGPs are for use in cattle only.
- HGPs are administered by a veterinarian or trained technician.
- HGPs implanted in the ear only



MAF Requirements

- **ear tags**

- MAF approved ear tag
- secondary ID tag
- orange “growth promotant” tag
- lost ear tags must be replaced
- MAF approved ear tags must not be used for any other purpose



hormonal growth promoters



MAF Requirements

- Records completed at time of implantation and kept for 5 years
- Fines up to \$20,000 for individuals and up to \$100,000 for companies for non-compliance



hormonal growth promoters

ANABOLIC IMPLANTS AND NEEDLES

RALGRO®



SYNOVEX®-S



STEER-OID®

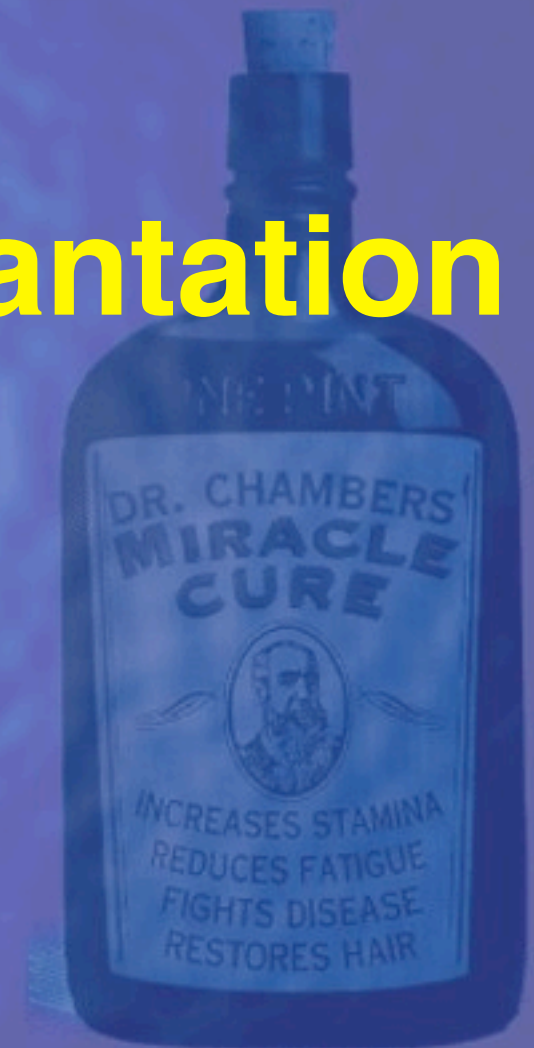


COMPUDOSE®





implantation



anabolic steroids

- **uses**

- convalescing animals
- renal disease (anaemia)
- performance enhancers

- **products**

- ethylestrenol
- nandrolone
- stanozolol



anabolic steroids

- Stimulate erythropoiesis
 - Bone marrow
- Stimulate appetite
- Muscle mass increased
- Promote healing



contraindications

- Anticoagulants (warfarin)
- Diabetes - ↓ insulin need
- Liver disease



consider

- Monitor liver function (tests)
- Monitor weight
- Appetite
- Blood – serum electrolytes



somatotropin

- **peptide**
 - must be injected daily
- **use**
 - BST used overseas
 - PST registered in NZ but not used
 - EST registered but no real indications



growth promoters

- **HGPs cattle only**
 - National database: <http://atis.org.nz>
 - info: <http://www.foodsafety.govt.nz/industry/sectors/meat-ostrich-emu-game/hgps/vets.htm>
- **Anabolic steroids**
 - use with great care - diversion
- **Rumen modifiers**
 - minimal anabolic effect on grazing cattle

