

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** ↑ 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 - Raigro® no NZ license)

MAF Requirements

- HGP's are for use in cattle only.
- HGP's are administered by a veterinarian or trained technician.
- HGP's 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



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**

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contraindications

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

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consider

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

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somatotropin

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

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growth promoters

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