

IMPACT OF GROWTH PROMOTER ONLY BAN ON AVAILABILITY OF CRITICALLY OR HIGHLY IMPORTANT ANTIMICROBIALS FOR USE ON FARM

CRITICALLY IMPORTANT CLASSES UNDER FDA GUIDANCE #152

Macrolides (Main drug is tylosin; erythromycin and oleandomycin are approved but not likely marketed as feed additives)

Summary – Main effect would be to eliminate tylosin use at low doses in chickens. Tylosin could not be used at lowest doses in swine.

- Chickens - erythromycin, oleandomycin, and tylosin for growth withdrawn, but erythromycin and tylosin could be used at higher levels for prevention. The level of tylosin is much higher for prevention.
- Turkeys - erythromycin and oleandomycin withdrawn for growth, but erythromycin could be marketed at a level 10 times higher for prevention.
- Swine - erythromycin and oleandomycin would be withdrawn altogether. Tylosin could not be used at the lowest growth promotion levels, but could continue to be used at higher growth levels as prevention. Tylosin/Sulfamethazine combination in swine is approved at same level for growth or prevention.
- Cattle – no growth approvals, so no effect.

Sulfonamides (Mainly used in combinations with tetracyclines or tylosin in pigs)

Summary – Very limited impact, if any, because primary use in pigs has complete overlap with prevention. Use in cattle may be impacted.

- Poultry - no growth approvals, so no effect.
- Swine - no effect as growth approvals in combinations have complete overlap with prevention.
- Cattle – Sulfamethazine in combination with chlortetracycline may be withdrawn. Label is for maintenance of growth in presence of shipping fever.

HIGHLY IMPORTANT UNDER FDA GUIDANCE #152

Aminoglycosides (Growth approvals only for use in combination with oxytetracycline)

Summary – Aminoglycosides would need to be used at higher dose in calves, poultry, and swine. For growing cattle no change as prevention and growth are at same dose.

- Poultry – Growth levels withdrawn but would be available at higher level for prevention.
- Swine – Growth levels withdrawn but would be available at higher level for prevention.
- Cattle – Lower levels for efficiency in calves would be withdrawn, but complete overlap with liver abscess prevention in growing cattle (over 400 lbs).

Lincosamides (Only approved for growth in chickens and swine)

Summary – Only change would be that drug would need to be used at higher dose in swine and could not use highest growth promoting dose in chickens.

- Chicken – Growth levels withdrawn, but overlap with prevention.
- Turkey - No approvals, so no effect.
- Swine – Growth levels withdrawn, but would be available at higher level for prevention.
- Cattle – No approvals, so no effect.

Penicillins (Approved for growth in poultry with combination approvals for growth in swine)

Summary – Only impact is that penicillin could no longer be used for growth in poultry. More important uses in swine would be unaffected.

- Poultry– Growth levels withdrawn.
- Swine – Growth levels withdrawn for combinations but complete overlap with prevention.
- Cattle – No feed approvals, so no effect.

Streptogramins (Approved for growth and prevention in all species except turkeys where it is only for growth)

Summary – Turkeys would no longer have feed approval, chicken and swine could use virginiamycin at higher dose, cattle no change as prevention and growth are the same.

- Chicken – Growth levels withdrawn but slightly higher dose for prevention
- Turkey – Growth levels withdrawn.
- Swine – Growth levels withdrawn but would be available at slightly higher level for prevention.
- Cattle – Growth level withdrawn but overlap for prevention.

Tetracyclines (Combinations already discussed elsewhere will not be included, all species have growth and prevention approvals)

Summary – Poultry and swine would have to use higher dose but cattle have complete overlap between growth and prevention.

- Poultry– Growth levels withdrawn but available at higher levels for prevention.
- Swine – Growth levels withdrawn but available at higher levels for prevention.
- Cattle – Growth withdrawn but complete overlap with prevention.

NOT RANKED UNDER FDA GUIDANCE #152 OR BY WHO

Pleuromutilin (Approved for growth and prevention in swine). Human drug retapamulin (Albatax approved for topical use in 2007)

Summary –Only impact would be that higher dose would need to be used in swine.

- Poultry – No approvals, so no effect.
- Swine – Growth levels withdrawn but available at higher levels for prevention.
- Cattle – No approvals, so no effect

CASES WHERE NO PREVENTION APPROVAL AVAILABLE

No sulfonamide approval in feed for cattle.

No penicillin approval in feed for poultry.

No streptogramin approval in feed for turkeys.