

# Testing of Medicated Feeds & Premixes using Activity Based Tests

How can we substitute these

# Compounds of Interest w/ Activity Based Methods

Bacitracin

Chlortetracycline

Erythromycin

Hygromycin

Lasalocid #\*

Lincomycin

Monensin #\*

Neomycin

Novobiocin

Nystatin

Oxytetracycline#\*

Penicillin

Spectinomycin

Streptomycin

Tylosin

Virginiamycin

# AAFCO PT Program Participation

Over 2017 and 2018 max # of labs reporting data based on activity

Bacitracin (4)

Chlortetracycline (6)

Oxytetracycline (4)

Monensin (2)

Tylosin (1)

# Assays under Consideration

- Zone Inhibition assays
- Cylinder plate assay
- Turbidometric assays

# Challenges with Current Methods

- Limited specificity
- Interferences
- Lots of variables
- Difficult to master
- Not well accepted globally

# Chromatography Based Methods

## Challenges

- Multicomponent drugs
- In some drugs the components have a synergetic relationship
- Difficult to obtain sufficient amounts of pure components to detn their biological activity

# Legislative Hurdles

- Precision expectations
- Equivalency expectations
- Risks associated with the opening of Masterfiles
- FDA acceptance
- Drug Sponsor acceptance

# Approaches:

- Drug Sponsor develops and carries the new method through FDA approval
- 3<sup>rd</sup> Party develops method, takes it through collab study, publishes in JAOAC and submits method through AAFCO Masterfile w/ Drug Sponsor's blessing