

**Abstract**

**“ANTIBIOTIC USE IN FERMENTATION & TESTING FOR RESIDUE LEVELS IN DISTILLERS GRAINS”**

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Antibiotics are commonly used to enhance technical efficiency in the fermentative production of alcohol. Co-products, particularly “distiller’s grains”, arising from fermentative alcohol production contain many of the non-starch nutrients of the original grain substrate and, therefore, are useful feed ingredients for use in animal nutrition. Most major North American livestock industries currently use distiller’s grains as a component of their animal diets.

The US Food and Drug Administration (FDA) has a legal oversight role for food safety including, the safety of animal feeds. The FDA must be satisfied that all constituents used as animal feedstuffs are suitable for that purpose, and will not be harmful to the target animals, the environment or the safety/wholesomeness of the final produce entering the human food supply. For the past couple of years the FDA has engaged in an industry awareness campaign regarding the Agency’s regulatory oversight of fermentation additives used by the ethanol / distiller’s grains industry. To date Lactrol (virginiamycin), is the only antimicrobial compound the FDA has reviewed and found acceptable for use ethanol production and use of the resulting distiller’s grains in the animal feeding industry.

Testing for potential residues of ethanol performance additives in distiller’s grains may be part of an overall compliance management program. Analytical results and established regulatory limits are inexorably related to the test method employed to establish those results and limits. It is therefore essential that analytical methods employed for compliance or quality assurance are suitable for the intended testing. In particular, methods used must measure the established analytical target(s) and do so with a suitable level of accuracy and robustness. The FDA product review process includes an assessment of the method to be used for analysis. Variances between methods and/or limits established by the regulator, and analytical results arising from product testing, may lead to unusable results and/or inappropriate interpretation of laboratory reports.

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**HANDOUTS WERE NOT AVAILABLE IN TIME TO INCLUDE.**

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