On the Question of Antibiotic Use and Resistance…
A recent symposium sponsored by the National Institute for Animal Agriculture, entitled “Bridging the Gap between Animal Health and Human Health”, identified several important points on this important debate:
1. If you think you understand antimicrobial resistance, it hasn’t been explained properly…
2. The science behind the emergence, amplification, persistence and transfer of antibiotic resistance is very complex and open to misinterpretation and misuse.
3. Antimicrobial resistance is a naturally occurring phenomenon that is present with and without the use of antimicrobials; but anytime an antibiotic enters the ecosystem, it contributes to the presence of antibiotic resistance.
4. Antibiotic resistance is not just transferred from animals to humans; resistance is also transferred from humans to animals.
5. Evaluating antimicrobial resistance involves balancing risks versus benefits while constantly recognizing the importance of maintaining an efficacious arsenal of human antibiotics.
Decisions and policies should be based on science, but who decides what constitutes evidence when making decisions and policies? Banning the use of prophylactic antibiotics, as it was done in Denmark (1999) led to increase in animal morbidity and mortality, increased therapeutic antibiotic use (i.e., human class), and did not improve public health by reducing Salmonella and Campylobacter resistance levels in human infections. More information at: www.animalagriculture.org

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