

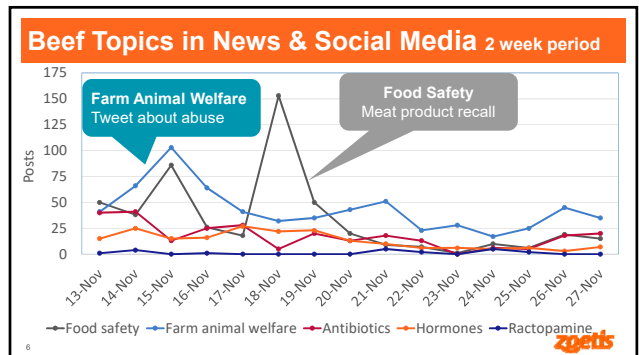
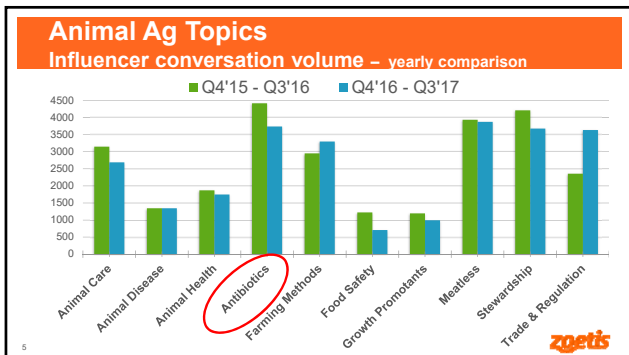
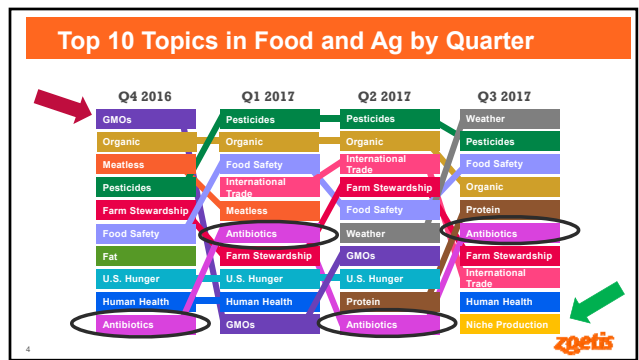
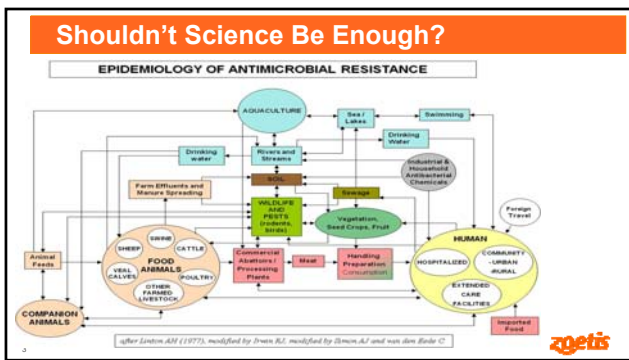
Antibiotic Stewardship and Consumer Awareness

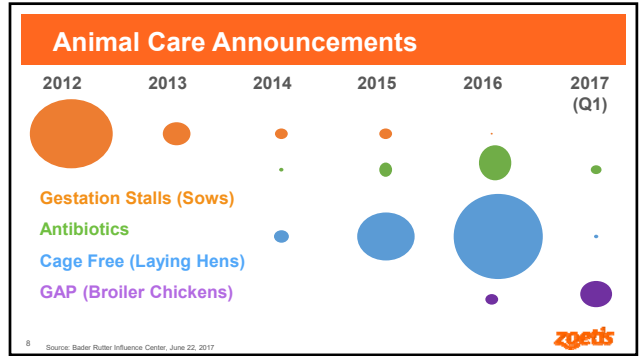
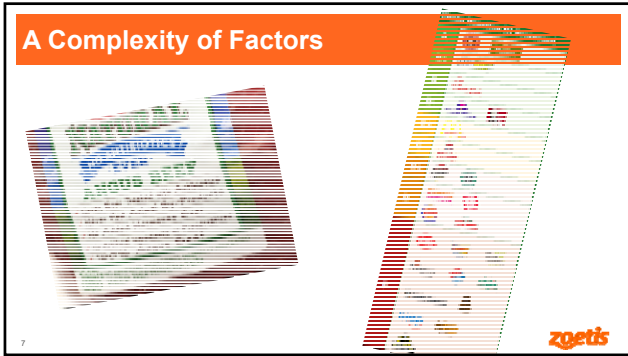
Christi Calhoun, Ph.D.
Head, Food Chain Relations

December 5, 2017

zoetis

Why all the buzz about antibiotics?





Many Tools to Keep ALL Animals Healthy


	In Livestock	In Companion Animals
	<ul style="list-style-type: none"> Balanced nutrition Clean environment Shelter from elements Husbandry Vaccines Coccidiostats (ionophores) Parasiticides Probiotics 	<ul style="list-style-type: none"> Balanced nutrition Clean environment Shelter from elements Husbandry Preventive wellness care Vaccines Parasiticides Probiotics

zoetis

Roles of Vaccines and Antibiotics

Vaccines help to prevent disease


- Based on an immune response (*antibodies formed*)
- Enhances the host ability to prevent disease



virus

Antibiotics work to treat and control disease

- Slows growth or kills bacteria
- Does not require an immune system



bacteria

11 **zoetis**

FDA'S Categories of Use for Medicine (after 2016)

Disease Treatment:	<ul style="list-style-type: none"> Reduction of clinical signs associated with disease
Disease Control:	<ul style="list-style-type: none"> Some proportion of animals in a group exhibit clinical signs of disease
Disease Prevention:	<ul style="list-style-type: none"> No clinical signs of disease, but based on herd history, disease likely to occur if antibiotic is not administered
Growth Promotion/ Feed Efficiency:	<ul style="list-style-type: none"> Medically important: No longer allowed after rule implementation Non-medically important: Existing growth promotion and feed efficiency claims continue

12 **zoetis**

