



GLOBAL ROUNDTABLE FOR SUSTAINABLE BEEF[®]

GRSB Antimicrobial Statement FAQs

Question:

Who is GRSB?

Answer:

The Global Roundtable for Sustainable Beef (GRSB) is a multi-stakeholder initiative focused on continuous improvement in sustainability of the global beef value chain.

To us, sustainability prioritizes the planet (natural resources), people, and progress. Our principles cover animal health and wellbeing, people and the community, natural resources and efficiency and innovation. These are the areas in which we and our members are working to advance continuous improvement. No matter where beef is raised across the world, we believe improvements can be made through collaboration focusing on sharing knowledge, leadership, science, and engaging with all stakeholders throughout the beef supply chain. Visit grsbeef.org to learn more.

Question:

Why has GRSB decided to release an Statement on Antimicrobial Stewardship?

Answer:

GRSB's members recognize the urgency with which action against the development of Antimicrobial Resistance (AMR) needs to be taken. While GRSB itself has no power to enforce given practices, our membership reached consensus on responsible stewardship and wanted to make it clear that this statement reflects what GRSB membership believes are approaches to manage antimicrobials responsibly.



Antimicrobial resistance is a major global threat to human and animal health, causing 700,000 human deaths each year (UK's O'Neill Commission), just 89 countries report having a system in place to collect data on the use of antimicrobial agents in animals (OIE, 2015), and roughly 40 percent of countries report they have yet to develop national action plans. Add the fact that by 2050 it's estimated the impact of antimicrobial resistance on World GDP will be \$100.2 Trillion in total losses, and it becomes clear there is a massive need and opportunity for improvement in responsible antibiotic use across the globe. It's GRSB's intention to take actions like issuing this statement which can help to support a future where antibiotics remain effective in managing human and animal health.

This statement provides a framework for places across the world who have no formal structures in place and a guideline for organizations affiliated with GRSB. It's a foundation in which to build from, no matter the type of production system, location or local context.

Members of the Global Roundtable want to avoid situations in which people or animals would be without treatment because infections have become resistant to the drugs currently available and we believe simple actions can yield powerful results.



Question:

Why is this statement being released right now? (What's the story behind the timing?)

Answer:

GRSB released its Principles & Criteria for Defining Global Sustainable Beef [https://grsbeef.org/resources/Pictures/2017%20Template%20Graphics/grsb_principles_and_criteria_for_global_sustainable_beef_2016_logo%20\(6\).pdf](https://grsbeef.org/resources/Pictures/2017%20Template%20Graphics/grsb_principles_and_criteria_for_global_sustainable_beef_2016_logo%20(6).pdf) in 2014, which were deliberately designed to be technology neutral and which did not, therefore, directly address antimicrobial stewardship. GRSB's members recognize, however, that proper antimicrobial stewardship is a vital element of sustainable beef production and indeed all sustainable animal agriculture. We worked with our members to achieve a consensus view of antimicrobial stewardship in the beef value chain, and this view has now been translated into our Statement on Antimicrobial Stewardship.

Question:

How was the Statement on Antimicrobial Stewardship created?

Answer:

The GRSB collaborated with our stakeholders to develop the statement. Once it was agreed to release a Stewardship statement, we worked collaboratively with members and specialists over a period of months to produce the document presented. After two rounds of membership consultation, the members voted to approve and release the statement.

Question:

Does GRSB define antimicrobial stewardship?

Answer:

The statement sets out the areas which we agree are relevant to responsible antimicrobial stewardship in beef production, including the importance of creating comprehensive herd health plans—created in collaboration by veterinary professionals and beef producers, ensuring those who administer antibiotics are properly trained to follow label instructions when using all antimicrobials, implementing vaccination programs to prevent common infectious diseases, as well as procedures that help to ensure compliance with prescription / labeling (selecting the right drug for the indication, administering correct doses for the right length of time, recording keeping and tracking withdrawals, etc.)



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Question:

Does GRSB think antimicrobials should be used in modern beef production?

Answer:

Yes. There are many occasions in which it is important to be able to use antibiotics for animal health treatment. Animal health and wellbeing is one of GRSB's core principles, and without the use of antimicrobials, animal health and wellbeing would be compromised and lead to unnecessary suffering.

Question:

Does GRSB think beef producers are currently doing something wrong with how antimicrobials are being used?

Answer:

Whenever antimicrobials are used, they are selecting for resistant bacteria. This is equally true of human and companion animal uses as it is in livestock. We all have a responsibility to maintain the effectiveness of these drugs, which have revolutionized human and animal health. The fact that there are countries with limited or no control on the use of antimicrobials is certainly of concern, as indiscriminate use will select for resistant bacteria faster than properly targeted and effective use.

Producers benefit from the most targeted and efficient use of antimicrobials – with healthier animals, cost effective treatments, and lower likelihood of resistant bacteria in the future. So, while we are not of the opinion that producers are deliberately misusing antimicrobials (it is not in their best interests to do so), it is important to keep responsible stewardship in mind at all times. Continuous improvement should be a goal for beef producers, no matter the size, scope or location of an operation.

It's also important to consider public perception of antibiotic use in modern agriculture. Consumer research in many countries indicates a growing population thinks modern beef production supports the misuse of antibiotics. By issuing this statement, we are focusing attention on what the beef community DOES actually support in terms of antibiotic use. It helps to further demonstrate to consumers that the beef industry does share their values in producing safe, nutritious food while showing them what stewardship looks like across the globe. It supports a shift in the narrative to show that the cattle community cares about responsible antimicrobial use.



Question:

Why does the Antimicrobial Statement provide broad guidance vs. specific procedures and practices designed to combat antimicrobial resistance?

Answer:

This is a global statement, covering diverse systems and production environments. Some countries, to which this applies, have limited veterinary services and limited or no antimicrobial policies in place. Therefore, it should be regarded as a baseline that has been agreed upon by our global membership, and may be taken and adapted to support a regional or country specific environment.

It's also important to note that the GRSB is not an organization which neither prescribes nor mandates specific practices. Modern beef production is diverse; and each region has its own set of complexities, making a "one-size" fits all approach unrealistic and undesirable. The way the Global Roundtable has been structured is to encourage participation in national roundtables and initiatives, giving the widest possible access for producers to participate in formulating sustainable management practices that fit their production systems and environment.

Question:

Why does the statement address the use of different classes of antibiotics? Why is it important to distinguish between what's medically important for humans and what's not?

Answer:

Where antimicrobials are of critical importance to human health, we need to be particularly vigilant against the development of resistant microbes, because this classification means that a specific drug is one of a very small number effective for the treatment of certain human bacterial infections.

If resistance develops and is found in those human infections, we may no longer have a means to treat them, causing serious human health problems and mortality. Similarly, there are classes of antimicrobials of critical importance to animal health.



Medically important antimicrobials are categorized according to specified criteria as either "Critically Important," "Highly Important," or "Important" for human medicine and 27 different antimicrobial classes are used in animals. The Global Roundtable's goal is to highlight the importance of using animal class antibiotics as a first choice, and only selecting the lowest category of shared (human and animal) medical class antibiotics when animal class antibiotics are not viable options for treatment.

Examples of Critically Important Antimicrobials from World Health Organization:

Antimicrobial class	Example of drugs
CRITICALLY IMPORTANT ANTIMICROBIALS	
Aminoglycosides	gentamicin
Ansamycins	rifampicin
Carbapenems and other penems	meropenem
Cephalosporins (3rd, 4th, and 5th generation)	ceftriaxone, cefepime, ceftaroline
Glycopeptides	vancomycin
Glycylcyclines	tigecycline
Lipopeptides	daptomycin
Macrolides and ketolides	erythromycin, telithromycin
Monobactams	aztreonam
Oxazolidinones	linezolid
Penicillins (natural, aminopenicillins, and antipseudomonal)	ampicillin
Phosphonic acid derivatives	fosfomycin
Polymyxins	colistin
Quinolones	ciprofloxacin
Drugs used solely to treat tuberculosis or other mycobacterial diseases	isoniazid

For more information about classes of antibiotics visit: <http://apps.who.int/iris/bitstream/handle/10665/255027/9789241512220-eng.pdf;jsessionid=5FA8FA867607468AB554155753F13025?sequence=1>

Question:

What will happen next?

Answer:

National roundtables and initiatives are encouraged to develop further specific guidance as required. Many countries already have a legislative framework that may exceed parts or all of this statement in which case they can refer directly to national requirements. Other countries, where legislation is not developed may choose to use the statement as the basis for a local implementation framework to support public and animal health.

Question:

How will you measure performance and what is your enforcement mechanism? If there is not one, or if it cannot be measured then what is the point of having a statement?

Answer:

Performance will be measured by the shifting global trends of antimicrobial resistance, using established reporting systems currently available through bodies such as WHO, FAO, and OIE. GRSB recognizes a multi-pronged approach is needed to drive lasting change, and it will not happen immediately. This statement is one strategy among many that will be needed to impact the critical issues of antimicrobial resistance. The point of having a statement like this is to create a baseline from which the global beef value chain can come together. Issues this big require systematic, incremental shifts, and this statement creates further strength to the work that is being done by our members and sustainability stakeholders across the world.



Question:

The Antimicrobial Statement refers to beef producers and veterinarians developing herd health plans. What does a herd health plan entail?

Answer:

A herd health plan can be structured many different ways, and typically includes an annual protocol of what beef producers and veterinarians will do to ensure cattle herds are protected from the threats of common diseases, and steps to take if they do get sick to manage their care and return to health.

The health plan outlines specific herd surveillance and health monitoring practices, vaccination programs, nutrition programs, and other preventative measures taking account of the environment cattle are kept in. It will also cover general drugs that are appropriate for use depending on the potential sicknesses for the situation, directives to follow drug label instructions and drug tracking procedures, withdrawal protocols, and environmental management expectations. Each plan is unique to the operation, region, resources, etc, but the goal is to support the refinement of disease prevention, health management and treatment. Plans are reviewed and updated regularly and the collaboration between the beef producer and veterinarian is vital to its overall success.

Question:

What does “effective disease control” actually mean? Does this mean every animal gets vaccinated? How is this determined?

Answer:

Effective disease control starts with prevention. Vaccinations are one important weapon in the arsenal against diseases, but there are not vaccines for all bacteriological diseases.

Management is a key aspect of disease control-avoiding situations in which bacterial infections are likely to become a problem. General health, parasite control, nutrition, genetics, and the environment where beef cattle herds are raised all play roles in immunity and need to be considered as part of control strategies.



Subsequent to prevention and ensuring that cattle are fit enough to fight infection, it is also important to manage cattle that are infected in a way that minimizes the stress on them, and the unnecessary exposure of other cattle to infection. Efforts to treat cattle should lead to their rapid recovery and each beef producer has a unique set of circumstances causing management of infected cattle to vary. That's why it's important for each beef producer to have their own unique herd health plans developed with their veterinarian.

Question:

What is an ionophore and how are they linked to antibiotics?

Answer:

Ionophores are a class of antimicrobials that are not used in human medicine. The Veterinary Medicine (Eleventh Edition) 2017, provides the following information:

Ionophores are classified as an antibiotic, but they are not therapeutic antibiotics (i.e. used to treat bacterial infections). Antibiotic resistance is an increasing concern in public discourse. However, the increase in antibiotic-resistant bacteria as a result of ionophore use is not well supported for a number of reasons: (1) ionophores have never been (nor are likely to be) used as antimicrobials for humans; (2) ionophores have a very different mode of action from therapeutic antibiotics; (3) ionophore resistance in bacteria seems to be an adaptation rather than a mutation or acquisition of foreign genes; (4) ionophores can translocate across cell membranes of animals, which limits their use as therapeutic antibiotics; and (5) ionophore resistance in targeted bacteria shows complexity and a high degree of specificity.

In modern beef production, depending on the country, from a regulatory perspective ionophores can be used as a part of a herd health plan as a proactive approach to maintaining herd health.

Question:

What impact with this statement have on the future use of Antimicrobials in the beef industry?

Answer:

GRSB and our members intention in releasing this statement is that use of antimicrobials in the beef industry will be better targeted to specific needs in the future and that alternative strategies will be adopted, first to prevent disease, and secondly to ensure that treatments are well targeted to minimize development of AMR. Reduction in the emergence and spread of AMR is always the end goal of any antimicrobial stewardship approach.





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Question:

Where can more information about antimicrobial resistance be found?

Answer:

There are several resources to learn more, including these websites:

The Food and Agriculture Organization (FAO):

- Antimicrobial Resistance: <http://www.fao.org/antimicrobial-resistance/en/>
- Monitoring Global Progress on Addressing Antimicrobial resistance: <http://www.fao.org/3/ca0486en/CA0486EN.pdf>
- FAO YouTube: <https://www.youtube.com/user/FAOoftheUN>
- Antimicrobial Resistance Infographic: <http://www.fao.org/3/a-i8184e.pdf>

OIE-World Organization for Animal Health

http://www.oie.int/fileadmin/Home/eng/Media_Center/docs/pdf/PortailAMR/EN_OIE-AMRstrategy.pdf

WHO: World Health Organization ~ Critical Important Antimicrobials for Human Medicine:

<http://apps.who.int/iris/bitstream/handle/10665/255027/9789241512220-eng.pdf;jsessionid=5FA8FA867607468AB554155753F13025?sequence=1>

Canadian Beef Cattle Research Council: Antimicrobial Resistance:

<http://www.beefresearch.ca/research-topic.cfm/antimicrobial-resistance-11>

Centers for Disease Control: Antibiotic Resistance

<https://www.cdc.gov/drugresistance/>

United States Beef Quality Assurance Program: Antibiotic Stewardship for Beef Producers:

https://www.bqa.org/Media/BQA/Docs/bqa_antibiotics_final.pdf

United States Farmers and Ranchers Alliance: Antibiotics: An Important Tool in a Very Big Box:

<http://www.fooddialogues.com/article/antibiotics-an-important-tool-in-a-very-big-tool-box/>



The GRSB Antimicrobial Statement:

Is...	Is NOT...
IS a guideline	Is not a prescription
IS a tool that can be used to support herd health and welfare	Is not a detailed national action plan
IS a tool that recognizes importance of economic viability for the beef value chain	Is not an attempt to “greenwash”
IS a tool that supports public health via responsible antibiotic use	Is not a replacement for a strong relationship between a producer and veterinarian
IS a tool that benefits consumers	Is not a regulatory rule
IS a tool that helps to minimize the development of antimicrobial resistance	Is not a silver bullet

