

May 13, 2021

Dr. Melissa R. Bailey
Agricultural Marketing Service
U.S. Department of Agriculture
Room 2055-S, STOP 0201
1400 Independence Avenue SW
Washington, DC 20250-0201

RE: Docket No. AMS-TM-21-0034: Supply Chains for the Production of Agricultural Commodities and Food Products

Dear Dr. Bailey:

The Pew Charitable Trusts (Pew) appreciates the opportunity to comment on the U.S. Department of Agriculture’s (USDA, the Department) request for information regarding agricultural and food products supply chain resilience and durability subsequent to President Biden’s Executive Order 14017, “America’s Supply Chains.” Pew applies a rigorous, analytical approach to improve public policy, inform the public, and stimulate civic life. Through our Antibiotic Resistance Project, we seek to reduce health risks from the emergence of antibiotic resistance and spur the development of new antibiotics and non-traditional therapies.

Antibiotic resistance is a global health risk that threatens to undermine the practice of modern medicine, and antibiotic use in any setting – including in food-producing animals – contributes to the spread of drug-resistant pathogens. In the U.S. alone, drug-resistant infections account for at least 2.8 million illnesses, 35,000 deaths, and \$20 billion in added health care costs annually. Good antibiotic stewardship is critical to containing this threat and ensuring that lifesaving antibiotics are available to treat disease for many years to come. In animal agriculture, this means reducing the need for antibiotics in the first place as well as ensuring high quality stewardship of antibiotics in cases where they are needed. Improved data collection and monitoring capacity on antibiotic use and resistance is also required to provide scientists and policymakers with information needed to address antibiotic resistance in agriculture contexts.

Pew specifically wishes to provide comment on the following area requested by USDA:

(ii) other essential goods and materials underlying agricultural and food product supply chains, including digital products, and infrastructure:

Antibiotics are important tools for treating and curing bacterial infections in food-producing animals. However, research shows they are often used unnecessarily,¹ and their use may not align with the U.S. Food and Drug Administration’s (FDA) definition of judicious antibiotic

¹ Hope, Katie et al. *Zoonoses and Public Health*. “Antimicrobial use in 22 U.S. beef feedyards: 2016-2017.” 17 November 2020. <https://doi.org/10.1111/zph.12775>

use.² Improved animal management, biosecurity, and husbandry practices, along with the development of effective antibiotic alternatives, are important to raise healthier animals, reduce the need for antibiotics, and protect public health.

USDA should continue to strengthen existing departmental and interagency One Health programs and research activities that aim to address antibiotic resistance through improved data collection, monitoring, reporting, animal tracking, and research concentrated on improved animal management practices and antibiotic alternatives that prevent the need to use antibiotics. Pew suggests the Department advance the following activities in alignment with this goal:

1) Bolster data collection programs and provide integrated and timely reports on antibiotic use and resistance.

While useful for understanding broad trends in animal husbandry and farm management practices, the data provided through the National Animal Health Monitoring System (NAHMS) are incomplete, infrequent, and provide only a limited picture of antibiotic use and resistance on farms. Scientists, policymakers, and veterinarians need more continuous collection and reporting of real-time data on antibiotic use and resistance to track and prevent disease outbreaks in both animal and human populations, deploy targeted interventions that reduce the need for antibiotics, and inform changes to antibiotic policies and regulations, as necessary. USDA's Animal and Plant Health Inspection Service should work with the National Agricultural Statistics Service and other offices as needed to make the NAHMS program more comprehensive and effective by developing appropriate incentives to stimulate producer participation in surveys and by expanding the collection of key data elements and microbiological samples relevant to antibiotic use and resistance that remain critical to public health monitoring and disease surveillance.

USDA should also continue to work collaboratively with FDA, the U.S. Centers for Disease Control and Prevention, and state and local departments of agriculture and public health to advance the National Antimicrobial Resistance Monitoring System and to report data regularly. Improved comprehensive data reporting on antibiotic use and resistance, including on-farm data collection and sampling, will help prepare the U.S. public health system and food supply to be more resilient in the face of future threats.

2) Pursue partnerships that allow the Department to deploy interoperable, sustainable technologies that universally track animals entering the production chain.

Pew supports the goals that USDA outlined in 2018³ to increase animal traceability throughout the supply chain, and we encourage the Department to aggressively implement and adopt a

² U.S. Food and Drug Administration. Center for Veterinary Medicine [Guidance for Industry #213](#): New Animal Drugs and New Animal Drug Combination Products Administered in or on Medicated Feed or Drinking Water of Food-Producing Animals: Recommendations for Drug Sponsors for Voluntarily Aligning Product Use Conditions with GFI #209. December 2013.

³ Animal and Plant Health Inspection Service, U.S. Department of Agriculture. "[Animal Disease Traceability](#)." Accessed 4 May 2021.

universal animal tracking system that will allow sick and exposed livestock to be traced throughout their lifespan, and that continuously captures and reports data linking animal health outcomes with antibiotic use in the associated herd, flock, or flow. A more transparent and accountable toolkit for monitoring commodity animals will better prepare the food system to detect and rapidly address disease outbreaks. Similarly, enhancing animal traceability with electronic systems capable of animal health record-keeping and data-reporting will allow the food supply chain, public health and agricultural experts, veterinarians, and policymakers to react quickly to prevent disease spread and contamination of the food supply, making the food system less susceptible to external shocks.

3) Conduct research to contribute to the scientific community’s understanding of antibiotic resistance in animal agriculture and develop antibiotic alternatives to reduce the unnecessary use of antibiotics on farms.

USDA’s Agricultural Research Service (ARS) and the National Institute of Food and Agriculture (NIFA) are valuable components of the U.S. agricultural research infrastructure that help enhance our understanding of animal health, disease, and management to improve the food system and U.S. agricultural practice. They should conduct more research on antibiotic alternatives – such as vaccines – as well as on management and husbandry practices that can improve animal health and, in turn, reduce the use of antibiotics and curb resistance.

Finally, both USDA’s Cooperative Extension Service and its National Animal Health Laboratory Network complement and extend the research activities supported by ARS and NIFA and often provide a vital connective link between USDA’s basic and applied research initiatives and the grower community. We encourage USDA to ensure that these agencies have the resources and personnel needed to help growers and veterinarians implement effective antibiotic stewardship practices on the farm.

Pew appreciates the opportunity to comment on this important issue and looks forward to continuing to work with USDA to combat antibiotic resistance while strengthening the U.S. food supply chain and improving public health.

Sincerely,



David Hyun, MD
Director, Antibiotic Resistance Project
The Pew Charitable Trusts