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Agency Update: USDA Releases Science Blueprint 2020-2025

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On February 6, the Department of Agriculture (USDA) published a new strategic document to steer future science activities for the agency through 2025. The *USDA Science Blueprint* is intended to provide direction and focus as the agency strives for a more coordinated scientific enterprise. A primary goal of the document is the "unification of agency plans into the Department's plans" to better centralize strategic planning at all levels of USDA. Celebrating USDA's history of "moving science into practice," the *Blueprint* seeks to enhance the development and implementation of science-driven innovations by not only steering research priorities toward nationally significant targets but also remedying "bottlenecks" in the tech transfer process. Notably, the research priorities include an explicit emphasis on sustainability and climate adaption, including resilience, pest management, zoonotic and vector-borne disease, and conservation.

In addition to the agencies in the Research, Education, and Economics (REE) mission area, which include the National Institute of Food and Agriculture (NIFA), National Agricultural Statistics Service (NASS), Economic Research Service (ERS), and the Agricultural Research Service (ARS), the *Blueprint* also includes activities in the Forest Service, Food Safety and Inspection Service (FSIS), Natural Resources Conservation Service (NRCS), Food and Nutrition Service (FNS), and the Animal and Plant Health Inspection Service (APHIS). The *Blueprint* prioritizes the following five themes:

- Sustainable Ag Intensification: "Develop crop production systems and alternative strategies to intensify plant and forest production with continuous improvements and adoption of new technology and innovative practices while reducing environmental impacts."
- Ag Climate Adaptation: "Develop interdisciplinary integrative systems approaches to address environmental and management challenges that positively impact productivity and resilience."
- Food and Nutrition Translation: "Generate fundamental knowledge and tools that later be applied to improve food safety and food security, including One Health research such as antimicrobial resistance."
- Value-Added Innovations: "Strengthen food, agricultural, and forest production, processing, manufacturing, utilization, and marketing through new technologies, innovation, and data analysis to create jobs and economic opportunities in rural areas."
- Ag Science Policy Leadership: "Encourage a global conversation and facilitate such discussion within decision-making bodies about literacy in agriculture, food, forestry, health, and science."

The *Blueprint* highlights several cross-cutting "movements in science and agriculture" that will be central foci of investments and coordination efforts. These movements include open data, big data, artificial intelligence, gene editing, microbiome sciences, and technology, automation, and remote sensing.

While each thematic area in the *Science Blueprint* outlines broad objectives, strategies, and evidence-building activities for identified sub-themes, the document stops short of identifying future programmatic investments or clear actions for the agency. However, these themes could preview next week's budget request for USDA REE.

Sources and Additional Information:

- A press release for the *USDA Science Blueprint* can be found at https://www.usda.gov/media/press-releases/2020/02/06/usda-casts-vision-scientific-initiatives-through-2025.
- The *USDA Science Blueprint* can be found at https://www.usda.gov/sites/default/files/documents/usda-science-blueprint.pdf.