Public Policy in Health, Energy, and Environment
An Example: Agriculture

Challenges

Solutions

Policy
Agriculture’s Future: Greater and Diverse Production

Healthy Food to Feed Global Population
New types of crops that provide complete nutrition

New Sources of Renewable Energy
New sources of renewable energy

Sustainable, Lower Environmental Footprint
Challenge of Climate Change

Extreme Weather Events: July 2010 Anomaly

[Map showing temperature anomalies in Europe during July 2010]
Changes in the distribution of pathogens
President’s Council of Advisors on Science and Technology

Agricultural Preparedness & the United States Agricultural Research Enterprise
Overview of PCAST

• Beginning in 1933 with President Franklin D. Roosevelt's Science Advisory Board, each President has established an advisory committee of scientists, engineers, and health professionals.

• Today’s PCAST is an advisory group of the Nation’s leading scientists and engineers who directly advise the President and the Executive Office of the President.

• PCAST makes policy recommendations in the many areas where understanding of science, technology, and innovation is key to strengthening our economy and forming policy that works for the American people.

• PCAST is administered by the White House Office of Science and Technology Policy (OSTP).

• PCAST meets six times per year. PCAST has met with the President seven times
Is the current agricultural research enterprise *prepared* for future challenges?

Are new and different types of investments needed?
Competitive funding at USDA is 15% of the R&D portfolio
Is the current agricultural research enterprise *prepared* for future challenges?  No!

Are new and different types of investments needed?  Yes
An enhanced Innovation Ecosystem for Agricultural Research is needed

• The Ag S&T workforce must be strengthened from high school to post-docs
• The Ag Research infrastructure should be built on specialization and strategic planning
• A competitively funded, government-led, endeavor is needed
• Technology Development and Deployment must be emphasized and augmented
Research: Recommendation 1

PCAST recommends that the focus of USDA research funding shift towards competitive grants.

PCAST recommends an increase in funding for basic science relevant to agriculture.
Workforce: Recommendation 2

PCAST recommends that the USDA, in collaboration with NSF, establish a national competitive fellowship program for graduate students and post-doctoral researchers.
PCAST recommends that the President request an internal review of Federal regulatory policy for agriculture to promote regulatory clarity.
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