

FACT SHEET

**ROADMAP FOR SCIENCE IN
DECISIONMAKING**

HIGHLIGHTS

The US Department of Agriculture (USDA) is responsible for shaping myriad decisions about the food that farmers grow and consumers eat. The Union of Concerned Scientists has compiled actions the USDA should take in order to rebuild badly damaged scientific capacity and improve decisionmaking and scientific integrity at the agency, including:

- *Returning science-program leadership positions to Washington, DC, where the people who fill them can best interact with and inform policymakers in accordance with the USDA mission.*
- *Ensuring that scientists can conduct and share research in a timely manner and without political interference.*
- *Maintaining and safeguarding the USDA's data repositories and information systems, and ensuring they are fully utilized.*
- *Remedying instances in which science has been sidelined in rulemaking and other decisions.*

Rebuilding Science and Scientific Integrity at the US Department of Agriculture

Recommendations for 2021 and Beyond

The US Department of Agriculture (USDA)—with 29 agencies and offices and nearly 100,000 employees, including thousands of scientists—touches all our lives every day. USDA policies and programs affect farmers' decisions about what to grow and how to grow it; the infrastructure and services available in rural communities; the quality of the nation's soil and water resources; and the healthfulness, price, and selection of food offered to consumers everywhere (USDA 2019a; USDA 2019b; USDA 1995; USDA n.d.c). To accomplish all that, the USDA invests significantly in science—some \$3 billion annually for agricultural and food research carried out within the department and through grants to universities and other institutions—and it has a stated commitment to using the best available science in its decisionmaking (USDA n.d.b).

Yet the USDA's scientific integrity, science-based policymaking, and research capacity have been deeply damaged over the last four years. Scientists and their work have been suppressed for political reasons, a sweeping science plan to shape the department's response to climate change has been buried, and a politically motivated office relocation has gutted two leading USDA research agencies (UCS 2019a; UCS 2019b; USDA 2018a). Even before some of the most grievous violations of scientific integrity at the USDA, a 2018 survey of federal scientists, conducted by the Union of Concerned Scientists and Iowa State University, revealed workforce reductions, restrictions on the communication of science to the public, and a shift of resources away from offices carrying out work viewed as politically contentious (UCS 2018a).

In the wake of these attacks, the USDA must take major steps to rebuild its scientific capacity and leadership, safeguard scientific processes from political interference, empower and protect its scientists, and restore public trust. Failure to do so risks seriously eroding the research base upon which our nation's food and agriculture system depends.



USDA science is critical to fulfilling the department's mission on behalf of farmers, consumers, and rural communities. Here, a scientist from the USDA's Agriculture Research Service works with a farmer and local extension agent to improve wheat growing methods and conserve soil moisture.

Promoting Science-Based Decisionmaking

Good decisionmaking at the USDA depends on scientists both within and outside of the department. Its Research, Education and Economics (REE) mission area encompasses four agencies that undertake such activities: the Agricultural Research Service, the National Agricultural Statistics Service, and the Economic Research Service (ERS) are in-house research bodies; while the National Institute of Food and Agriculture (NIFA) administers federal funding to universities and other outside organizations to study food and agriculture issues that affect people’s daily lives and the nation’s future (USDA n.d.e). For the entirety of the Trump administration’s term, the position of undersecretary for REE—which would be filled by a person who also serves as the department’s chief scientist—has been vacant (*Washington Post* n.d.).

At the same time, Secretary of Agriculture Sonny Perdue and other political officials have suppressed, ignored, and undermined the work of REE scientists in various ways (Stillerman 2018). Perhaps most egregiously, Secretary Perdue used a relocation of two REE research agencies—the ERS and NIFA—to reduce their staff size and capacity and sideline research the administration found inconvenient (USDA 2018b; Guarino 2019). As a result of the lengthy and chaotic relocation process, the ERS and NIFA moved from Washington, DC, to Kansas City, Missouri, without most of their scientists or support staff. To date, 75 percent of the employees of the relocated agencies have left their posts—a severe “brain drain” that has delayed the completion of dozens of studies on a range of issues, including the opioid epidemic’s impacts on rural communities, veterans’ food security, and international trade markets (Guarino 2019). The disruptions also have delayed grants from reaching university researchers studying topics that help fruit and vegetable growers, organic producers, and beginning and socially disadvantaged farmers, along with researchers studying farmer suicide (US Senate 2019; Chadde 2020).

To repair this damage, rebuild scientific capacity, return the USDA to science-based decisionmaking, and prepare the department to meet the challenges ahead—for farmers, rural communities, and consumers—we recommend the following actions.

Political officials have suppressed, ignored, and undermined USDA research in various ways.

To rebuild REE’s world-class research capacity and ensure that the USDA and other stakeholders have the expertise they need, the department must take these steps:

- Return science-program leadership positions to Washington, DC, where the people who fill them can best interact with and inform policymakers in accordance with the USDA mission.
- Work with the Office of Personnel Management and the USDA’s Human Resources department to improve recruitment and screening for appropriately skilled, career-level scientists to fill vacant positions, and prioritize the training and mentoring of new scientific hires.
- Update scientific position descriptions to ensure that the department can meet the nation’s current research needs.
- Establish “guardrails” to protect qualified scientists against retaliatory reassignments to positions that do not fit their expertise.
- Require that management staff who oversee scientists receive science-literacy training to ensure they understand the roles and methods of the department’s scientists and the importance of scientific integrity.

The department should remedy instances in which science has been sidelined in the development of USDA regulations and other policies, including the following:

- Release and implement the USDA’s “Climate Resilience Science Plan,” intended to guide the department’s science-based response to climate change (USDA 2017). A Trump administration political official suppressed the plan, which had been finalized early in 2017 (Evich 2019b).
- Rescind rules that have eroded evidence-based nutrition standards for school meals programs, including “Child Nutrition Programs: Flexibilities for Milk, Whole Grains, and Sodium Requirements” (FNS 2017).
- Rescind rules that would restrict eligibility for the Supplemental Nutrition Assistance Program (SNAP). These restrictions contradict copious evidence of SNAP’s effectiveness and put hundreds of thousands of unemployed and underemployed adults at greater risk of food insecurity and poor health. Such rules include “Inadmissibility on Public Charge Grounds,” “Supplemental Nutrition Assistance Program: Requirements for Able-Bodied Adults Without Dependents,” “Revision of Categorical Eligibility in the Supplemental Nutrition Assistance Program,” and “Supplemental Nutrition Assistance Program: Standardization of State Heating and Cooling Standard Utility Allowances” (DHS 2018; FNS 2019b; FNS 2019a; FNS 2019c).

- Rescind the “Modernization of Swine Slaughter Inspection” rule (FSIS 2019). The rulemaking process failed to follow guidelines for scientific peer review and public comment, putting at risk the health of our food system, factory workers, and everyday people.
- Rescind the “Petition to Permit Waivers of Maximum Line Speeds for Young Chicken Establishments Operating Under the New Poultry Inspection System” (FSIS 2018) and abandon plans to propose a rule that would permanently increase maximum poultry line speeds across the board (Desikan 2020). The criteria established for faster line speeds contradict science regarding worker health and safety. The waivers also ignore multiple public comments opposing the increase in line speeds.
- Reinitiate the planned full environmental assessment of the Boundary Water Canoe Area Wilderness in Minnesota, which had begun to study the effects of establishing sulfide-ore copper-mining operations (UCS 2018b).
- Explicitly clarify the right of scientists and subject-matter experts to be the final reviewers of scientific content in public-facing press materials that rely on their work.
- Clarify and strengthen relationships between USDA scientists and public affairs offices to ensure that science informs the work of public affairs staff and that scientists are properly prepared to speak with media without undue interference.

To combat self-censorship and ensure that scientists at the USDA are explicitly aware of their communication rights, the USDA should take these steps:

- USDA political officials should reaffirm, in memos and other communications with department scientists, the importance of the communications provisions in the department’s scientific integrity (SI) policy, and it should establish processes to ensure that public affairs employees:
 - Will not alter the substance of scientific, scholarly, or technical information.
 - Provide news releases to subject-matter experts for review prior to their issuance.
 - Never ask or direct federal scientists to alter their scientific findings.
- The USDA SI official should reinforce, in communications with department scientists and political officials (such as in memos and talks), the importance of the department’s SI policy and the right of USDA scientists to speak to the news media and the public about their official work on behalf of the USDA.
- The USDA SI official should continue implementing training for scientists and public affairs staff about their rights and responsibilities regarding scientific communications.
- The USDA SI official should increase training for political officials on the department’s SI rules and procedures.
- The SI official should continue to check in consistently with scientific staff to ensure they understand their communication rights and answer any questions.
- The SI official should reinforce that scientists are responsible for coordinating with their supervisors and public affairs personnel regarding significant agency actions that have the potential to generate public interest or media attention, and that they are encouraged but not required to do so.

Ensuring Unimpeded Communication of Science

Since 2017, USDA scientists have faced heightened barriers to communicating science-based information to the public. In the 2018 survey of federal scientists, 221 USDA scientists (78 percent of USDA respondents) said they had to obtain departmental preapproval to communicate with journalists; more than 100 USDA scientists disagreed when asked if they were allowed to speak to the public about scientific findings (UCS 2018a). Scientists reported fear of retaliation for being open and honest in communications about scientific information. In open-ended responses, one scientist reported being “much more careful of what I say on the phone, in e-mail, and at meetings than I was in the past.”

In a widely reported case, a now-former USDA researcher saw his study on rice production and carbon dioxide suppressed by USDA officials who sought to minimize media coverage of his paper, even attempting to dissuade his academic coauthors from speaking to the press about the findings (Evich 2019a).

To ensure that federal science can accurately and promptly reach decisionmakers and the public, the USDA’s scientific integrity or new media policies should take these steps:

- Clarify in the USDA’s social media policy that employees have the right to publicly express their personal views without seeking prior permission and the right to identify their employer, as long as they make clear when they are speaking in a personal capacity.

- Provide employees with guidance on how to discuss scientific matters related to departmental work on social media, distinguishing the difference between personal and professional contexts.

Safeguarding the Production and Release of Scientific Information

While the USDA policy on scientific integrity protects the department’s scientists and their work from political interference, gaps in the policy have been apparent since 2017. For example, in September 2019, news broke that top political officials at the USDA had prevented the release of a far-reaching, five- to eight-year plan on how to respond to climate change, instructing staff to keep the plan for internal use—a clear example of inappropriate political interference and a violation of scientific integrity (Evich 2019b). In another example, in summer 2019, the USDA disregarded proper peer review of, and may have concealed data related to, a proposed plan that would allow pork-processing plants to police themselves and run their slaughter lines as fast as they want (UCS 2020; Kindy 2019). A June 2020 report from the USDA’s Office of Inspector General found a lack of transparency surrounding the raw data the department used in its worker-safety analysis, concluding that the department “neither ensured that the data in the proposed rule were presented in an accurate manner nor disclosed all known limitations of the data” (USDA 2020).

The USDA should consider the following recommendations to ensure that scientists can conduct and share research in a timely manner and without political interference.

The USDA Office of the Chief Scientist should issue a directive that includes these provisions:

- Require proactive disclosures for data requests, including the dates the process for considering the request started and was fulfilled.
- Set criteria to be met should the USDA decide to rescind a data request or archive a dataset it maintains. Such criteria might include a requirement to affirm with departmental scientific experts that a data metric is outdated and should be archived.
- Guarantee that financial interests do not inappropriately influence data collection.
- Commit the USDA to making data publicly available in accessible formats whenever possible, with a priority on data relevant to environmental justice.

- Deliver data requested by department scientists in a timely manner, provided the requested data do not violate any existing regulations (e.g., the Paperwork Reduction Act).
- Reaffirm that the department’s SI policy does not permit political or other officials to suppress or otherwise impede the timely release of scientific findings or conclusions.

To maintain and safeguard the USDA’s data repositories and information systems and ensure they are fully utilized, the Agricultural Research Service should take these steps:

- Seek adequate funding in congressional appropriations for the National Agricultural Library.
- Require department librarians and other agency officials to make incoming scientists aware of data repositories and other resources available to them and train employees on their use.

Strengthening Transparency of Scientific Integrity Processes

The USDA has created a strong policy regarding scientific integrity, but there is room for improvement in the transparency of how the policy resolves conflicts. For example, while the USDA produces an annual report of SI allegations separate from Inspector General reports, its report contains little detail regarding the substance of allegations (USDA n.d.d; USDA n.d.a). Moreover, the policy directs readers to submit Freedom of Information Act (FOIA) requests to view full investigations (USDA 2016). The policy also does not address how to handle scientific disagreements, except to note that the department does not consider them to be part of research misconduct. The USDA has a conflict-complaints division, but it is unclear if it handles cases of differing scientific opinions.

To ensure that scientists know their rights under the USDA’s SI policies, and that the department reinforces a culture of scientific integrity and transparency, SI officials should take these steps:

- Include SI case details—such as comprehensive descriptions of remedial actions taken—in the department’s annual report of SI allegations.
- Ensure that all non-classified information regarding SI investigations is publicly available without necessitating FOIA requests, which drastically impede the oversight

process and provide agencies with often unchecked discretion to withhold information.

- Include a policy on differing scientific opinions in the USDA's SI policy, detailing a conflict-resolution process. The differing-opinions policy should:
 - Encourage individuals to voice their professional opinions on issues, decisions, or policies relevant to their work, even if those opinions differ from the views of other staff, disagree with management, or diverge from proposed or established practices and positions. However, the application of a formal differing-opinions policy should be reserved for individuals who are or have been substantively engaged in the scientific or technical work that informs the specific decision, action, or policy with which the individual disagrees.
 - Outline clear steps for individuals to formally voice differing scientific opinions regarding issues, decisions, and policies on which they have been substantively engaged. These steps should include guidance on when such actions are necessary, when and how employees should express opinions, and to whom employees should submit differing scientific opinions.
- Stipulate that the secretary of agriculture direct the inspector general to coordinate with the SI office to resolve SI complaints, particularly when allegations involve personnel at the political level.
- Specify that the SI official report directly to the highest-ranking civil servant in the Office of the Administrator.

Conclusion

The USDA's science-informed policies provide support and guidance to farmers, protect the quality of our land and water, and help ensure that people eat healthy, nutritious foods. Since 2017, people across the country have been losing out on the benefits that the USDA can provide as the federal government sidelines science and forces scientists to leave the department. In 2021, the USDA must make science, scientists, and scientific integrity a top priority to revitalize morale among agency staff and the public and restore the benefits of the USDA's science-based activities to those in need.

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The Union of Concerned Scientists puts rigorous, independent science to work to solve our planet's most pressing problems. Joining with people across the country, we combine technical analysis and effective advocacy to create innovative, practical solutions for a healthy, safe, and sustainable future.

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