

USDA tried to cast doubt on study about climate effects on nutrients in rice

August 12 2019, by Hal Bernton



Credit: CC0 Public Domain

U.S. Department of Agriculture officials made a behind-the-scenes effort last year to cast doubt on a study co-authored by two University of Washington researchers about how climate change would affect the nutrients in rice.

The UW scientists were part of an international team that included two federal agricultural scientists. They studied how increased levels of carbon dioxide forecast for the end of the century could diminish the nutritional value of rice, and joined together to co-author a peer-reviewed study accepted by a journal of the American Association for the Advancement of Science.

In May 2018, weeks before the scheduled publication, findings in the rice study became a source of concern for program leaders of the USDA's Agricultural Research Service (ARS).

"The narrative isn't supported by the data in the paper," wrote Sharon Durham, a department public affairs specialist in a May 7, 2018, email to a Jeff Hodson, communications director for the UW School of Public Health.

Durham noted the USDA had decided not to send out a news release to publicize the study. "Please let me know how you will proceed with your own press release."

A statement Durham released to *Politico* and later to *The Seattle Times* said the concerns had nothing to do with the study's focus on [climate change](#). They came from career scientists, Durham wrote, adding that no political appointees viewed the draft news release before the decision was made not to send it out.

"The nutrition program leaders at ARS disagreed with the implication in the paper that 600 million people are at risk of vitamin deficiency," the statement said.

But a veteran researcher with a lead role in the study thinks the politics of climate change in the Trump administration's USDA factored into what he views as an attempt to discredit the findings.

"It was a very bizarre set of circumstances. I had been at USDA, altogether for 26 years, and nothing like that had ever occurred to me," Lewis Ziska said.

The Agricultural Research Service where Ziska worked—and recently resigned from—has a long history of high-quality science that stretches back through decades of Democratic and Republican administrations.

But under President Donald Trump, who has repeatedly questioned the science linking fossil-fuel pollution to rising global temperatures, Ziska said researchers who focus on sensitive topics such as climate change have become more cautious. Some worry their funding may get cut or they could get reassigned if their work comes to the attention of higher-level officials.

"There is basically a miasma of fear," Ziska said.

The USDA 2018 criticism of the rice study, first reported by Politico, did spur a response at the UW, which receives grants from the agency. The interim dean of the School of Public Health at that time was Joel Kaufman. He reviewed the study and reached out to the two UW researchers—Kristie Ebi and Adam Drewnowski.

In a May 15, 2018, email to Vice Provost Mary Lidstrom, Kaufman wrote that the methods and results seem straightforward, and the UW researchers involved in the study "stand behind the scientific content ... I'm bringing you into the conversation on the possibility that you would be concerned about the potential risk of irritating the USDA or other potential funders. Do you want or need to be involved in considering this issue?"

"For academic freedom aspects, if the authors are supporting the press release, the university will not interfere," Lidstrom wrote back.

One week later, the UW sent out its news release.

The multiyear study looked at what happens to a range of rice strains when grown under carbon-dioxide concentrations at end-of-the-century levels, which are forecast to be markedly higher due to the combustion of fossil fuels. The study involved eight researchers from the U.S., Japan, Australia and China. In test plots, some rice was grown with the higher levels of carbon dioxide, while control plots received no additional carbon dioxide.

The UW news release noted the study showed how rice grown at the century's end is expected to have lower levels of four B vitamins as well as less protein, zinc and iron, and it noted that the impacts will have a disproportionate impact on poor countries where rice is a dietary mainstay.

The study had a much rockier path through the USDA bureaucracy.

Initially, Ziska said, the study appeared to be moving smoothly through an internal department review in the early months of 2018.

The paper also completed an independent peer review organized by editors of Science Advances that involved scrutiny from at least two independent experts, according to a statement from the American Association for the Advancement of Science.

But in early May, shortly before the scheduled publication, Ziska said, he unexpectedly received a fresh round of questions from within the department's Agricultural Research Service and he then found that a USDA news release he had helped to prepare about the study had been spiked.

Durham, in a statement to The Seattle Times, said all research service

papers follow the same review and clearance process. "This paper was no exception."

Despite the lack of USDA support for the study, promotional efforts by UW and the editors of *Science Advances* helped stir media interest, with The Washington Post, The *New York Times* and other outlets in the U.S. and internationally reporting on the findings.

The USDA did make Ziska available for interviews. But after the splash of publicity for the study faded, Ziska, disillusioned, decided the time had come to leave. Now at Columbia University, he will continue his research on the impacts of a warming world on agriculture.

Ebi, his UW colleague, said Ziska's departure is a significant loss for the department at a time when it's important to follow through on research to determine what can be done to counteract the impacts of the declining nutritional values of rice on the global poor who depend on this food.

"We need to understand the breadth and depth of these problems, and what the solutions are," Ebi said. "It is critically important science, and USDA should be involved."

©2019 The Seattle Times

Distributed by Tribune Content Agency, LLC.

Citation: USDA tried to cast doubt on study about climate effects on nutrients in rice (2019, August 12) retrieved 8 May 2024 from <https://phys.org/news/2019-08-usda-climate-effects-nutrients-rice.html>

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.