



ABOUT

The United States Department of Agriculture provides leadership on food, agriculture, natural resources, rural development, nutrition, and related issues based on public policy, the best available science, and effective management. It provides economic opportunity through innovation and helping rural America to thrive; to promote agriculture production that better nourishes Americans; and to preserve our Nation's natural resources through conservation, restored forests, improved watersheds, and healthy private working lands. To view Ag Data Commons, visit data.nal.usda.gov.



"In order to provide open data services to scientists, we needed to take bold steps to enhance our capabilities."

Cynthia Parr, Technical Information Specialist USDA ARS

ADVANCING AGRICULTURAL SCIENCE THROUGH OPEN DATA.

SITUATION

BECOMING A PART OF THE GROWING OPEN DATA MOVEMENT.

The United States Department of Agriculture National Agricultural Library (USDA NAL) is one of four national libraries in the country, housing one of the world's largest collections devoted to agriculture and its related sciences.

To continue their mission of advancing agricultural research, USDA NAL needed a portal to make USDA-funded research data more accessible to researchers, scientists, and the extended community it serves.

With the portal, USDA NAL wanted to improve its digital services through open-sourcing data and making it machine-readable by default. It also needed to help the agency reach compliance with the *federal open data directive*, which calls for expanding public access to the results of all new federally-funded research.

Enabling access to large amounts of historical data was another important goal for the research library. Data from previous decades combined with rapidly growing amounts of current and future data can be especially important for research on long-term trends in farming and environmental change. For USDA NAL, it was all about getting data into a format where its audience could access, understand, download, and analyze it on their own.

SOLUTION

OPENING ACCESS TO IMPORTANT AGRICULTURAL DATASETS.

An open-source platform was the clear solution; it would allow USDA NAL to publish data in multiple formats and afford more flexibility as needs evolved over time. In 2014, USDA NAL began developing their open data portal to provide consistent access to a network of data on agricultural genomics, climate change, ecosystems, natural resource conservation, and other related topics. They opted to partner with GovDelivery's open data team to add features to and deploy DKAN, a Drupal-based open source platform that would create a flexible, long-term solution for scientific data publication, maintenance, and visualization. DKAN was a top choice because it provided USDA NAL with a user-friendly open source, open data portal, allowing scientists and other users from around the nation to more easily submit their data, keep it organized, and make it freely accessible to future researchers.

METRICS

5

VPGC DATASETS
PUBLISHED

107

DATASETS ADDED TO
REGISTRY

120

COUNTRIES
ACCESSED AG DATA
COMMONS*

*MAY 3, 2015 - JANUARY 13, 2016

With the help of the GovDelivery team and DKAN, USDA NAL launched their portal, Ag Data Commons, in beta as a centralized registry for data already on the web, as well as a repository for new data being published for the first time by researchers and scientists across the nation.

GovDelivery's DKAN solution supports USDA NAL's short- and long-term needs by:

1. Offering a robust open code framework so USDA developers can make changes, additions or customizations as the project develops.
2. Allowing for future partnerships and the ability to leverage enhancements created by other public sector developers, because other federal organizations like Healthdata.gov are also adopting DKAN technology.
3. Facilitating more transparent science through customized implementation of literature linking, reference features, and allowing researchers to cite and reference datasets in their research.
4. Reducing potential duplication of work through transparency and universal access to data, which allows users to eliminate unnecessary work.

RESULTS

DRIVING INNOVATION IN AGRICULTURE THROUGH ENHANCED COLLABORATION AND ACCESS.

Early successes of the Ag Data Commons platform include several genome projects and the USDA Agricultural Research Service (ARS) Long-Term Agroecosystem Research (LTAR) initiative.

Genomics: One example of a genomics project is [The Veterinary Pest Genomics Center \(VPGC\)](#). This initiative within the USDA ARS leverages big data to evaluate risk from, and develop mitigations for, invasive veterinary pests. Since Ag Data Commons' launch, USDA ARS has published five datasets, with more to come.

Long-Term Agroecosystem Research (LTAR): [The LTAR initiative](#) has published 107 datasets that will help researchers ensure sustained crop, livestock production, and ecosystem services, and forecast and verify the effects of environmental trends, public policies, and emerging technologies.

USDA NAL will continue to measure success by the number of research communities and datasets available. Their plan is to continue fostering public sector innovation by empowering an entire global community of practice to open their data, share their expertise, and collaborate online.

ABOUT GRANICUS

Granicus provides technology that empowers government organizations to create better lives for the people they serve. By offering the industry's leading cloud-based solutions for communications, meeting and agenda management, and digital services to more than 3,000 public sector organizations, Granicus helps turn government missions into quantifiable realities. Granicus products connect more than 150 million people, creating a powerful network to enhance government transparency and citizen engagement. By optimizing decision-making processes, Granicus strives to help government realize better outcomes and have a greater impact for the citizens they serve.