The cloud and the changing face of agriculture

Amazon Web Services Agriculture Analysis in the Cloud Day at The Ohio State University

Enterprises, non-profits, and startups around the world are using the cloud to accelerate innovations that are changing the face of agriculture.

In support of The Ohio State University's Discovery Themes initiative, and in tandem with the 2016 Farm Science Review, Amazon Web Services and experts from around the country will demonstrate how massive public data sets of satellite photos and other earth-observation data can be used in precision agriculture. Coupled with advanced sensor technology and the Internet of Things, these data sets can be used specifically to increase crop yield, conserve natural resources, create a safer and more resilient food-supply chain and fight hunger.

Ohio State will host the daylong event – a series of six demonstrations – on Monday Sept. 19 from 8:30 a.m. to 6:30 p.m. at the Nationwide & Ohio Farm Bureau 4-H Center on the Columbus campus. The event is free but registration is required. Breakfast and lunch is provided.

Demonstrations will include:

- Overview of earth-observation data in the cloud and Internet-of-Things for agriculture studies
- Ensuring sustainability and resilience of agriculture
- Agriculture data analysis in the cloud
- How Big Data is changing agriculture.
- Internet-of-Things (IoT) and new sensors
- The future of agriculture

Amazon Web Services' massive collection of public data sets includes 85,000 images from Landsat 8. Landsat is an earth observation program conducted by the U.S. Geological Survey (USGS) and NASA that creates moderate-resolution satellite imagery of all land on Earth every 16 days. Launched in 1972, the Landsat program is the longest ongoing project to collect such imagery. Landsat 8, the newest Landsat satellite, gathers data based on visible, infrared, near-infrared, and thermal-infrared light.

Because of Landsat's global purview and long history, it has become a reference point for all Earth observation work and is considered the gold standard of natural resource satellite imagery. It is the basis for research and applications in many global sectors, including agriculture, cartography, geology, forestry, regional planning, surveillance and education.

About AWS Agriculture Analysis in the Cloud Day at The Ohio State University
8:30 a.m. to 6:30 p.m. Sept. 19, 2016
Nationwide & Ohio Farm Bureau 4-H Center
The Ohio State University, 2201 Fred Taylor Drive, Columbus, OH 43221
Register at:https://aws.amazon.com/government-education/open-data/AgAnalyticsatOSU/
Contact: Jenna McGuire, 614-247-7855, mcguire.165@osu.edu

About The Discovery Themes at Ohio State
As one of the nation's most comprehensive public research institutions, The Ohio State University is taking a leadership role in solving the global challenges of the 21st century. The Discovery Themes initiative will increase the university's research capacity and leverage its diverse expertise, resources and global connections. It represents the natural evolution of Ohio State's land-grant commitment to serve as a solution engine for the region and the world. A foundational program within the initiative, Translational Data Analytics @ Ohio State, integrates the university's data analytics expertise and creates multidisciplinary solutions in precision agriculture.

About The Ohio State University Farm Science Review
Sponsored by the College of Food, Agricultural, and Environmental Sciences, the Farm Science Review, has been showcasing the latest in agricultural innovations for 53 years. This year's show is Sept. 20-22 at the Molly Caren Agricultural Center near London, Ohio. The Review offers visitors some 180 educational presentations and opportunities presented by educators, specialists and faculty from OSU Extension and the Ohio Agricultural Research and Development Center, which are the outreach and research arms, respectively, of the college.