

Research Security in the age of Digital Agriculture

Digital agriculture Research and Farming

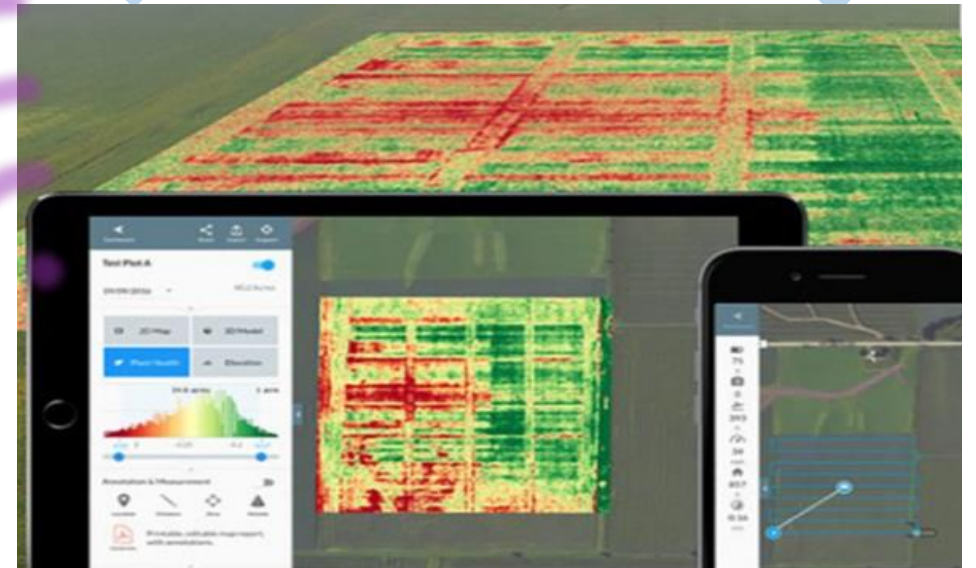
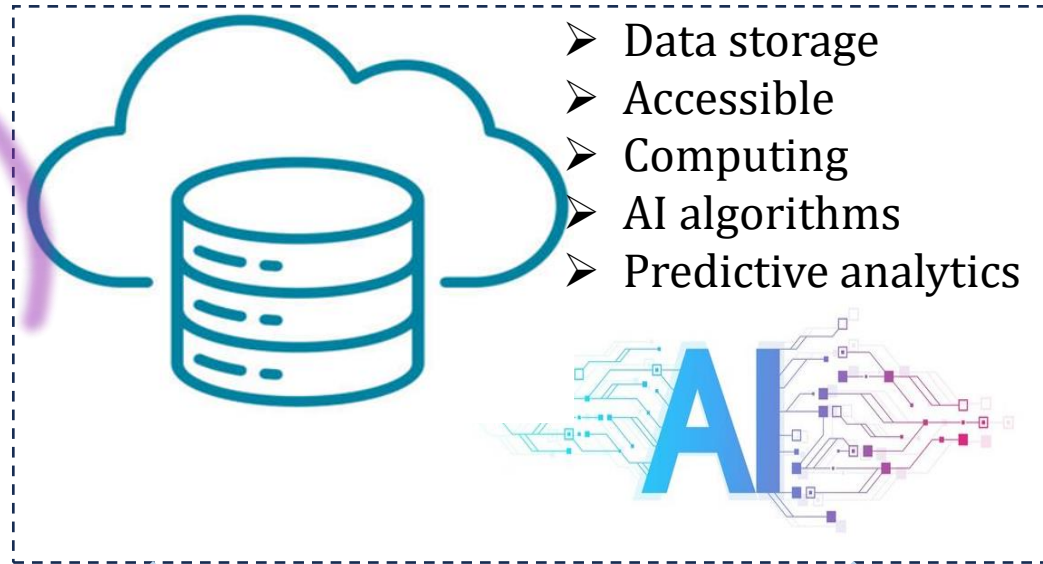


Soil Survey Geographic Database (SSURGO)

NATIONAL GEOSPATIAL PROGRAM

Topographic Maps

**Goal: Improving Productivity,
Profitability, and Sustainability**



An example of risk mitigation on data transmission

Restrictions on the DJI manufactured drones



Added DJI to the list of "Chinese military companies" operating directly or indirectly in the United States



- Data sharing option on the UAVs must remain turned off
- Remove all data from the drones prior to any software/firmware updates
- Do no upload any research to the cloud
- Ban the SZ DJI Technology Company from all state-owned and state-issued devices and networks

How are we currently working:



U.S. DEPARTMENT OF AGRICULTURE
WASHINGTON, D.C. 20250



DEPARTMENTAL REGULATION	NUMBER: DR 1020-006
SUBJECT: Public Access to Scholarly Publications and Digital Scientific Research Data	DATE: July 20, 2022
OPI: Office of the Chief Scientist	EXPIRATION DATE: July 20, 2027

1. PURPOSE

- a. This Departmental Regulation (DR) establishes the United States Department of Agriculture (USDA) policy for public access to scholarly publications and digital scientific research data assets. The USDA will make all peer-reviewed, scholarly publications and digital scientific research data assets arising from unclassified scientific research supported wholly or in part by the USDA accessible to the public, to the extent practicable.
 - (a) Digital scientific research data assets that are outside the scope of this policy include:
 - 1 Computational models and computational model-related content (including parameters, inputs, outputs, and other derived output products); and

At the University level:

- Research security offices
- Management & Oversight
- Compliance
- IT Operations
- Intellectual properties
- Export control

<https://www.usda.gov/sites/default/files/documents/dr-1020-006.pdf>

Key areas to consider

Data protection:

- Protecting the confidentiality, integrity, and availability of the data
- Encryption, access controls, data anonymization, and secure transmission protocols
- Safeguarding sensitive agricultural data from unauthorized access, manipulation, or theft.

Intellectual Property Protection:

- Development of innovative technologies, software applications, and data analytics tools
- Protecting intellectual property rights through patents, trademarks, copyrights, and trade secrets.