

Artificial Intelligence

ISSUE: The widespread adoption of Artificial Intelligence (AI) across different facets of our economy and society is evident. How the agricultural sector embraces this evolving technology, coupled with the push from some in Pierre to institute regulatory measures, raises pertinent policy questions that require careful consideration and response.

OVERVIEW:

By the end of this decade, it is projected that AI will increase global economic growth by \$13 trillion. While its uses in the medical, financial, and general business sectors are more apparent, the use of AI in agriculture is less obvious. Today, approximately 200 AI-based agricultural startup companies are in the United States. From autonomous farm machinery and autonomous sprayers to drones that collect potential crop health, pest, and yield data, agriculture is in the beginning stages of substantial growth in the use by farmers and ranchers.

At the same time, as growth of new AI technologies continues to accelerate, questions surrounding data access and security, labor, and potential regulatory controls warrant concern. In 2022, the U.S. Chamber of Commerce formed the Commission on AI Competitiveness, Inclusion, and Innovation. The commission ultimately concluded that some level of federal regulation of AI should exist because leaving the technology completely unregulated could harm the economy, diminish individual rights, and constrain the development and introduction of beneficial technologies.

From an agricultural standpoint, just one plant or one animal can provide millions and millions of individual data points on health, weather, nutrition, waste, etc. The data can be used to help farmers and ranchers make improvements in every aspect of production, leading to better overall efficiency including decreased use of water and pest control products. Fast-forward to harvest when the integration of better AI technology in combines could result in automatic machine adjustments rather than manual ones. Animal health and nutrition determinations could be analyzed to help livestock producers ensure cattle, hogs,

and poultry are all healthy and growing and help producers make better production decisions.

CONSIDERATIONS:

1. **Data Security and Privacy:** The use of AI in agriculture involves the collection and analysis of vast amounts of data, raising concerns about data security and privacy. Policymakers must consider how to regulate data management and ownership to protect farmers' rights while facilitating data sharing and collaboration for innovation and research purposes.
2. **Ethical Considerations:** As AI technologies become more sophisticated, ethical considerations surrounding their use in agriculture become increasingly important. Questions about algorithmic bias, transparency, and accountability must be addressed through appropriate regulatory frameworks.

SDFB POLICY: SDFB holds no specific policy related to AI; however, American Farm Bureau Federation (AFBF) has a host of policies related to the topic. Those can be found in 146 / Artificial Intelligence on page 29-30 of the 2024 AFBF Policy Book.

DISCUSSION:

1. What role should state governments play in regulating AI in agriculture?
2. Should there be specific rules and regulations tailored to the unique challenges and opportunities of AI use in agriculture? How can policymakers strike the right balance between fostering innovation and ensuring safety, fairness, and sustainability in agricultural AI applications?
3. How should data management and ownership be regulated in the context of AI in agriculture? Should there be standardized protocols for data sharing and interoperability? How can farmers retain control over their data while still benefiting from collaborative data-driven initiatives?
4. Is this a priority for SDFB?