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Digital Agriculture Strategy

Keystone Agricultural Producers (KAP) is Manitoba's general farm policy organization, providing a unified voice for farmers on issues that affect agriculture. KAP represents and promotes the interests of all Manitoba farmers and 20 commodity associations.

The farming future is digital. Three agricultural revolutions have already occurred, and data-driven innovation and digital technology represent the fourth agricultural revolution. Manitoba farmers have used robotics, blockchain, AI, and the Internet of Things to advance their farm operations. To further enable digital agriculture in Manitoba, the Department of Agriculture can play an important role by outlining a strategic direction for digital agriculture. A digital agriculture strategy must be simple and concise. A strategy must enable, not limit. And a long-term vision for the sector is required given digital agriculture's significance. Technological advancements aim to improve productivity, increase profitability, address labour shortages, and enhance decision-making. Given this significance, KAP is pleased to provide comments to Manitoba Agriculture's Digital Agriculture Strategy.

The Right to Repair

Advancing digital agriculture requires the right to repair. The right to repair promotes innovation and competition—two features essential for digital agriculture. Third-party repair creates a more competitive marketplace by ensuring fair prices and providing timely repair options. Additional repair options and competitive pricing matter, particularly during harvest and inflationary periods. And farmers face challenges in repairing their own equipment. These challenges include legal barriers, physical barriers, license-use barriers, and knowledge barriers. Recently, parliament passed bills C-244 and C-294, which has addressed some legal barriers with the right to repair. But challenges remain. Farmers have no guarantee that manuals, diagnostic software, and tools are available to them. Both Quebec and Ontario have recognized the challenges consumers face in repairing their own equipment and introduced right to repair legislation. Amendments to the Consumer Protection Act and the Farm Machinery and Equipment Act would not only advance the right to repair but also digital agriculture in Manitoba.

Rural Connectivity

Manitoba's infrastructure plays a key role in a farmer's adoption of digital technology. Digital agriculture relies heavily on telecommunications. But a main challenge exists in rural Manitoba: connectivity. Farmers have frequently commented on the limited wireless connectivity outside urban areas. Limited connectivity constrains farmers' choice for digital agriculture tools due to the minimum upload and download speeds required for proper-functioning equipment. Farmers experience frustration when sporadic connectivity limits how they can run their business. Adopting new technology can create onfarm efficiencies and increase profits, but not every farmer will experience these benefits under the current connectivity state. A competitive disadvantage occurs compared to urban areas.

How can the situation be improved? The province can add a rural connectivity as a tenet to its strategy. Other provinces such as Alberta have created a broadband strategy that contains three solutions: funding, policy reform, and technology. These solutions also have relevance for Manitoba farmers.

<u>Labour</u>

Labour shortage exists in Manitoba. Farmers have struggled to find adequate labour resulting in lost production, productivity, and earnings.² As farms increase in size and production, the labour requirement becomes more pronounced. Two perspectives occur when connecting digital agriculture with labour and education. (1) Digital agriculture can provide solutions and reduce labour shortages. (2) Digital agriculture requires a skilled, educated workforce. But not every farmer has the knowledge to fully adopt new digital technology. As technology improves, agronomists, technicians and other key ag workers must continually improve their knowledge and skills to keep pace and remain relevant with the latest technology. Post-secondary institutions can improve digital literacy to ensure that the current-and next-generation farmers retain a competitive advantage.

Collaboration

Collaboration can reduce fragmentation in digital agriculture. Uniformity does not exist in digital agriculture. Large farms tend to have higher digital agriculture adoption rates compared to small farms.³ Access to capital is one reason for this difference, but education, farming practices, and commodity type also play a role (i.e., not all commodities have the same technological needs). And fragmentation also exists with entrepreneurs in digital agriculture. Not only do entrepreneurs have difficulty in finding farmers to adopt their technology, but farmers have difficulty in connecting with entrepreneurs to adopt new technology. Connections exist, but many farmers and entrepreneurs wonder what other opportunities exist. Government has a role here. Collaboration requires leadership, and government can work with other municipal, provincial, and federal leaders to ensure that increased coordination and collaboration occur within digital agriculture.

Funding

Farmers often look at the return of investment when considering purchases—digital agriculture products are no different. And farmers want to see a reasonable payback period when adopting new technology. Because digital agriculture products have a various payback periods, farmers may lack investment interest particularly if significant digital infrastructure supports are needed. And consider the farming reality for some commodities: annual crops carry an elevated risk when adopting new technologies since farmers have only one opportunity for adoption and assessment each year. A similar risk exists with entrepreneurs wanting to test their product. Knowing these challenges, the provincial government can provide funding that reduces risk when adopting new agriculture technology. And additional funding could be negotiated in the next SCAP framework.

Data Governance and Regulation

A digital agriculture strategy must include data governance and regulation. Farmers value their privacy, and how their data are managed by third-parties matter. Three questions emerge with data

¹ <u>https://open.alberta.ca/dataset/7c985469-fb6c-4a46-8bfb-5531ccb8f5aa/resource/ff3382ee-29fc-484b-9378-</u>245baa521e08/download/sa-alberta-broadband-strategy-2022.pdf

² https://cahrc-ccrha.ca/sites/default/files/2024-03/ProvMB-Factsheet 2024-EN.pdf

https://capi-icpa.ca/wp-content/uploads/2025/05/2025-05-20-Digital-Agriculture-EN-CAPI.pdf

governance. (1) Who owns the data? (2) How will the data be used? (3) What are farmers' privacy rights? Answers do exist, but skepticism, confusion, and distrust still exist among some farmers. Building trust and addressing knowledge gaps are actions government can take to improve data governance. Ag Data Transparent is a good industry-led example of building trust in digital agriculture, and additional partnerships can improve on this initiative. Plus, reviewing regulatory barriers can also advance digital agriculture. E.g., Manitoba farmers cannot access the same technology as American farmers. One well-known example includes a spraying prohibition involving drones. Regulatory reform can serve as an important goal for any digital agriculture strategy.

Targets and Reporting

How will success be measured? What are the goals? Will there be progress reports? A digital agriculture strategy needs goals and a clear pathway to achieve these goals. Manitoba farmers are innovators and will continue to adopt digital tools while advancing their farming goals. The Manitoba government can play an important in assisting farmers on their digital agriculture journey.

Thank you for providing the opportunity to comment on a digital agriculture strategy. If you have any questions about this document, please contact KAP policy manager, Neil Van Overloop, at neil.vanoverloop@kap.ca.

Sincerely,

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