Snapshot Report

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Remote Vet Inspection

Prepared by

Remote Animal Health and Welfare Inspection for Australian Red Meat Processing Industry

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Project Description

Inspection of livestock health and welfare is a significant and necessary activity across the red meat supply chain. Historically, animal health management and inspection by veterinarians and related workers, whether by government or third-party organisations, has relied on paper-based checklists (though digital checklists are emerging), email and phone communications, as well on-site visits to inspect an establishment feedlot in person. This labour-intensive approach has changed little in decades and has significant limitations and inherent weaknesses which impose considerable costs on the red meat processing industry.

Advanced, innovative technologies are suggested to provide an opportunity for improving national biosecurity surveillance strategies, reliability, and cost-effectiveness. New digital communications technologies present the opportunity to scale animal health and welfare assessments. Industries such as manufacturing, logistics, and the military are now actively adopting the use of smart glasses across their business to drive efficiencies. Such technologies also enable the delivery of expertise at a distance, this enabling a greater range of workers across supply chains to be involved in delivery of expert services.

Following our previous investigation of the use of remote audit technologies in the red meat processing sector (AMPC 2021-1113), it was clear an opportunity presented itself to further explore the potential for remote inspection technologies for delivery of remote animal health and welfare inspections. The research reported here aimed to provide the red meat processing sector with a better understanding of the opportunities for provision of livestock health and welfare inspections in those instances where a specialist, e.g. veterinarian, may not be available inperson to make a determination

Project Content

Objectives of the project included:

Significantly increase the number of Australian feedlots and meat processors who are trained and ready for remote inspection and auditing.

Increase the number of Australian veterinary professionals, para-veterinary workers, and auditors, whether government, third party, Halal or other, performing remote veterinary inspections.

Develop a range of new Remote Inspection product features to significantly increase the benefits of remote auditing and veterinary inspection over traditional inspection.

Contribute towards the development of international standards that take advantage of Australia's early lead in developing remote auditing and veterinary inspection.

Activities undertaken in the project include:

Video calls and site visits with several Australian red meat processing facilities, as well as several interviews with veterinarians, livestock managers and producers helped inform the project response to these objectives.

An extensive review of the grey and published literature was conducted which revealed the emerging use of remote livestock health and welfare inspection technologies across the globe.

Comparison between features of various video communication tools (Zoom, Skype, Teams etc) which have increasingly been used across numerous industries and evaluation of alternative solutions which are more specific for delivery of remote expertise services.

Several remote livestock inspections were performed in collaboration with veterinarians.

Project Outcome

The project identified that there is an emerging use of remote inspection technologies for animal health and welfare assessment in different jurisdictions. For example, in Alberta, Canada, legislation enabling the use of video-based antemortem inspections has been in place throughout 2022. Furthermore, during Covid, the US Food and Drug Administration lifted a restriction on the in-person requirements for delivery of veterinary services, enabling the uptake and use of tele-veterinary consultation services.

The project also established that while remote veterinary and animal health and welfare inspection tools are increasingly available globally, many of these are for the pet healthcare market. There is a significant gap in the availability and use of technologies that can facilitate delivery of health and welfare services for production livestock.

Through interviews with veterinarians and others involved in the management of livestock health and welfare, it was clear that remote inspection tools could be useful to address existing barriers to provision of health and welfare inspections such as the distance and cost involved in delivery of veterinary services in regional, rural and remote Australia.

More importantly, remote inspection technologies offer the opportunity to address the growing concern about the lack of livestock trained veterinarian who are working in regional Australia. Our investigation revealed that there is an emerging opportunity to leverage a larger workforce of para-veterinary professionals who could work under supervision by a remote veterinarian to deliver required health and welfare inspection services.

We identified which aspects of remote inspection technology are suitable for animal health and welfare inspections as well as which additional technologies and features would need to be integrated into existing remote tools, e.g. digital stethoscopes. We also engaged with veterinarians to participate in trial remote animal health and welfare inspections across several scenarios involving on-farm production through to red meat processing facilities. Based on their experience, we are confident that as a back-up tool, remote inspection technologies could be used to deliver health and welfare inspections.

Benefit for Industry

This project has provided preliminary demonstrations that video streaming collaboration tools involving hands-free smart glass technology is a viable approach for delivery of remote livestock health and welfare inspections. For the red meat processing sector this means that livestock managers who may normally need to travel significant distances to observe animals in feedlots or farms could now explore the use of remote technology to conduct those inspections.

In the instance that in-person veterinary inspections are not possible video streaming technology may be a viable solution for bringing in an external veterinary officer. Note current importing country requirements may preclude the use of remote inspection technology.

Useful resources

https://www.alberta.ca/video-ante-mortem-inspection.aspx

Reliability of remote post-mortem veterinary meat inspections in pigs using augmented-reality live-stream video software