New study to help producers manage the impacts of future bushfires

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MLA is funding a ground-breaking study into the effects of bushfires on livestock health and welfare, with the aim of developing guidelines to help producers manage the impacts of future bushfires.

Here, MLA Project Manager – Animal Health Welfare and Biosecurity, Dr Mike Laurence, discusses the new project.

Q: Who is undertaking the bushfire study?

A: MLA is providing $1.3 million in funding for this extensive two-year study, which is a collaboration between the University of Melbourne's Faculty of Veterinary and Agricultural Sciences, University of Sydney and Ausvet.

Researchers will examine the effects of the 2019–2020 bushfire season on surviving cattle and sheep, how to protect livestock in future and how red meat producers have recovered since the bushfires.

Q: What prompted MLA to invest in the study?

A: Obviously, unexpected emergencies like the devastating bushfires earlier this year have many impacts, including on producers, livestock and the livestock supply chain.

MLA wanted to better understand the impact the bushfires had on production systems for producers and determine what those impacts are on live animals exposed to bushfires. This includes the post-slaughter impacts, and whether bushfires influence carcase and meat quality.

The whole project was developed to provide producers with guidelines on how to mitigate the risks of bushfires on their livestock and businesses, and what to expect from their animals in the wake of bushfires.

It's a broad, detailed project that is a collaboration among three institutions, and aligns with MLA's focus on delivering impact through 'fewer, bigger, bolder' initiatives and programs of work.

Q: What will red meat producers gain from the study?

A: One of the major outputs will be the development of a Livestock Bushfire Preparedness Manual for producers.

The manual will be one of the key outputs but having a better understanding of what bushfires do to beef and sheep production systems is one of the valuable things it will deliver for the red meat and livestock industry.

Q: How will the study be undertaken?

A: It will involve interviewing producers affected in the 2019–2020 fire season and conducting online surveys that address bushfire risk management and recovery strategies, and their success.

Researchers will collect live animal data from livestock that were exposed to the bushfires, including biological specimens, DNA and samples to assess if there has been any impact on their immune system.

They will have links to the Meat Standards Australia (MSA) data sets, so when those animals are processed, they will be able to see if there are any lasting impacts on carcase quality from exposure to bushfires.

Researchers will also be examining available geospatial data to look at the shapes of farms and paddocks to determine if there are risk factors associated with paddock or farm design.

It will investigate patterns of burnt areas and livestock losses across each farm's landscape, identifying important features that will allow farmers to determine the safest paddocks for stock to be in as part of their fire plan.

The research will develop a paddock fire risk index that can be used on any farm for future management decision-making, informing strategies for red meat producers to reduce the extent of livestock injury and loss in the event of a bushfire and, once a bushfire has occurred, minimise ongoing impacts.

The project will also address environmental recovery by studying and recommending post-fire management plans to improve pasture rehabilitation and reduce the risk of introducing weeds.