



15 December 2016

Committee Secretary  
Senate Standing Committee  
Rural and Regional Affairs and Transport  
Via email: [rrat.sen@aph.gov.au](mailto:rrat.sen@aph.gov.au)

**Re: Regulatory requirements that impact on the safe use of Remotely Piloted Aircraft Systems, Unmanned Aerial Systems and associated systems**

The National Farmers' Federation (NFF) welcomes the opportunity to make a submission to the inquiry into *Regulatory requirements that impact on the safe use of Remotely Piloted Aircraft Systems (RPAS), Unmanned Aerial Systems (UAS) and associated systems*. The NFF strongly supports a system for RPAS and UAS that allows farmers to increase productivity on farm while maximising safety. The challenge ahead for Australian agriculture is to continually innovate to meet growing global demand for quality food and fibre. Access to transformative technologies such as UAS and the Internet of Things will be a crucial part of our future.

The NFF is the peak national body representing farmers and, more broadly, agriculture across Australia. Operating under a federated structure, individual farmers join their respective state farm organisation and/or national commodity council. These organisations collectively form the NFF.

**Drones: Opportunities for Agriculture**

As identified in RIRDC's 2015 report *Rural Industry Futures*<sup>1</sup>, transformative technologies such as drones have the capacity to change the way food and fibre are produced. Drones can provide farmers with valuable data to better monitor conditions on farm. These sophisticated tools will enable farmers to manage ever larger areas of land and assist them with decision-making. It is to be expected that digital technologies can improve risk management approaches on farm, predicting weather and yields with greater accuracy.

Drones will be part of the Internet of Things on farms, integrating information from connected devices into a digital map of farm parameters. Drones could, potentially, be used to assist farmers in monitoring fencing or to spray plants. In turn, farmers will spend less time driving through paddocks as they will be able to manage larger areas of land by analysing data. The RIRDC report outlines how agriculture could use drones: "Low-flying drones, equipped with sensors and digital imaging, such as infrared, X-ray and hyperspectral imaging, can detect water stress, nutrient deficiencies and disease. Orchards can be monitored for flowering, weed invasion can be detected and livestock located."<sup>2</sup>

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<sup>1</sup> Stefan Hajkowicz and Sandra Eady, *Rural Industry Futures – Megatrends impacting Australian agriculture over the coming twenty years*, Canberra: RIRDC, 2015.

<sup>2</sup> Hajkowicz and Eady, page 80.

## **Regulatory barriers**

To enable the use of drones to apply agricultural chemicals, the COAG national chemical regulation framework would need to be amended. The NFF wrote the following in its response to the COAG review of the national chemical regulation framework in November 2016:

“The NFF believes that it is critical to ensure that the implementation of the proposed national licensing model for the application of agvet chemicals is done in a technology neutral manner. Failure to do so is likely to neutralise one of the greatest competitive advantages held by Australian farmers, namely their capacity and willingness to innovate. In the foreseeable future, agvet chemicals will be applied by new weed-seeking technologies that are either remotely controlled or that operate automatically. These technologies will be well placed to deliver chemicals efficiently to the target population and are likely to minimise the cost of off-target spray. The NFF believe that farmers should be free to implement these disruptive technologies in their production systems without the burden of licensing.”<sup>3</sup>

## **Concerns about safety, privacy and public liability**

The NFF welcomes a regulatory system of UAS and RPAS that encourages the uptake of drones in everyday farming while, at the same time, ensuring that all staff working on farm are safe, including those using light aircraft for mustering, spraying or other purposes.

The NFF is concerned about the use of drones by trespassers, flying over rural properties without the permission of farmers. The NFF suggests to design a safe and efficient system to monitor drone movements and to ensure the privacy and safety of rural landholders. It is vital that drones are appropriately controlled and that farmers do not need to fear the entry of unwanted drones on their property. Technological solutions such as geo-fencing could prevent trespassing on farm, protecting people, stock and wildlife on properties.

Further, we draw the Committee’s attention to the 2014 Senate Report, Eyes in the Sky, which recommended that the Commonwealth Surveillance Devices Act 2004 be reviewed to specifically encompass the use of UAV/RPAS by private individuals.

It is crucial for UAS operators to arrange insurance cover for drone use and to understand the Civil Aviation Safety Authority (CASA’s) regulatory regime and certification procedures to better protect themselves as operators, their property and public liability issues for other parties. The NFF recommends that a communication campaign be developed to inform the agricultural sector of safety considerations, public liability concerns and insurance requirements relating to drone use for primary production activities.

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<sup>3</sup> NFF submission to the AgVet Chemicals Task Group Secretariat, COAG, on 28<sup>th</sup> November 2016.