



# Rethinking Ag Data Ownership

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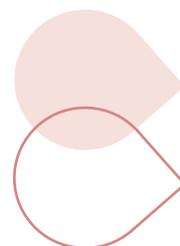
While much has been written on the future state of big data in agriculture in Australia and elsewhere, the majority of the commentary and literature focuses on the benefits that digital agriculture can bring to productivity of agricultural industries – very little has focused on the potential legal issues and barriers to the adoption of digital technologies in agriculture. These barriers include the uncertainty around the ownership of agricultural data, and the consequential lack of producer confidence in the security and the broader benefits of big data. With a lack of certainty, the lack of confidence becomes a barrier to the adoption of technology itself. This paper argues that the focus on ag data ownership is rather unhelpful and in some cases, unnecessary and distracting. Rather than tackle the legal complexities and uncertainties of the way in which the law approaches ownership of ag data, agricultural industries, their producers and stakeholders would be better served to think about the way in which data is being collected, controlled and accessed. Rather than leaving ag data management solely in the hands of the data aggregators, agricultural industries, producers and stakeholders should work collaboratively to ensure that the basic building blocks of good data management (transparency, trust, and fairness) become part of Australian agricultural data governance. Clarity around the goals of good data management will also assist agricultural industries to open the dialogue and build confidence within their stakeholder communities. Improving transparency around the current management practices of ag data is an essential first step in moving Australian agriculture towards best practice in agricultural data governance.

## Introduction

Very little of the literature written on the future state of big data in agriculture in Australia and elsewhere, has focused specifically on the potential legal issues and barriers to the adoption of digital technologies in agriculture. These barriers include not only the uncertainty around the ownership and control of agricultural data, but also the consequential lack of confidence that producers have in the security and privacy of their data, and the broader benefits of big data.

The recent CSIRO survey of 1000 Australian producers, completed as part of the Accelerating Precision Agriculture to Decision Agriculture Research (P2D) project (Zhang et al. 2017), explored the way in which the Australian agricultural industry is embracing digital farming

technology. The reported attitudes and reactions of producers to a variety of issues arising from the increasing use of data and big data within agriculture provide important insights. This survey highlighted that the majority of producers use a variety of technologies to collect data from their farms, and that those who collected data were positive in relation to the fact that good data assisted them in making better farm management decisions. However, despite this positive outlook, this research importantly also revealed that the majority of producers surveyed have little knowledge of the terms imposed upon them by the data licences they enter into when making use of digital technologies on farm. This leads to the concern held by many that their data licences contain provisions about who owns and who controls, as well as provisions that may allow for the sharing of the resulting aggregated data sets.



The general lack of knowledge about the terms on which producers provide their data to third parties results in not only a lack of trust and confidence about who owns the producers' production and agricultural data, but also who benefits from that data. Concerns were also highlighted that third parties could potentially benefit from producers' data at the expense of the producers themselves.



Interestingly, in the United States (US) in November 2017, there were detailed discussions about the issues raised by data-driven farming by the US Senate Subcommittee on Consumer Protection, Product Safety, Insurance, and Data Security in their hearing, *Technology in Agriculture: Data-Driven Farming*. US Senator Moran's opening statement highlighted 'the collection and use of [ag] data raises issues regarding control of the data [and] transparency of agreements between farmers and data firms'. These issues are the very same that Australian producers have identified that they encounter when engaging with digital agricultural technologies (available at: <https://www.commerce.senate.gov/public/index.cfm/consumerprotectionproductsafetyandinsurance>).

This paper argues that the focus on ag data ownership is rather unhelpful and, in some cases, unnecessary and distracting. Rather than tackle the legal complexities and uncertainties of the way in which the law approaches ownership of data, agricultural industries and their producers would be better served to think about the way in which their agricultural data and the data of their producers is collected, controlled and accessed and how to improve transparency and trust in the relationships between ag data contributors and aggregators.

## Australian Laws and Agricultural Data

The laws that impact on agricultural data in Australia range from non-existent to piecemeal and ad hoc. The two key areas of law that are most often referred to in the context of ag data ownership in Australia are privacy law and intellectual property law, particularly copyright law.

While many producers consider their agricultural data as something that is personal to their farming business, the Australian law of privacy takes a different approach. As the Productivity Commission states:

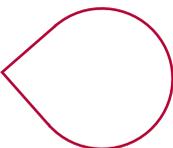
[A] common misperception is that privacy laws – or, indeed, the privacy policies of individual organisations – give individuals ownership over data created by or about them. Privacy legislation, the primary generic tool offering individuals some control, regulates how personal information is collected, used and disclosed. (Productivity Commission 2017, p. 53.)

Hence it is only personal information that is regulated by the *Australian Privacy Act 1988 (Cth)* and the *Australian Privacy Principles (APP)*. The Privacy Act defines personal information as:

Information or an opinion about an identified individual, or an individual who is reasonably identifiable: whether the information or opinion is true or not; and whether the information or opinion is recorded in a material form or not.

By contrast, non-personal information, such as business or commercial information and agricultural data, is generally governed by the law of contract. The distinction between what is personal information and what is non-personal is an important one for agricultural industries and their stakeholders to understand, as the privacy protections afforded by the Australian privacy regime do not extend to non-personal information.

To illustrate why the distinction is important, it is useful to give an example. For example, if data contracts between producers and agribusinesses contain terms that provide details about the



ownership, control, use, privacy and security of information gathered under the contract, the term ‘information’ may be referring to personal information rather than the agricultural data or information that may be collected under the contract. The protections that would apply under the contract to personal information would not necessarily apply to the agricultural and agronomic information and data collected.

Given that privacy law is currently not providing protections over the way in which agricultural data is collected, stored and shared, it is necessary to turn to intellectual property law; in particular, copyright law, as it is the primary means by which the ownership of agricultural data will be determined. Copyright ownership of data tables or data compilations grants the owner the right to exploit and commercialise the data. While copyright law does not protect information, ideas, or mere facts (ie single data points), a collection of data (data set) that results from some original contribution of the data aggregator may be protected under Australian copyright law as a table or compilation. While determining what is protectable under copyright law is a complex task, the most recent foray into the issues arising from the increasing use and availability of data in Australia by the Productivity Commission reiterated that the law in Australia is clear that the contributor of data is not necessarily the owner of the resulting data set (Productivity Commission 2017, p. 65). When applying this to agricultural data, it is clear that the producer as data contributor will not necessarily have rights, per se, in the resulting agricultural data set.

## Data Principles and Codes

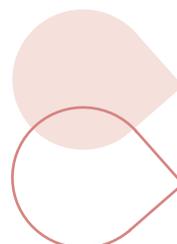
While the legal uncertainty around the ownership, control, and access of agricultural data has been gaining more and more attention in recent times, to date there has been little opportunity for close examination of these issues by the Courts and legislators. With the absence of clear guidance from the law, bold moves taken by some farming organisations (such as the American Farm Bureau’s *Privacy and Data Principles 2014* and the New Zealand Dairy Industry’s *Farm Data Code of Practice 2016*) have resulted

in the implementation of guiding principles that encourage best practice in the ownership, control, and access of agricultural data. These principles and codes aim to address the potential vulnerability of farmers and producers when their data leaves their farms (via service providers or new digital technologies). These principles and codes have attempted to instil confidence in producers – but unfortunately, while they have raised the profile of some issues arising from use of ag data, they have provided little headway in clarifying the legal position of ownership of the agricultural data derived from farms. The law and understanding surrounding the ownership, control, and access of agricultural data is still uncertain.

To ensure certainty on agricultural data ownership, some consider that the attention of the courts through litigation may offer resolution. To date, there has been almost no litigation that has specifically addressed the issue of who owns – and thus controls – the access to ag data. However, the dearth of legal scrutiny on concerns arising from current ag data collection practices, control and sharing may be at an end, thanks to a potentially landmark US case.

## The First Ag Data Case?

In what seems like the first true ag data case, a class action considering the potential harm caused by the alleged improper sharing of detailed processing data is currently before the Oklahoma Court in the US. A group of North American chicken farmers have sued some of the US’s biggest poultry processors, including Tyson Foods Inc. for allegedly conspiring to depress their payments. The farmers allege that a group of processors, including Tyson, Pilgrim’s Pride Co, Sanderson Farms Inc. and other companies, illegally agreed to share detailed data on grower pay to keep payments below competitive levels. As Todd Janzen observed, ‘At the centre of the growers’ claim is the allegation that the [processors’ system] of data aggregation was ineffective at anonymizing the data’, thus enabling processors to reverse engineer the data to help them determine the compensation paid to specific growers. This, in turn, is alleged to have led to price-fixing and suppression of grower

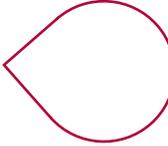




compensation (Janzen 2017). This is the latest of several accusations of improper collusion in the US chicken meat processing sector. In September 2016 a class action complaint was filed against poultry companies and ‘chicken integrators’ in Illinois. This class action, *Maplevalle Farms v Koch Foods*, alleges antitrust violations of section 1 of the US *Sherman Antitrust Act*. This Act declares behaviours in restraint of trade or commerce to be illegal and is structured in a similar way to Australia’s *Competition and Consumer Act 2010* (Cth).



While these cases are still ongoing – and interesting in their own right – what is more interesting for Australian producers is the fact that their US counterparts have taken steps to have some of their fears and concerns around the collection, control and sharing of their ag data addressed. The class actions are evidence of the growing concerns raised in the industry over the way in which agricultural productivity data is controlled and shared. However, it has little to do with ownership of the farm data and more to do with the nature of the tight contractual relationships in vertically integrated industries such as chicken meat production. Combined with producers’ lack of knowledge of the expansive rights being granted to ag data aggregators under their contractual relationships, this situation contributes to the genuine concern many producers have about the potential for abuse of power enabled by access to aggregated agricultural data.



In a number of Australian agricultural sectors or industries, companies own or control most aspects of the supply and production chain. The rapid adoption of digital technologies in these industries shows how crucial the basic contractual arrangements are to an understanding of how data can be, and is being, used in agriculture. It is useful to focus on these contractual relationships, as the data licences set out the rights of what agricultural data is collected from farms, how it is controlled, shared and accessed. Not only are the rights of access granted to third parties causing concern, but also attracting attention is the issue of whether data contributors themselves can access or move the data they contribute. As many producers

are unaware of the terms and conditions in the contracts they are signing up to when adopting digital technologies on-farm, producers are potentially left without a path to seek access to and use of their own farm data. Interestingly, the issue of data portability is one of the many issues arising from the increasing volume and value of data being generated, collected and aggregated that have attracted the attention of governments both in Australia and internationally.

## The Future of Data Management in Australia

The very issue of data contributors gaining access to data that is being collected and aggregated about them was the subject of deliberations of the Australian Productivity Commission, when tasked by the Federal Government to examine issues arising from the increasing use of data in Australia. In late 2016, the Productivity Commission was asked to:

- look at the benefits and costs of making public and private data sets more available
- examine options for collection, sharing and release of data
- identify ways consumers can use and benefit from access to data, particularly data about themselves
- consider how to preserve individual privacy and control over data use.

After considerable deliberations and consultations, the Productivity Commission released their final report, *Data Availability and Use in Australia*, in 2017. This is one of the first holistic enquiries into the issues arising from the collection and uses being made of the overwhelming amount of data that is being generated by the adoption of new digital and social technologies in Australia.

The recommendations made in the Productivity Commission report signal a significant change in attitude to the way in which the government expects companies, businesses and organisations to approach the management of data in Australia. The recommendations are aimed at creating a

cultural change in the way that data custodians manage the data they collect, and propose new institutional arrangements will promote trust and confidence in the data sharing and release system. While the proposals are far-reaching, one of the key recommendations is the introduction of a new comprehensive right for consumers (and small businesses) to access their data from government and private data holders alike, for the purposes of improving the services offered to them by alternative providers. The proposals, if implemented, will place significant responsibilities on those who collect and aggregate data, to have that data collected, managed and controlled in a more balanced and transparent way.

While the recommendations of the Productivity Commission report do not specifically address the control and sharing of agricultural data, the proposed consumer right to access data extends to small businesses (eg agricultural businesses), meaning that many of the observations made in relation to the way that data should be managed and accessed apply equally to the management of agricultural data. Commenting on the Productivity Commission's recommendations, the Australian Farm Institute's Executive Director Mick Keogh stated:

Clearly, the agricultural sector has the potential to capture significant benefits from the rapid growth in digital technology, and the recommendations made by the Productivity Commission have established a very good framework for the sector to ensure that both productivity and competition benefits are secured. That said, there will need to be detailed discussions about these issues involving a wide cross-section of the industry to ensure that the potential benefits are able to be secured by as many as possible, and that decisions about data rights and access do not create impediments for technology and software developers. (Keogh 2017)

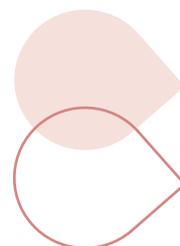
The subsequent establishment of a cross-portfolio Data Availability and Use Taskforce in response to the Productivity Commission's public inquiry reinforces the important shift in the attitude of government towards the way in which data should be managed and accessed in Australia more generally.

This proposed change of approach to data management in Australia is in line with

international developments in data management, such as the passage in the European Union (EU) of the *General Data Protection Regulation* (GDPR) in May 2016. When this legislation goes into effect on 25 May 2018, it will be the biggest change to data privacy in the EU for 20 years. The GDPR will require all companies – including international businesses – doing business with individuals located in EU member nation territories to comply with the law's far-reaching provisions. Among other changes, the GDPR empowers data contributors with new rights of access to data held about them and introduces a much broader notion of consent (ie the consent must be 'freely given' and 'purpose-specific' with clear evidence of agreement). While again, these changes impact upon the processing of personal information, they also are a good indicator of the general international shift in attention away from the rights of data aggregators, moving instead to the rights of data contributors to have more involvement with and rights of access to the data being collected about them.

In addition to the recommendations made by the Australian Productivity Commission in 2017, a new scheme of mandatory notification of data breaches was introduced into the Australian Privacy Act by the *Privacy Amendment (Notifiable Data Breaches) Act 2017*. The Notification of Data Breach scheme applies to all government agencies and organisations with existing personal information security obligations under the Privacy Act from 22 February 2018. This scheme introduces an obligation to notify individuals whose personal information is involved in a data breach that is likely to result in serious harm. The notification given must include advice and recommendations about the steps that should be taken in response to the breach. The Australian Information Commissioner must also be notified of eligible data breaches.

Again, while focusing on breaches of personal information, this development also impacts on those who collect and manage ag data more generally as often there will be personal information or data collected as part of more general data collection that takes place in agricultural contexts. The proposed legal reforms to both data and privacy in Australia will impact upon



the way in which data is managed more generally, which in turn will have far reaching ramifications for all industries, including the agricultural industry, on the way that data is managed.

## Conclusion

Lyria Bennett Moses argued in the paper ‘Recurring dilemmas: the law’s race to keep up with technological change’ that the best way to regulate new technologies is by regulating the human interaction action and use of the technology, rather than the technology itself. (Moses 2007). So rather than looking for clarity from the law in relation to ag data ownership, Australian agriculture can better manage the uptake of potential digital agriculture benefits by playing an active role in the ag data debates. A shift away from the question of ‘who owns agricultural data’ to a refocusing on a critique of the way in which data aggregators are collecting and managing agricultural data would align with the attitude shift towards a more transparent and trusted approach to the management of data that has occurred internationally. Put simply, there is a need to shift the narrative away from ownership to a more nuanced discussion about developing best practice in data governance, and to clarify the goals of good data management in order to achieve a more open culture of better control, access and benefit-sharing of Australian agricultural data.

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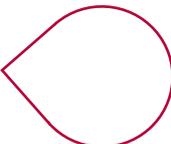
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*Maplevale Farms, Inc. v. Koch Foods, Inc. et al.* (Ill, no. 1:16-cv-08637, 2 September 2016).

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*Privacy Amendment (Notifiable Data Breaches) Act 2017*

## United States

*Sherman Antitrust Act* (US)

US Senate Subcommittee on Consumer Protection, Product Safety, Insurance, and Data Security hearing, *Technology in Agriculture: Data-Driven Farming* (2017), available at: <https://www.commerce.senate.gov/public/index.cfm/consumerprotectionproductsafetyandinsurance>

## European Union

*General Data Protection Regulation* (GDPR), available at: <https://www.eugdpr.org/>

## About the Authors

**Dr Leanne Wiseman** is an Associate Professor in Law at the Griffith Law School, Griffith University and Associate Director of the Australian Centre for Intellectual Property in Agriculture ([www.acipa.edu.au](http://www.acipa.edu.au)). Leanne researches and publishes in the areas of

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**Dr Jay Sanderson** joined the USC Law School in January 2015 as an Associate Professor. He has been a Research Fellow with the Australian Centre for Intellectual Property in Agriculture (ACIPA) since 2006. Jay has an international reputation in the areas of intellectual property law and agri-food. He has published with national and international publishers on food security, health, plant variety rights, genetically engineered animals and legal research.

Leanne and Jay were lead researchers in the legal stream of the Accelerating Precision Agriculture to Decision Agriculture (P2D) project. They co-authored *The legal dimensions of digital agriculture in Australia: an examination of the current and future state of data rules dealing with ownership, access, privacy and trust*. The P2D project is a partnership between all 15 of Australia's Rural Research and Development Corporations (RDCs), led by the Cotton Research and Development Corporation, and includes other research partners such as Data to Decisions CRC, CSIRO, the University of New England and Griffith University. This project is supported by funding from the Australian Government Department of Agriculture and Water Resources as part of its Rural R&D for Profit program.

**Lachlan Robb** is a Research Assistant in the Australian Centre for Intellectual Property in Agriculture, Griffith Law School, Griffith University. Lachlan has conducted research with Leanne and Jay on the Accelerating Precision Agriculture to Decision Agriculture (P2D) research project. Lachlan has published within the area of law and technology and he researches technological changes and advancements at the intersection of law. This has a particular focus upon the effects this has upon traditional conceptions of intellectual property, privacy, and ownership.

