Final report summary

Best practice litter management manual for Australian meat chicken farms
**Abstract**

Litter is a crucial resource and management requirement for the chicken meat industry in Australia and can be the most significant management practice influencing the performance of meat chicken farms. Good litter management is important because it optimises performance, reduces risks to meat chicken and human health, complies with biosecurity requirements and third-party accreditation schemes, and reduces the potential for environmental impacts. While there is a large amount of information covering litter management, it is often difficult to find or in a hard-to-understand format. This manual has been developed to make the relevant information regarding litter management available in one place.

This best practice manual covers: litter selection; management of litter in sheds, including reuse; and options for spent litter following removal from sheds. It has been structured in a manner that allows users to access concise information and guidance on the best management practice for each process involving litter.

**Outcomes/key findings**

This project produced a best practice management manual that covers: bedding and litter use in meat chicken production; including selecting and treating bedding materials; managing litter in sheds; reusing litter in sheds; and using spent litter. Key components of this manual include: information about how bedding type and management contribute to meat chicken health, human health, and amenity; details on specific litter issues and best practice management; a summary of industry practices and the role of litter for those without a background in chicken meat production; management guidelines for bedding materials; and a troubleshooting guide to define and address bedding and litter problems.

**Background**

Litter is most likely one of the largest operational investments on meat chicken farms. Litter management can affect meat chicken health, human health, odour and dust. Despite the issue being important for all industry participants, there hasn’t been a single point where information has been brought together and maintained in an up-to-date format. While the industry has done a large amount of work in this area, the results are documented in a variety of reports, scientific papers and guides without there being one document that synthesises this information and makes it applicable and relevant to the various industry participants. This Best practice litter management manual for Australian meat chicken farms collates this knowledge in one place.

**Research**

Current litter management best practices from across the world were reviewed for their applicability to Australian meat chicken production systems, and a best practice litter manual has been developed in consultation with key industry personnel and experts. An expert review and industry wide consultation was undertaken to gain feedback on the applicability of the best practice methods, currency of the science and final format of the manual.

**Objectives**

The objectives of the project were to:

1. Review and consult industry regarding best management practice for litter in all regions of Australia, based on Australian and overseas research and experience.
2. Develop a best practice guide for litter management covering all relevant topics.
3. Develop a troubleshooting guide detailing strategies to control major litter management issues.
4. Gain and review feedback from key industry stakeholders and industry experts and input that information into the guide.
5. Develop a prototype “next generation” solution for knowledge management around litter management using a web platform that allows users to access litter management information relevant to their region and management constraints. We envisage this platform could allow users to contribute to the knowledge base and provide examples or user-initiated extension materials (i.e. videos) relevant to litter management.

The bedding material and litter issues outlined in the manual contain a technical description of each issue and a summary of relevant research and literature. At the end of each section is a summary of best practice management actions.

A pilot web platform to demonstrate how the manual could be delivered to industry was also developed as part of this project.
Implications for industry

The authors acknowledge that the guidance in this document may be useful for those auditing management practices on farms. However, the measures are not intended to be used in a prescriptive manner or regulatory context. They are written to assist meat chicken growers and spent litter end users with best practice litter management options for selecting bedding type, in-shed litter management, reusing litter in sheds and spent litter use.

With this information collated as a single resource, it is recommended that this guide be regularly reviewed (at least every five years) and updated with the latest research, technologies and knowledge.

Publications

Best practice litter management manual for Australian meat chicken farms: Covering fresh, in-shed, reuse and spent litter management.

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