Benefits of using broiler chicken bedding derived from recovered urban wood

Background
Across NSW it is estimated that 330,000 cubic metres of bedding is utilised annually by broiler chicken growers. As the broiler industry is growing at approximately four per cent every year, demand for bedding is increasing. Traditional suppliers of bedding such as sawdust and wood shavings are reducing and prices are increasing.

140,000 tonnes of end-of-life timber pallets and crates are disposed to landfills in the Sydney Metropolitan Area each year. Much of this wood could be used for beneficial purposes such as broiler chicken bedding.

Key facts.
- Poultry farmers in Sydney require 4,000m³ per month of bedding.
- The poultry industry is growing at 4% annually resulting in increased demand for bedding.
- Traditional sources of bedding, such as sawdust and wood shavings are increasing in cost and are becoming scarcer.
- 140,000 tonnes of end-of-life timber pallets and packaging are disposed in landfill in Sydney annually.
- Most of this wood packaging is clean and can be readily shredded into good quality bedding.

Between 2010 to 2012 the NSW Environment Protection Authority (EPA) have funded a series of trials on growers farms which used clean shredded wood pallets and packaging and other wood offcuts (urban wood) as bedding. This case study discusses a trial which was conducted on a poultry farm owned and operated at Ingleburn in June 2012.

This fact sheet has been prepared to highlight opportunities for broiler growers to use bedding derived from urban wood produced to the Specification for the Supply of Recycled Urban Wood for Broiler Chicken Bedding.

The process
The grower’s farm is owned by Mr Andy Grima. Mr. Grima is under contract to grow broiler chickens for Cordina Chicken Farms who have a processing facility at Girraween in Sydney's western suburbs. The farm has four sheds and does not require an Environment Protection Licence.

Mr Grima was supplied with bedding produced by Direct Pallets (sold as Direct BioBedding) from urban wood such as clean wood pallets. The process from manufacturing and using the bedding through to disposal is detailed below.
- Clean wood pallets and packaging were sourced and shredded by Direct Pallets according to the Specification for the Supply of Recycled Urban Wood for Broiler Chicken Bedding and associated Quality Control Guidelines
- 70m³ of bedding material was supplied by Direct BioBedding to the farm in a 70m³ covered walking floor.

Benefits
Mr Grima found that the quality of Direct BioBedding was much better than traditional bedding material such as shavings and sawdust. He calls it "gold". Benefits include:
- Price is competitive
- Quality is high compared to regular bedding materials.
low moisture content compared to shavings delivered by his regular supplier
- easily spread and produces little dust
- The bedding provides a soft and insulating surface for chickens which also absorbs manure and moisture
- Used bedding was able to be sold as a soil conditioner or fertiliser.

Both the lack of physical contaminants and the low moisture levels were noted as positives for this bedding. The particles were also a nice size which prevented any clumping but also meant there were no particles that where too big after the batch was finished which prevented the used bedding being on-sold to turf growers.

By using quality urban wood as broiler chicken bedding, broiler growers can also make a positive contribution to the environment. It is estimated that 0.67 tonnes of carbon dioxide is saved for each tonne of timber packaging diverted from landfill.3

Conclusion

Andy Grima is happy to keep using the bedding (supplied under the registered trade name Direct BioBedding®). He liked it so much he recommended it to his father who is also a grower in the area, and they too have since received walking floor loads from Direct BioBedding.

Note on the Specification, Quality Guidelines and Exemptions

To assist with producing bedding that meets the requirements of the poultry industry, field trials were undertaken and a Specification for the Supply of Recycled Urban Wood for Broiler Chicken Bedding and associated Quality Control Guidelines developed by the Timber Development Association with support from the EPA. Input has been provided by poultry growers, chicken meat processors and timber recyclers.

The Specification details acceptable particle size, moisture content, sampling and testing regime. The Quality Control Guidelines provide a step by step guide to the bedding production process.

Direct BioBedding helped develop and they thus use the Specification and Quality Control Guidelines to ensure that the material they produce is acceptable to all parties. This gives them confidence to also supply a Litter Declaration with bedding delivery to comply with food safety and biosecurity regulations and practices.

All wood accepted for production into poultry bedding must meet the relevant Resource Recovery exemptions approved by the EPA. This includes the Raw Mulch Exemption 2008. Details on exemptions can be found at www.environment.nsw.gov.au/waste/generalRRE.htm

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More information

More information on the Specification for the Supply of Recycled Urban Wood for Broiler Chicken Bedding and associated Quality Control Guidelines can be found on the National Timber Product Stewardship Group website www.timberstewardship.org.au

References


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