



Safe hay transport

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Large loads of hay are a common sight on our roads this season, and with large bales weighing from 350 to 700 kg each, safe transport of these loads is paramount.

Load security is an important issue. In the main, hay carriers are careful about how much hay is loaded and how it is secured, but all hay and straw producers need to ensure that their loads are secured and transported safely.

Making hay bale transport safer

The key to improving load stability of hay trucks is to ensure that the bales are dense and even, packed well and secured correctly. Dense bales hold their shape and are more stable in transport and storage. Hay machinery should be adjusted to ensure that bales are tight and uniform. Bales should be stacked onto trucks so that they are locked together where possible.

Hay transport regulations

All loads must also comply with safety and transport regulations. Currently, there are exemptions to the load limits in NSW, so that hay bales can be carried up to 4.6 m high and 2.83 m wide during the drought, depending on the type of truck and providing other directions are followed.

Provided they are correctly secured and the load limit is not exceeded, trucks can be loaded up to:

- four bales high for large square bales (4'x 3'x 8') on a drop deck trailer
- three bales high for 4'x 4'x 8' square bales or large round (5'x 4') bales.

Visit the NSW RTA website <www.rta.nsw.gov.au> or the Australian Fodder Industry Association (AFIA) website <www.afia.org.au> for full details.

Note that load dimensions and restraint limits currently vary from state to state, so if travelling interstate, it is important to know the regulations for each state.

New load restraint system

Recent research commissioned by AFIA and the Rural Industries Research and Development Corporation (RIRDC) examined loading patterns and restraint methods on hay trucks. The researchers conducted tilt tests with trucks and computer simulations to determine the stability of loads and the best load configurations.

Rollover stability of loads varied depending on bale type, stacking arrangement, vehicle configuration and load restraint method. Large square bales were found to have more than twice the rigidity of round bales at 4.6 m high, while tri-axle trailers were more stable than tandem axles.

This work produced a safer alternative restraint system for carriers which can be used in all states, provided copies of the reports of the project are carried in trucks. The two reports:

- Testing and simulation of hay bale loading on semi-trailers
- Further testing and simulation of hay bale loading on semi-trailers

are available from RIRDC (www.rirdc.gov.au) and AFIA.

Critically, these reports have shown that the use of steel angles, rear gates and mid-load straps are not necessary to comply with the load restraint guidelines set down by the National Transport Commission.

By adopting the AFIA loading guidelines for large square and round bales, carriers can be assured that they are complying with regulations and applying the latest and safest transport practices for hay and straw. A key component of these new guidelines is the diagonal positioning of the load binder straps. 🌿

Further information

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Figure 1: A tilt test in progress. Photo AFIA.