



## **Agricultural vehicle safety on the road - assessing priorities in relation to other large vehicle types** □

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Large passenger vehicles, goods vehicles and other large vehicles, such as agricultural vehicles and mobile machinery, make up a relatively small number of the vehicles on the roads in the UK. However, in general they are involved in greater numbers of accidents than the numbers of vehicles registered would suggest and, due to their size and weight, those accidents are more frequently fatal or result in more congestion and/or property damage than those involving other vehicle types. Large vehicles may, therefore, represent an important area for future casualty reduction efforts in relation to the 2010 casualty reduction targets and beyond. To help identify and prioritise the potential for further worthwhile reductions, DfT commissioned TRL to review previous and current research and regulatory activity, and to establish the most cost-effective means of improving the safety of these vehicles. The project has focussed on issues related to the construction of large vehicles, but has also considered other areas relevant to their use.

The aims of the project were:

- To determine how previous research and resulting measures have performed;
- To identify and prioritise current issues; and
- To propose where best to target resources to deliver further worthwhile casualty savings.

The vehicles of interest (VOI) for the purpose of this research are defined as:

- Heavy goods vehicles (HGVs) – goods vehicles with a gross vehicle weight of more than 3.5 tonnes;
- Light commercial vehicles (LCVs) – goods vehicles with a gross vehicle weight of up to 3.5 tonnes inclusive;
- Large passenger vehicles (LPVs) – passenger vehicles with more than 16 passenger seats;
- Minibuses – passenger vehicles with 9 to 16 passenger seats;
- Agricultural vehicles;
- Other motor vehicles (OMVs) – vehicles that are not classified as agricultural vehicles, goods vehicles or passenger vehicles such as refuse lorries, mobile cranes, fire engines etc.

The research consisted of three phases and the data presented is taken from the second phase of the project. Phase two identified the current accident patterns involving the VOI using the STATS19 database and produced a ranked list of casualty groups with respect to the cost associated with the killed and seriously injured casualties to show the relative importance across the different VOI and road user types. Detailed analysis of accidents involving each VOI was carried out and the key characteristics of accidents involving agricultural vehicle are presented. The analysis of STATS19 and the Heavy Vehicle Crash Injury Study (HVCIS) Fatal Accident Database is supplemented by data and photographs from the News Cuttings Database which is compiled by Richard Gard Associates as part of the HVCIS project funded by the Department for Transport.

This presentation reports on the relative importance of agricultural vehicles in comparison to other types of large vehicle involved in on-road accidents.

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The conclusions of the research in terms of agricultural vehicles are:

- Accidents involving agricultural vehicles appear much lower in the ranking of casualty groups than those involving HGVs, LCVs and LPVs;
- In terms of meeting casualty reduction targets, agricultural vehicles are a lower priority than other vehicle types;
- Cost effective countermeasures are still possible;
- The importance in the UK is comparable to the EU average;
- Protecting car occupants (#47), TWMV users (#67) and agricultural vehicle occupants (#69) is most important;
  - Defects, particularly brakes, are important to all groups
  - Turning right is important, particularly for TWMV users
  - Rollover and seat-belt use are important for agricultural vehicle occupants
- Braking may become a more important issue with increased speed, if higher speed tractors are permitted or result in reduced compliance with the existing speed limits. Improved standards may be implemented in EU regulation.