Research was conducted to assemble data on the estimated frequency, severity and primary causative factors associated with injuries and fatalities involving confined spaces in agriculture. Data were collected by reviewing cases from previously conducted research, local and national media (both on-line content and print sources), and published reports.

Based on a review of literature, no prior studies were found that either addressed the overall frequency, severity and causative factors of agricultural confined spaces or defined what clearly constituted an agricultural confined space.

A total of 1255 cases were identified that occurred in the United States between 1964 and 2010 that fit the definition of an agricultural confined space, as defined by the Committee on Agricultural Safety and Health Research and Extension for the North Central Region (NCERA-197). Data was collected on factors related to these agricultural confined spaces, to include the following: type and classification of facility (i.e. commercial grain storage, OSHA-exempt dairy manure storage, etc), agent of injury (i.e. grain bin, above-ground manure tank, feed storage tank, etc), age and gender of victim(s), geographic location of incident, severity of incident.

Grain storage facilities accounted for 71.0% of cases, manure storage structures accounted for 10.5% of cases, agricultural transport vehicles accounted for 9.2% of cases, forage storage structures accounted for 5.7% of cases, and all other cases accounted for 3.6%.

Males accounted for over 96% of all confined spaces-related cases and over 65% of cases resulted in a fatality. Where age was known, the average age of a victim was 38 years old, and youth under the age of 16 accounted for nearly 20% of cases.

Based on the findings and conclusions, recommendations for future education, engineering, and enforcement strategies are provided.