Work-related Farming Fatalities

Although there have always been farming fatalities, the mechanization of the farm has contributed to an increase in farm-related deaths. Farm equipment and implement manufacturers have recognized the need for safer machinery and have placed into service many safety features such as power take off (PTO) shields, automatic transmission lockouts upon startup (neutral start), and rollover protection structures (ROPS). These features have saved lives and will continue to save lives as long as individuals are vigilant and pay attention to safety precautions. If the farm operator lets his or her guard down for a moment because of fatigue or haste, tragedy can result.

Between 1992 and 1999, Illinois farm workers had a total of 268 work-related deaths, resulting in an annual fatality incidence rate of 45.8 fatalities per 100,000 farm operators (with the number of farm operators assumed to be at the 1997 level). Based on national numbers for this time period, the state should have expected 251 fatalities. Although Illinois experienced a higher number of fatalities, the difference was not statistically significant (mortality ratio = 1.07; 95% confidence intervals = 0.94, 1.21).

The summer months, which typically are the busiest time for farm operations, corresponded to higher occurrence of fatalities (Chart 1) than the rest of the year. Farmer activity at the time of death shows that 66 percent of the fatal incidents were related to operating, riding, or driving vehicles (Chart 2). Forty-five percent of the 268 farm fatalities were attributable to farm transportation with the most frequent events being non-highway vehicular accidents (Chart 3). The vehicles involved in these fatal incidents included cars, trucks, all terrain vehicles, and tractors. Tractor rollovers caused 22 percent of the farming deaths (Chart 4) and half of these were the result of operating on a hillside while mowing, brush clearing, or conducting other tasks.

Can anything be done to prevent these deaths? The answer is yes. Farmers and farm workers should study manufacturers’ operation manuals for all equipment, be familiar with the tipping limits of the tractors, and be mindful of safety precautions before starting a task.

Many older tractors are not equipped with the latest safety devices such as ROPS or seatbelts. Equipping older machines with these devices may be costly considering the value of the tractor, but they can save a person’s life. Many tractor manufacturers have retrofit kits available for most models going back to the 1960s; some have kits for earlier versions. If a retrofit kit is placed on the tractor, then the operator has to use the seat belt because ROPS without seatbelt use does not prevent fatalities.


- Vehicular operation (65.80%)
- Machinery repair (10.39%)
- Logging (6.93%)
- Animal husbandry (4.33%)
- Loading (1.30%)
- Unknown (11.26%)


Chart 3. Farm Fatalities in Illinois 1992-1999, by Event or Exposure

Chart 4. Farm Transportation Fatalities
Illinois, 1992 - 1999, by Incident