

INCENTIVE-BASED AGRICULTURAL HEALTH AND SAFETY PROGRAMS: A REVIEW AND HISTORICAL DEVELOPMENT OF THE CERTIFIED SAFE FARMS PROGRAM

Kelley J. Donham, Risto Rautiainen, Kendall Thu, Natalie Roy, Carol Hodne,
Sara Schneiders, Phoebe Juel, and Michael Rosmann, LaMar Grafft

For presentation at the NIOSH Agricultural Health Centers Conference
April 28 – 30, 2000

Iowa's Center for Agricultural Safety and Health, and the Great Plains Center
for Agricultural Health, the University of Iowa

Certified Safe Farm, (CSF) is an incentive-based program aiming to reduce injury and illness on the farm. The University of Iowa researchers developed the concept in 1995. The project is funded by NIOSH, Pioneer International Hi-Bred, the Iowa Pork Producers, and the National Pork Producers Council. This intervention study studies health and injury outcomes on at least 125 intervention farms and 125 control farms.

Intervention farmers complete a clinical health screening (targeted to agricultural health problems), education tailored and specified for the specific farm and farm family, and an on-farm safety review. The farm operation must receive a score of 85% overall and at least 75% in all sections of the checklist. Reviewing 38 existing farm safety checklists developed the CSF checklist. Five agricultural health and safety experts evaluated potential questions based on five aspects: frequency and severity of injury/illness caused by the problem in question, working time and cost required to correct the problem, and effectiveness of the intervention. A priority score was calculated and used for eliminating some questions and constructing a weighted value (1=least important, 4=most important), for the remaining questions.

Two farmer-consultants were trained to conduct on-farm safety reviews. They observed hazards and assign safety ratings for applicable questions (0=safe, 1=borderline, 2=unsafe). Hazard points for each question are calculated by multiplying this rating by the weighted value of the question. The final passing score is computed from observed hazard points and maximum applicable hazard points for each section of the checklist and the entire farm. The farm receives a summary statement with recommended improvements. During the first year of the study, 134 farms were reviewed. 110 farms (82%), were certified, and 24 (18%), failed to receive a satisfactory score. The reasons for failing included problems with tractors, front-end loaders, skid-steer loaders, and a variety of other items.

The health and safety outcome to date (after one full year of data) indicates that the intervention farmers have significantly fewer serious injuries than the control farmers do. This was exaggerated when looking at

those injuries where medical attention was required. Regarding health problems, the controls, when compared to the intervention group reported significantly higher prevalence of the following conditions: Days of back pain (470 for controls, and 273 for intervention), muscle pain (487 for controls, and 433 for intervention), depression (543 for controls, and 502 for intervention) and days of a flu-like illness (543 for controls, and 502 for intervention).

The overall experience of the certification process was positive. However, there are some minor changes being intervened for the second round. The study is scheduled to continue through 2003.