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Farm Equipment-Motor Vehicle Crash Prevention Conference (FEMVCPC)

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CONFERENCE PLENARY SUMMARIES

Farm Equipment-Motor Vehicle Crash Prevention Conference (FEMVCPC)

Robert E. Petrea, PhD
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ABSTRACT. This plenary talk at the eighth annual Midwest Rural Agricultural Safety and Health Forum, November 2009, described a conference held earlier in the year focusing on the hazards and risks associated with moving agricultural equipment on public roads. The Farm Equipment-Motor Vehicle Crash Prevention Conference (FEMVCPC), March 2009, Des Moines, Iowa, drew 54 participants representing 13 states for presentations and discussions. Data showing that over 1100 farm equipment-motor vehicle crashes occur annually in the Great Plains Center for Agricultural Health's nine-state region document agricultural producer stated concerns. The conference format allowed for presentations from a wide range of perspectives and provided discussion time for caucusing at two levels. The first level involved caucus by specialty (e.g., state agencies, sheriff/highway patrol, driver educators, farmers, retailers/manufacturers). The second level caucuses gathered individuals from their respective states to consider what is being done and what could be done relative to each area identified in the first level caucuses. The final product of the conference was a specific action plan each state group would advocate and bring forward in their state. On-site and 6-month follow-up evaluations with each state group indicated that the conference content increased participant knowledge and provided them with new content to use in current and future state programs. As important is the finding that participants have used conference content to foster interest, new collaborations, and specific project planning related to agricultural roadway transportation issues.

KEYWORDS. Conference, farm equipment and motor vehicle crashes, state action plans

The Farm Equipment-Motor Vehicle Crash Prevention Conference (FEMVCPC) was held March 17–18, 2009, in Des Moines, Iowa, with funding from Great Plains Center for Agricultural

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Health (GPCAH) and additional direct or in-kind funding from 12 other entities.

Conference objectives were:

- Facilitate presentation of information and data relevant to the region.
- Provide a forum among diverse stakeholders interested in safely moving farm equipment on public roadways.
- Enable each state's contingent to create action plans with facets tailored for their state.
- Produce recommendations for research, data acquisition, programs, and training.
- Reach consensus on specific goals and measurable outcomes for the region.

The agricultural producer community asked that some attention be given to this issue. Data show nearly 100 fatal crashes occur annually nationwide between farm equipment and motor vehicles.¹ Crash data also show such crashes are five times more likely to result in a fatality.² There are more than 1100 farm equipment-motor vehicle crashes annually in the GPCAH nine-state region. In addition, priority concern for public roadway transport of farm equipment was documented in the National Institute for Occupational Safety and Health's (NIOSH) National Occupational Research Agenda (NORA) and the National Land Grant Research and Extension Agenda for Agricultural Safety,³ which made this topic the first of its 12 agricultural safety and health action priorities on which to develop a corresponding white paper.⁴ These considerations, as well as regional advisors to the GPCAH, supported a specific emphasis on this topic.

The concept of a special invitation conference arose as a proven format for providing information and allowing facilitated discussions among stakeholders. This allowed shared knowledge and actions addressing this important issue.⁵⁻⁷ The GPCAH Regional Advisory Committee (RAC) and the major agricultural safety and health organizations in the region were represented at the meeting. RAC members assisted the project manager as key informants⁸

in identifying agencies and organizations to participate in the conference, as facilitators for the conference⁹, and as local contacts.

Fifty-four participants representing 13 states participated, including individual farmers (6), emergency medical technicians (2), representatives from county sheriff's offices and state police (10), state cooperative extension service personnel (8), state department of transportation, motor vehicle or highway traffic safety representatives (9), Farm Bureau officials (3), state driver education association leaders (3), farm safety research and programming organization staff, conference hosts, and a commercial vehicle driver training association executive.

The special invitation conference is an open system environment conducive for task oriented groups to make decisions directed at reaching identified goals.¹⁰ The Nominal Group Process¹¹ facilitated discussions among groups on two levels. The first level involved caucus by specialty (e.g., state agencies, sheriff/highway patrol, driver educators, state agencies, farmers, retailers/manufacturers). A facilitator for each group assisted the caucus in identifying perceptions of the most important concerns and factors contributing to farm equipment-motor vehicle crashes. Each caucus then chose its three most important concerns/factors and discussed ways to effectively address them. Notes from each caucus group were transcribed by the project manager using a content analysis method¹² to draw important features from the discussions. The transcribed notes from each group were given to all participants prior to the second level caucus.

The second level caucuses gathered individuals from their respective states to consider what is being done and what could be done relative to each area identified in the first level caucuses. Their assignment was to determine what specific actions they would advocate doing in their state. The results from these discussions became that states' plan of action. Nine out of the 13 states represented (ND, SD, NE, KS, IA, IL, MN, MO, and NC) left the conference with an action plan in hand at some level of refinement.

The action plans from each state were shared with all participants. Plans contained a variety of

activities and projects. An example of program development included using conference content to attract the attention of state agencies. Networking and coordination of resources within and across state boundaries were additional outcomes of this conference. Other specific activities included efforts directed at state driver education associations to encourage additional information on the topic in local driver education curricula and expanded efforts by county sheriffs working with county extension offices and Farm Bureaus to develop public service announcements. A Web site for electronic conference proceedings would serve as a collection point and information reservoir for data, products, and activities relating to the farm equipment-motor vehicle crash prevention issue (<http://www.agsafetyandhealthnet.org/femvcpc.htm>).

Evaluation of the conference included on-site observation of important conference processes¹³ and a 4-month postconference outcome-oriented survey¹⁴ with each state to assess progress on the action plans. The summary of on-site evaluations for the overall conference and individual speakers showed 90% of participants agreed that presentations were useful, participant knowledge of factors related to farm equipment-motor vehicle crashes increased, time was well spent, and using working groups was a good strategy.

The 6-month follow-up survey results were subjected to content analysis to delineate common groupings, which resulted in three broad categories:

1. *Coordinated activities planned and completed:* e.g., Iowa's creation and distribution of Prevention Tips/Share the Road pocket card reminders at historical and new locations.
2. *Expansion of current activities/processes:* e.g., Illinois Sherriff's Association development of additional agricultural power unit questions to capture data that will supplement the standardized Illinois Department of Transportation Crash Report.
3. *New networking /coordinated activities planning within a state:* e.g., East Carolina

University computer science students meeting to develop virtual simulations of farm equipment-motor vehicle crashes for use in training.

CONCLUSIONS

- Conference content increased participant knowledge and awareness of issues and activities.
- The conference provided participants with new content for use in current and future state programs.
- Participants have used conference content to foster interest, new collaborations, and specific project planning related to agricultural roadway transportation issues.
- Many activities will take dedication and active interest from nonconference participants over the long term to bring the activities to fruition.
- The lack of formal evaluation for specific activities in participating states precludes more accurate statements on the impact of their activities.
- The Web site has not yet fulfilled its anticipated role, but remains a work-in-progress.

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