

**PROJECT PI**

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**PROJECT TITLE**

A Conference on the Aging Farm Community: Using Current Health and Safety Status to Map Future Action

November 9, 2009

**FINAL PROJECT REPORT**

IR13OH009184-01 REVISED

Budget Period: 03.01.2007 – 08/31/2008

Project Period: 03/01/2007 – 08/31/2008

## PROJECT ABSRACT

**Project Title:** *A Conference on Aging Farmers: Using Current Health and Safety Status to Map Future Action.*

**Goal of the Project:** To publish a document that summarizes the health and safety status of aging farmers in the United States and makes specific targeted recommendations for future action in research, health related practices, prevention education and outreach, and public policy. The conference portion, with invited participation, is planned for alternating sessions of oral presentations on topics deemed pertinent by the Conference Planning Committee. Each oral session will be followed by workgroup discussion activities using the *Nominal Group Technique* over the 2½ days. Participants will include agricultural safety and health professionals from academics, public health, cooperative extension, primary and secondary health providers, state and federal agencies, and farm organizations as well as at least 20% of participants being active farmers aged 55 and over. Invited participants will have travel, lodging and meal costs covered. The proceedings document will be based upon the presentations and workgroup processes and reviewed by the project advisory committee for accuracy and will be available in both paper and electronic copies.

**Background:** As farmers 55 and older, both men and women, are the majority community within farming, as well as holding the vast majority of the wealth contained within production agriculture, a concerted effort to document the current injury and health status of older farmers, defined as those 55 years old or older, either male or female has been lacking to date. This is counter intuitive since the average age of farmers continues to rise, the only age category in the Census of Agriculture that has risen significantly since 1992 is farmers over age 70 and for example the average age of farmers in Illinois is over 55 and in Iowa over 65. The average age of women farm operators is shown to be even higher. It is not uncommon for farmers to work well into their 70's and 80's, some due to desire, others due to lack of liquid capital, lack of pension income and the ongoing need for labor on the farm. The scant research available indicates that male farmers face an increased average fatality rate with the injury rate unknown, and injury and fatality data on women is mostly lacking due to the "invisible" role of women as well as the differentiation of tasks that routinely take place farms. Finally, while much is known about many impacts on aging bodies; increased health difficulties, increasing disease status, and increase use of medications; little is known of the specific impacts of these changes on the risks of non-fatal or fatal injuries connected to agricultural tasks. At the National Occupational Research Agenda hearings concerns of the aging farm population was offered in both verbal and written form.

### Conference Objectives:

- 1) Facilitate the presentation of informed opinions regarding the current status of agricultural safety and health as regards older farmers.
- 2) Provide a forum for discussions on the future research, education, training, and programming needs of agricultural safety and health as regards older farmers.
- 3) Afford practicing older farmers an opportunity to give their opinions on and their appraisal of the agricultural safety and health environment in which they work.
- 4) Foster the development of recommendations on future agricultural safety and health policy related to older farmers by laying a foundation of information and opinion upon which to build those recommendations.

**Conference Processes:** The planning committee consisted of 12 individuals representing 7 academic institutions (1 Canadian), NIOSH, and the Canadian Ag. Safety Association. Process evaluation findings indicate that planning committee members consider the project worthwhile, that the conference met the objectives of the planning committee, and that follow-up after the conference may be needed.

A total of 40 participants attended the conference in March, 2007 with representation from 11 academic institutions (1 Canadian), 5 NIOSH Ag Research Centers, 9 practicing farmers (Vermont, New York, Ohio, West Virginia, Texas, Illinois, California) and 4 other entities (American Farm Bureau Federation, Illinois Farm Bureau, Easter Seals of Iowa, and Agriwellness, Inc.)

Outcome evaluation findings from the question “To what extent did this session enhance your understanding of the topics presented?” using a four place semantic differential response with 4 = Very Much on one end and 1 = Very Little on the other end yielded a an overall ranking of all presenters of 3.48. Outcome evaluation findings revealed that respondents indicated, each with a 96% score, that all four conference objectives had been reached.

### **Key Findings**

1. Aging farmers are worth the time, energy and expense to develop the appropriate strategies and the interdisciplinary collaboration needed to inform and facilitate efforts toward changing unsafe attitudes and behaviors. A prime example would be the development of recommendations to assist this population in selecting tasks that are suitable given their current physical and medical status.
2. Methodologically sound evaluations are needed to provide evidence that health screenings actually result in farmers entering the care system and getting follow-up treatment.
3. The area of sleep management, sleep loss and the build up of sleep debt as well as the impact of all three as a potential contributor to injury incidents needs to be publicized within the aging farm community as well as incorporated into programs directed at this population.
4. Researchers as well as practitioners working with the aging farm community should build institutional alliances with gerontological societies, societies on aging and direct-providers of disability services to facilitate their work and distribute their findings.
5. Educational needs related to the aging farm community are present at all health care provider levels. Primary activities should include the development of integrated rural training programs and the strengthening of interdisciplinary integration within existing programs.

## SECTION 1

### Highlights/Significant Findings

#### Highlights

A total of 40 participants attended the conference in March, 2007 with representation from 11 academic institutions (1 Canadian), 5 NIOSH Ag Research Centers, 9 practicing farmers (Vermont, New York, Ohio, West Virginia, Texas, Illinois, California) and 4 other entities (American Farm Bureau Federation, Illinois Farm Bureau, Easter Seals of Iowa, and Agriwellness, Inc.)

#### Research Findings

1. Aging farmers are worth the time, energy and expense to develop the appropriate strategies and the interdisciplinary collaboration needed to inform and facilitate efforts toward changing unsafe attitudes and behaviors. A prime example would be the development of recommendations to assist this population in selecting tasks that are suitable given their current physical and medical status.
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5. Educational needs related to the aging farm community are present at all health care provider levels. Primary activities should include the development of integrated rural training programs and the strengthening of interdisciplinary integration within existing programs.

#### Evaluation Findings

Outcome evaluation of the conference meeting its objectives revealed:

1. Facilitate the presentation of informed opinions regarding the current status of agricultural safety and health as regards older farmers.

*96.2% of participants agreed reached*

2. Provide a forum for discussions on the future research, education, training, and programming needs of agricultural safety and health as regards older farmers.

*96.4% of participants agreed reached*

3. Afford practicing older farmers an opportunity to give their opinions on and their appraisal of the agricultural safety and health environment in which they work.

*96.2% of participants agreed reached*

4. Foster the development of recommendations on future agricultural safety and health policy related to older farmers by laying a foundation of information and opinion upon which to build those recommendations.

*95.6% of participants agreed reached*

#### **Translation of Findings**

The *Research Findings* section above are straightforward in their recommendations on specific research as well as suggestions for collaborative partners that could assist in broadening and deepening research and practices related to the aging farmer community. The *Evaluation Findings*

above indicate that conference participants agreed that the conference met its stated objectives and that the conference sessions offered enhanced their understanding of the various topics presented. The overall evaluation scores that the conference was a useful tool in enhancing understanding and bringing forth to a larger community the issues and concerns related to the health and safety of the aging farm community.

### **Outcomes/Relevance/Impact**

The *Conference on the Aging Farm Community: Using Current Health and Safety Status to Map Future Action* Research Findings address the question “How can the findings of this conference guide future investigations and research?” with recommendations on future research topics and potential collaborative partners that could be useful in such research. Outcomes from such research and collaborative relationships have the potential to provide data, evaluations and enhanced field practices that could be used to address both the unique perceptions of aging farmers as well as specific work situations common to their environment that in the end would reduce the rate and severity of injuries and illnesses found in this community.

## **SECTION 2**

### **Scientific Report**

**Background:** As farmers 55 and older, both men and women, are the majority community within farming, as well as holding the vast majority of the wealth contained within production agriculture, a concerted effort to document the current injury and health status of older farmers, defined as those 55 years old or older, either male or female has been lacking to date. This is counter intuitive since the average age of farmers continues to rise, the only age category in the Census of Agriculture that has risen significantly since 1992 is farmers over age 70 and for example the average age of farmers in Illinois is over 55 and in Iowa over 65. The average age of women farm operators is shown to be even higher. It is not uncommon for farmers to work well into their 70's and 80's, some due to desire, others due to lack of liquid capital, lack of pension income and the ongoing need for labor on the farm. The scant research available indicates that male farmers face an increased average fatality rate with the injury rate unknown, and injury and fatality data on women is mostly lacking due to the “invisible” role of women as well as the differentiation of tasks that routinely take place farms. Finally, while much is known about many impacts on aging bodies; increased health difficulties, increasing disease status, and increase use of medications; little is known of the specific impacts of these changes on the risks of non-fatal or fatal injuries connected to agricultural tasks. At the National Occupational Research Agenda hearings concerns of the aging farm population was offered in both verbal and written form.

### **Conference Objectives:**

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4. Foster the development of recommendations on future agricultural safety and health policy related to older farmers by laying a foundation of information and opinion upon which to build those recommendations.

## Procedures/Methodology

The conference portion, with invited participation, is planned for alternating sessions of oral presentations on topics deemed pertinent by the Conference Planning Committee. Fifteen presentations were made by individuals representing 13 different academic, governmental or farmer-supported entities. Each oral session will be followed by workgroup discussion activities using the *Nominal Group Technique* over the 2½ days. Facilitators will guide discussions that allow all participants an opportunity to contribute to the formulation of the consensus. This consensus, along with the content of the presentations is used as a basis to develop specific conference findings that could be taken to fill gaps in and address the needs of the aging farm community related to health and safety.

Outcome evaluation findings from the question “To what extent did this session enhance your understanding of the topics presented?” using a four place semantic deferential response with 4 = Very Much on one end and 1 = Very Little on the other end yielded a an overall ranking of all presenters of 3.48. Outcome evaluation findings revealed that respondents indicated, each with a 96% score, that all four conference objectives had been reached.

Outcome evaluation of the conference meeting its objectives revealed:

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*96.2% of participants agreed reached*

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## Publications

### WWW Site

The complete conference proceedings, including conference program, agenda, presentation files, corresponding audio files, presentation papers, as well as the audio of the separate 45-minute comment/discussion time can be found at <http://www.agsafetyandhealthnet.org/Conferences.html>.

### Journal Articles

Following completion of the conference an offer was received from the Journal of Agromedicine to publish an edition containing only papers related to presentations made at the conference. Consensus of the Conference Advisory Committee indicated that publishing papers relating to the conference in a peer-reviewed journal would increase the validity of the conference. As well, a peer-reviewed journal that is listed on the major literature search sites could provide the potential for additional circulation of conference content than would occur with a stand-alone publication.

Petrea RE (2008): A Conference on the Aging Farm Community: Using Current Health and Safety Status to Map Future Action . Forward. *Journal of Agromedicine* 13 (2) 67-68.

Reed D (2008) America's Aging Farmers: Tenacious Positive, and Underresearched. Editorial. *Journal of Agromedicine* 13 (2) 69-70.

Reed D, Rayens M, Winter K, Zhang, M (2008) Health Care Delay in Farmers 50 Years and Older in Kentucky and South Carolina. *Journal of Agromedicine* 13 (2) 71-80.

Cole H, Donovan T (2008) Older Farmers' Prevalence, Capital, Health, Age-related Limitations , and Adaptations. *Journal of Agromedicine* 13 (2) 81-94.

Mitchell J, Bradley D, Wilson J, Goins R (2008) The Aging Farm Population and Rural Aging Research. *Journal of Agromedicine* 13 (2) 95-110.

Peters K, Gupta S, Stoller N, Meuller B (2008) Implications of the Aging Process: Opportunities for Prevention in the Farming Community. *Journal of Agromedicine* 13 (2) 111-118.

Gregory J (2008) Sleep: A Good Investment in Health and Safety *Journal of Agromedicine* 13 (2) 119-131.

### **Inclusion of Gender and Minority Study Subjects**

The Conference Advisory Committee reached consensus on which researchers were working in the area and which set of researchers should be invited to present the broadest view of the aging farm community. Content of the presentations included reference to women farmers and minority farmers, the lack of data currently known about these populations as well as specific recommendations in separate presentations to address the lack of data.

### **Inclusion of Children**

As noted in the Background Section research on children in rural areas and within production agriculture have received considerable funding as well as specific conferences, workshops and web sites devoted to transmitting and disseminating research findings and appropriate practices. And, as the specific topic of this conference was the farming community 55 years of age and older, topics related to children were not included in conference presentation contents.

### **Material Available for Other Investigators**

The complete conference proceedings, including conference program, agenda, presentation files, corresponding audio files, presentation papers, as well as the audio of the separate 45-minute comment/discussion time can be found at <http://www.agsafetyandhealthnet.org/Conferences.html>. In addition, the *Journal of Agromedicine* Number 13, Issue 2 contains papers related to conference presentations that were successful in passing the peer-review process.