



**Project Name:** A Farm Safety Training Program on Human Risk Management for Dairy Producers using a Labor Force including Hispanic Workers

**Project Number:** RME-D7S02561

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**Project Summary:**

To achieve profitability and business viability, dairy farms have expanded in size to take advantage of economies of scale and to increase efficiency. This results in the need to hire non-family employees. The unemployment rate is low in the region, so immigrant workers fill a critical need. Dairy owners express respect and appreciation of employees, but also express frustration with the language barrier. As owners, they recognize responsibility for stewardship of land, cattle, and employees. Owners requested farm safety and worker well-being training for all employees to reduce risk of injury and to promote preventive health practices. Many owners have little formal education regarding human resource management, including worker safety, and are eager to access training and trainer resources on these topics. To meet this need in the four state region, Extension educators from Iowa, Nebraska, South Dakota and Minnesota will collaborate to provide farm safety training resources.

**Participants:**

Total Number of Participants: 0

## Results - What Participants Learn, Achieve, Apply

<u>Result(s) that will happen by end of project</u>	<u>Topic</u>	<u>Producer Action</u>	<u>Est. #</u>	<u>Actual #</u>	<u>How Verified</u>
1 Owners and supervisors from dairies in the I-29 Corridor region will increase knowledge concerning effective training of employees including Hispanics. (Workshop #1)	Employee management and communication	Understand	114	556	Workshop attendance, discussion participation, pre-post quiz at owners' workshop.
2 Owners and employees from dairies in the I-29 Corridor region will indicate increased knowledge and skills regarding farm safety. (Workshop #2)	Health, stress, and well being	Understand	114	556	Workshop attendance, discussion participation, pre-post quiz at owners' workshop.
3 Owners and employees from dairies in the I-29 Corridor region will engage in safe practices when using chemicals. (Workshop #3)	Health, stress, and well being	Implement	114	556	Workshop attendance and discussion; pre-post quiz at owners' workshop.
4 Owners and employees from dairies in the I-29 Corridor region will practice safe handling of dairy cattle. (Workshop #4)	Health, stress, and well being	Implement	114	556	Workshop attendance and discussion participation; pre-post quiz at owners' workshop.

<u>Result(s) that will happen after project</u>	<u>Topic</u>	<u>Producer Action</u>	<u>Est. #</u>	<u>Actual #</u>	<u>How Verified</u>
1 Project Coordinator and Project Team will conduct onsite visits to determine incorporation of farm safety regarding machinery, parlor chemicals and pesticide chemicals, and worker well-being practices into daily routines of dairy farm operation.	Health, stress, and well being	Implement	680		Observations, conversations, surveys and checklists
2 Project Coordinator and Project Team will observe safety signage in appropriate language; evidence of first aid equipment and materials; and evidence of safety sessions conducted with employees.	Employee management and communication	Implement	57		Observations, conversations, surveys and checklists
3 Project Coordinator and Project Team will document increase of dairy farm employee awareness of connection between on-farm routines and food safety.	Employee management and communication	Understand	100		Random interviews of employees
4 Program Coordinator and Project Team will verify increase of employee awareness of local human health resources.	Health, stress, and well being	Understand	100		Random interviews of employees and observations
5 Owners will observe a decrease in financial losses due to fewer accidents and injuries.	Health, stress, and well being	Understand	57		Financial records and injury incidence rate

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## Project Steps

	<u>What Project Team Did</u>	<u>What Participants Did</u>	<u>Actual Number</u>	<u>When Measured</u>
1	Hire Project Coordinator	N/A		July 31, 2008
2	Project Team will convene a meeting after grant award notification with Schwab, Neenan, Fisher, and Drakley to discuss content development	N/A		First meetings held; additional session planned for Oct 15
3	Conduct pre-assessment survey to determine specific needs for general content and delivery at each farm	Complete survey		Tech advisors provided template for pre-survey. Surveys in progress and due to tech advisors on Oct
4	Project Team recruits farms and schedules on-site training	Commit to participation		Recruitment nearly complete; pre-surveys being done concurrently.
5	Develop content for a farm safety workshop for dairy owners and supervisors (farm safety materials and adult learning process)	Attend 4 hour workshop at a dairy farm in the project region. Participate in dairy walk-through to increase awareness and knowledge about safety risks & prevention; learn guidelines to create custom farm safety manual, see sample manual; view demonstration of on-farm teaching methods to train workers about safe practices; learn about resources in area for employee health clinic and services	23	May 22, 2009
6	Deliver workshop 1 & 2	Attend	43	May 22 and Aug 10, 2009
7	Facilitate delivery of training on site at each of 40 farms in English and Spanish by March 31, 2009	Attend an on-farm workshop (powerpoint presentation plus question-answer discussion) to increase awareness and knowledge about safety risks on dairy farms.	556	Training content on day of delivery and on-going for long term impact
8	Provide follow-up on-site visits and assessments	Demonstrate farm safety practices established as a result of the training		July and August 2009

## Progress Notes

Thursday, September 10, 2009

Thursday, Sept 3, 2009

Since the last update entered on Feb 27, we have completed the main portion of our project, and made good progress towards accomplishing our project goals. This list summarizes our activities in the time period March 2009 - August 2009:

- Dr. Francesa delivered Dairy Farm Safety presentation at Break-out sessions at Central Plains Dairy Expo in Sioux Falls, March 31, 2009
  
- Delivery of bilingual farm safety workshop to 4 more SW Minnesota farms
  
- Delivery of bilingual farm safety workshop to 19 farms in NW Iowa
  
- Delivery of bilingual farm safety workshop to 11 more farms in South Dakota
  
- Preparation and delivery of Farm Safety Workshop for Owners and Managers, NW Iowa dairy site - May 22, 2009
  
- Presentation of the Farm Safety workshop at University of Nebraska Dairy Farm meeting for dairy owners in August 10, 2009
  
- Development of sample bilingual Farm Safety Manual; development of Guidelines for Creating a Farm Safety Manual for Your Farm
  
- Creation and delivery of bilingual safety signs (Safe chemical handling message) to farms that participated in the project

Friday, February 27, 2009

Friday February 27, 2009

1. Umberto Francesa, bilingual educator hired through this grant project, compiled farm safety gathered from technical resources, and prepared a powerpoint presentation to use as a teaching tool at the on-farm safety workshops.

2. To measure learning impact, Mr. Francesa prepared a pre-post quiz, and as given the quiz to workshop attendees using Turning Point technology (when available) and oral quiz method.

3. So far, Mr. Francesa has delivered the workshop to 108 dairy managers and employees to date at the following locations:

- to a workshop for 50 dairy managers who collectively manage 150 employees and approx 12,000 cows.
- on-site at 2 dairies in South Dakota, reaching 37 employees
- on-site at 3 dairies in Minnesota, reaching 21 employees

4. Plans are in progress to schedule the workshops at the 3 additional farms recruited for the project in Minnesota, and at for the 25 farms recruited in NW Iowa.

5. On the request of Project Director, Mr. Francesa is preparing additional training materials about the potential health hazards of drinking raw milk; this will be included in the farm workshops.
6. Project team members are planning for a seminar for farm owner/managers on practical ways to develop a culture of farm safety on their dairy farms, and to inform them about safety resources available.
7. Project team members have learned that insurance companies may offer premium advantages to farms that can document farm safety training. Team is preparing a document that describes the topics covered in the completed workshop; dairy owners can show this to their insurance companies if they so choose.

Friday, October 03, 2008

This list summarizes our project activities and progress since July 2008:

1. Bilingual educator search conducted and completed; bilingual educator, Umberto Francesa, hired and began work in first week of September.
2. Technical advisors (Chuck Schwab, Dan Neenan, and Kristi Fisher) met with project co-director. As a result of this meeting, a pre-survey instrument was created to help project team members collect needs assessment information on Excel spreadsheet for sampling of target farms. The technical advisors will then use the needs assessment information to select/develop/direct appropriate safety education materias to the project educator. Completed spreadsheet due to co-director by Oct 14. Survey results to be shared and discussed with technical advisors via teleconference on Oct 15.
3. Based on needs assessment survey, tech advisors will share safety materials and methods with project educator.
4. Farm recruitment: Farm recruitment has been in progress since August. Target was to recruit 12-15 farms from each state (SD, Nebraska, Minnesota, Iowa). Nebraska team member is unable to stay in project. Team members in other states will seek additional farms, and will seek permission from Nebraska colleague about bringing workshop to 1-2 farms in eastern Nebraska.
5. Workshop Master Schedule: Project team will meet Oct 29 to make efficient schedule for workshops to be conducted in November and December, with the intention of creating an efficient schedule.
6. Workshops for farm owners/managers: Master schedule will include dates for the off-farm workshops for dairy owners/managers. Focus of these workshops will be to train owners on employee training/meetings and on ways to create a "culture of safety" on their farms via training, signage, and bulletin boards. Sessions will include information about insurance and human health/safety resources.
7. Project promotion: Team members made plans to inform the target audience about farm safety workshops via press releases, and flyers/announcements at dairy meetings scheduled in fall-winter 2008-2009.

## Promotional Materials

### **Sample Invitation Letter to Dairy Producers to inform and invite them to participate in the RME Farm Safety Project by hosting a workshop for their employees, and by attending a workshop for dairy management.**

Material Type: Promotional Material

Audience receiving this invitation included dairy owners in the 4 state region of eastern South Dakota, NE Nebraska, SW Minnesota, and NW Iowa.

This material has been uploaded to the Ag Risk Library.

### **Invitation to Dairy Farm Safety Workshop for Owners, Managers, and Key Herdsmen: Creating a "Culture of Safety" on Your Farm**

Material Type: Promotional Material

This is the invitational flyer sent to dairy owners in the NW Iowa region, inviting them to come to a local farm (Dykstra Dairy) for a four hour afternoon workshop to learn about safety risks, and about the measure they could take as owners/supervisors to decrease risks and create a 'culture of safety' on their farms.

This material has been uploaded to the Ag Risk Library.

## Educational Materials

### Safety Risk Areas on the Dairy Farm

Umberto Francesa, Alvaro Garcia, Jeff Keown, Marcia Endres, Chris Mondak  
South Dakota State University Extension, September 2008, Material Type: Article (15 pages).

This article offers a summary of the common areas of risk on dairy farms. Under each category of risk (ie milking parlor, feed area, manure storage area, equipment and tools, chemicals), the document provides brief descriptions about hazards and offers suggestions to increase safety and reduce risk in each situation. The article serves as an overview intended to increase dairy owners' and employees' level of awareness about risks in their daily work environment, and to provide basic guidelines to make a safer work environment on the dairy farm.

This material has been uploaded to the Ag Risk Library.

### Sample Custom-made Dairy Farm Safety Training Manual

Dr. Umberto Francesa  
SDSU, Material Type: Other

This document was created for a dairy farm owner who participated in the RME farm safety project, Spring 2009. The document is a custom-made bilingual safety training manual and checklist. It's intended use on the dairy is as a guideline and training aid for use by the head herdsman in charge of training new employees, and responsible for keeping fellow workers informed about safe working practices. This customized safety manual was also used as an example for dairy owners attending a workshop about ways to create a 'culture of safety' at their own dairy farms.

Risk Library Topics  
Human Risk

This material has been uploaded to the Ag Risk Library.

## Educational Materials

### Farm Safety Project: Creation of a "Culture of Safety" on the Dairy Farm

Umberto Francesca  
South Dakota State University, March 2009, Material Type: Presentation

Project assistant, Dr. Umberto Francesca, developed this powerpoint presentation for use as a teaching aid while meeting with dairy owners and their employees at their dairy for a one-hour farm safety workshop.

This is the English version; another version in Spanish typically was used at the dairies during the employee break times: usually at mid-day or at late afternoon shift change.

#### Risk Library Topics

Human Risk

Human Risk >> Health

Human Risk >> Safety

Human Risk >> Safety >> Chemicals

Human Risk >> Safety >> Machinery >> Tractors and Other Large Machinery Safety

This material has been uploaded to the Ag Risk Library.

### Safety Sign for safe chemical handling on dairy farms

Umberto Francesca  
SDSU, August 2009, Material Type: Poster (1 pages).

During and after the on-farm safety workshops, many dairy owners identified the need for safety signs to post at their dairy. Project workers developed and distributed an English-Spanish safety sign about safe handling of chemicals on farm.

#### Risk Library Topics

Human Risk

Human Risk >> Safety >> Chemicals

This material has been uploaded to the Ag Risk Library.

## Evaluations and Reports

### **Final Report for RME Grant Project D7S02561: " A Farm Safety Training Program on Human Risk Management for Dairy Producers and Hispanic Employees"**

, Material Type:

This word document summarizes the work done towards 2 project goals:

1. Increase dairy owners´ and employees knowledge and awareness about safety risks, safe work practices, and resources for farm safety and worker well-being, and
2. Inform and encourage dairy owners to create a "culture of safety" on thier dairy farms as a part of dairy farm operations.

40 dairy farms in the I-29 region participated by hosting a farm safety workshop for their employees. 556 employees attended in total. 63 dairy owners attended 1 of 3 sessions held for dairy owners/managers.

## Project Comments

Describe any unexpected results of the project:

1. We observed different social climates on the dairies which had an impact on the effectiveness of our on-farm workshops. On those dairies where the owners showed interaction with employee crew, and presence and participation at the workshops, there seemed to be a higher likelihood that changes in farm safety practices would be implemented.
  2. Related to this, we observed that the presence of the project's bilingual educator facilitated dialogue between owners and work crews. These on-farm discussions seemed to be beneficial to both owner and employees in terms of expressing concerns, clarifying issues, sharing of ideas and suggestions for improvements.
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How would you improve the project if you were to do it again?

1. Plan for in-person recruitment of dairy owners --- this seemed for effective than invitation by mail, email or phone. Have a sample of the workshop material in hand (English version) to help "sell" the worth and value of the workshop for that dairy.
  2. Given the premium on time, schedule discussion time with owner and supervisors on farm on the same day as the on-farm workshop for employees. Require that the owner be present for discussion after the workshop; perform walk-through assessments or follow-on planning for changes.
  3. Since achieving "culture of safety" on farms requires the buy-in and involvement of farm personnel (owner, head herdsman), spend more time building their knowledge about safety risks, and building their skills to do brief but effective and frequent on-farm trainings and refresher courses for the farm crew.
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What were the keys to success for your participants?

1. The presence of the bilingual educator was a key element that facilitated the communication between owners and employee crews. These dialogues built understanding, trust, and promoted joint problem-solving of safety concerns.
2. Hosting the workshops on farm-- both the employee workshops and the separate workshops for owners/managers-- increased interest and willingness for the target audience to participate. Given the time demands on producers, and the tight work schedules on dairies, we had success in reaching high numbers of people by going directly to their farms, as opposed to hosting classroom style meetings off-farm.
3. The hands-on and participatory nature of the owner workshop was an effective way to engage interest of owners; several implemented changes as a result of attendance at a workshop for owners/managers held at a local dairy.
4. The project provided concepts and facts, PLUS resources to help producers make changes. Because of their increased knowledge to resources for improving farm safety, we observed implementation of changes that included posting safety signs, purchasing and installing first aid kits, purchase and use of employee protective gear -- ie gloves, safety glasses, respirators, modification or elimination of hazardous footbath situations, modification of facility area to improve safety in cow handling, development of a customized farm safety manual.



**Individual Stories / Examples of Success / Quotes**

**How did the project leverage resources?**

RME grant funds allocated:	\$50,000
RME grant funds expended:	\$50,000
Other funds used for the project:	\$11,500
Non-cash resources:	\$3,000

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**Delivery area:**

This project was delivered in 4 states: Iowa, Minnesota, Nebraska, South Dakota