

Western IPM Center Project Report Form

How to submit: Please submit this completed form electronically, as an attached Microsoft Word file, to Jane Thomas at jmthomas@tricity.wsu.edu. If you have questions, contact Linda Herbst, (530) 752-7010. **Content:** Complete each section below, and include responses to as many of the questions listed in Attachment A as are relevant to your project. *These are guidelines.* Provide your readers with enough detail that someone who is not familiar with your project can understand what you were trying to achieve, how you went about it, and what you accomplished, but please keep it concise.

A. Report Data

Date: May 6, 2010

Reporting Period: January 21, 2009 to October 31, 2009

Report Type (please check one):

Progress Report Final Report

B. Grant Data

- Grant Agreement #: 2007-51150-03885
- Title: Preventing Ticks on Pets In and Around Residences to Reduce the Incidence of Rocky Mountain Spotted Fever on San Carlos Apache & White Mountain Apache Reservations
- Grant Type: Research Subaward
- Lead investigator:
 - Name: Sabrina Tuttle
 - Title: Extension Agent, Assistant Professor
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- Team members (name, title, institution):
- State(s) involved:

C. Nontechnical Summary. An overview of the project, briefly outlining the problem(s), how your project addresses them, and your results, *written to a lay audience.* (500 words)

In the past 7 years in Arizona, it has been discovered that the brown dog tick is a host of Rocky Mountain Spotted fever, a potentially fatal illness. The transference of the host tick to household dogs and then to humans caused 60 cases of the disease in eastern Arizona during 2003-2008, with 6 fatalities on the San Carlos and White Mountain Apache Reservations. While it appears that knowledge of the disease and the ticks that cause it may be fairly high on the reservation, the actual use of techniques to rid pets and homes of ticks was still low.

In order to increase use of techniques to prevent ticks in the communities, we provided 5000 educational flyers at rabies vaccination and spay neuter clinics on each reservation, as well as at numerous home visits. San Carlos and White Mountain Apache Health and Human Services personnel, veterinary students, and volunteers explained how to prevent the disease and gave the participants a 5 month tick prevention dog collar for at least one of their pets. Although not all of their pets received a collar, we aimed to give them a sample, so they could see how it prevented ticks from attaching to and living on their pets. Through these communications campaigns, by distribution of the flyers, and demonstrations on how to keep their home and pets free of ticks, we hope that more people will understand the need to prevent tick infestation and will act to prevent it by using tick collars, cleaning weeds around the home, and applying safe pesticides around the home. This would decrease the incidence of Rocky Mountain Spotted Fever disease cases and fatalities.

D. Objectives and Progress. List your objectives and describe your progress for each objective.

Objectives: 1. To meet with the Spay Neuter Clinic Committee in San Carlos and the Rocky Mountain Spotted Fever (RMSF) Committee in Whiteriver in order to determine the need for educational flyers and dog collars or other possible materials 2. Determine when to distribute educational flyers and dog collars, and how to provide educational demonstrations on each reservation, in collaboration with each committee, and distribute the materials 3. Evaluate the effectiveness of the distribution of the materials Progress: Objective 1: The extension agent met with the San Carlos epidemiologist and the Spay Neuter Clinic in January 2009 and contacted the RMSF committee and Environmental Health Officer by phone and also during a conference call, to determine the needs for flyers and collars. White Mountain Reservation had sufficient flyers already printed, so they requested only collars. San Carlos needed both collars and printing of flyers 2. Flyers and collars were distributed by health personnel, veterinary students, and volunteers, who explained the flyer and showed the residents how to prevent ticks during the spring spay-neuter clinics, summer and fall rabies vaccination clinics, and visits to households on both reservations. 3. Evaluation by contacting committee chairs and questioning them on the effect of the campaign has yet to be done. Extension agent has been out on sick leave and working part time due to various chronic illnesses, and has not been able to evaluate the project, which she would like to do when able.

E. Outputs. List your project's outputs, which might include publications, information, data, meetings held, attendance at meetings held, etc.

1. We distributed 454 dog collars at White Mountain Reservation, and 5000 flyers and 64 dog collars at San Carlos reservation; 5000 dog collars were left for future use 2. Health personnel, veterinary students, and volunteers provided numerous tick prevention demonstrations at 2 spay neuter and 2 rabies clinics and on household visits on each reservation.

F. Impacts and Potential Impacts. The "impacts" and "potential impacts" sections of your report will help the Western IPM Center highlight the value of IPM research and education by detailing the real-world impacts of Center-funded projects. We will use the information in news articles, reports, and informational brochures to showcase the impacts of projects that our program supports. *See Attachment A at end of form for questions to assist you in describing the impacts of your project.*

1. Impacts. Describe any impacts of your work. *Impacts* are specific changes in condition for those affected by your work. Impacts include adoption of technology, creation of jobs, reduced cost to the

consumer, less pesticide exposure to farmers, access to more nutritious food, and a cleaner environment and healthier communities.

With more access to educational materials on tick prevention and sample dog collars, reservation residents were more likely to control ticks around their residences and on their pets. Due to budget cuts, the state of Arizona was unable to provide tick prevention dog collars to the reservations, therefore our provision of the collars was much appreciated.

2. Potential impacts. Describe your project’s potential impacts. *Potential impacts* are the ways that your project’s outputs could directly lead to changes in condition that will unfold in the future.

Provided more residents adopt tick prevention strategies, the incidences of Rocky Mountain Spotted fever cases and fatalities will go down, leaving healthy pets, homes, and a healthier community.

G. Leveraged Funds. List *additional funding* you have acquired because of the data and results yielded in this WIPMC-funded project.

Additional Funding Award #1:

Date of Award:	Name of Granting Entity:
Dollar Amount:	Name of Grant Program:
Grant Period Duration:	

Additional Funding Award #2:

Date of Award:	Name of Granting Entity:
Dollar Amount:	Name of Grant Program:
Grant Period Duration:	

Additional Funding Award #3:

Date of Award:	Name of Granting Entity:
Dollar Amount:	Name of Grant Program:
Grant Period Duration:	

H. Appendices

1. With your report, please attach *at least two (2) photographs* that illustrate your project. Please describe the photo and indicate the name and institution of the person who took the photo. (If you submit more than two photographs, please include those additional descriptions and photo credits under "I. Additional Information," below.)

Photo #1 description:

Tick Prevention Dog Collars used in the Rocky Mountain Spotted Fever Tick Prevention Campaign

Photo #1 credit (photographer's name and institution):

Celestina Fast Horse, University of Arizona

Photo #2 description:

Photo #2 credit (photographer's name and institution):

2. Also attach any printed fact sheets or other publications resulting from your work that will enhance our understanding of your project and its impacts. Please provide a description of each attached publication below.

Document #1 description:

Tick Prevention Flyer printed for the San Carlos Apache Reservation, front and back sides.

Document #2 description:

Document #3 description:

I. Additional Information

Credit: Some of the language about impacts and potential impacts was adapted from a PowerPoint presentation by H. Michael Harrington, Executive Director, Western Association of Agricultural Experiment Station Directors, Colorado State University.

Attachment A

Questions to Help in Reporting Impacts and Potential Impacts

Below are some questions that will guide you in assessing and then describing the impacts and potential impacts of your project. The relevance of each question may vary depending on whether yours is a research or extension project. Please answer as many as you can to the best of your ability, and feel free to describe any additional types of impacts not mentioned below. Remember to identify any potential impacts.

1. Innovations in IPM:

Are there new IPM practices that have been (impacts) or could be (potential impacts) adopted as a direct result of your project? What is the total number of acres (or homes, schools, greenhouses, nurseries) on which these practices could realistically be implemented?

2. Safeguarding human health and the environment:

- a. Has the project reduced risk (or could it potentially do so) by changing the use of pesticides on farms, in homes, in schools, etc.? For example, could it result in fewer sprays per season or a switch to lower-risk pesticides? If possible, quantify the changes in condition. (Since there is no unanimous definition of *high* and *low risk*, investigators selecting this indicator are asked to categorize the pesticides they are reporting on as *high* or *low risk* according to the particular situation [e.g., lower risk to natural enemies]).
- b. Are there any other impacts or potential impacts on human health or the environment as a result of your project?

3. Economic benefits:

- a. What is (or could be) the economic benefit (e.g., dollars saved) for clientele who adopt IPM strategies and systems you studied? Do you envision potential commercialization or mass production of these systems?
- b. How many clients are satisfied with IPM results (such as improved yield, improved quality of yield, reduced pest populations, more effective pest control, greater preservation of nonpest species)?
- c. Are there other financial benefits that might be realized (potential impact) as a result of your project?

4. Implementation of IPM:

- a. How many IPM strategies and systems have been validated through this project (e.g., through on-farm trials, large plot tests, or other methods used to confirm efficacy)?
 - b. How many educational materials were delivered? To whom? And what are the impacts or potential impacts?
 - c. What is the number of growers/personnel trained? And what are the impacts or potential impacts?
 - d. For a Web site, what volume of traffic and type of use has the site experienced? (For example, number of visitors per day or month; number of page views; number of unique user sessions; change in volume during growing season; average viewing time.) And what are the impacts or potential impacts?
 - e. How many more people adopted IPM practices as a direct result of your project, or how many people adopted new IPM practices?
 - f. Are there other ways in which your work will result in improved use or increased implementation of IPM strategies in your region or across the West?
5. Has your project or study increased collaboration among stakeholders interested in the development and implementation of improved IPM strategies and systems?