

**FINAL REPORT – IPM/SA Mini-Grant**  
**Promoting Beneficial Insects for Integrated Pest Management**

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**SITUATION STATEMENT:**

Insects as a whole class are generally perceived by the general public as pests and undesirable. However, the majority of insects, up to 90% of the species are considered beneficial or neutral. There are a few obvious insects that most people understand are beneficial such as lady bird beetles and honeybees. However, many Utah native insect species are unknown to the general public, and usually categorized as pests. These “good guys” need some “good advertising and promotion”. These good guys need to be understood, in order for people to attract and protect them in their landscapes. Education of consumers of these beneficial insect species is necessary to reduce misuse and overuse of pesticides. One of the key components of an Integrated Pest Management program is proper identification of pests. This proposal is to introduce to Master Gardeners, homeowners, and the general public coming to our Utah State University Extension office in Salt Lake County on beneficial insects and changing the perception that most insects are pests. In Salt Lake County, the number of contacts through USU Extension garden phone help line, weekly plant diagnostic clinics, and information booths staffed by USU Master Gardener volunteers at Pioneer Park Farmers Market, county fair, state fair combined generates more than a thousand queries a month. Several of these queries are focused on pest identification and management.

For this final report, we will summarize the setup, use, and effectiveness of using digital photo frames. Visual images are powerful and useful to promote and familiarize the public with beneficial insects. By viewing the slideshows, it will help the public recognize and understand that there are beneficial insects. These photo frames are portable, rechargeable, and visually appealing to capture the attention of a viewer. The goal is to make interesting visual “infomercials” on beneficial insects as well as publicize the Utah Pests webpage and resources. These frames were programmed with short informative slideshows to introduce beneficial insects that will benefit your garden and those insects that need to be protected, rather than eliminated through use of insecticides.

**FINAL REPORT ACCOMPLISHMENTS**

1. Four separate PowerPoint slideshows were created and saved as JPEG File Interchange Format. These slideshows were then transferred to SD Memory cards. The advantage of using SD card versus internal memory of the photo frame is flexibility creating various slideshows. The slideshows created were each 12 -15 slides long

highlighting a beneficial insect. The beneficial insects highlighted included Mantids, Beetles, True Bugs, Lacewings and Antlions. These were chosen because there is a corresponding Utah Pest Fact Sheet on each of these insects.

2. Purchased two different digital photo frames, a 10.5 inch Philips frame and 15 inch Gigantor frame. The Philips has a built in rechargeable battery that can operate up to 3 hours after charging. Also purchased an Energizer Digital Photo frame rechargeable battery for the 15 inch frame. Many event venues such as the Farmers Market information booth, garden fairs and diagnostic clinic locations do not have plug in electrical power, so the battery operation allows use of the frames in any location.

Primarily the large 15 inch photo frame has been placed at our Master Gardener counter in our reception area. The frame has been operational since June of 2008. It has been operation now for 5 months. This frame has held up well and has been turned on every day, scrolling through the slide shows without any problems. Over 500 Extension office clients have come into our reception area during the months of June, July and August of 2008.

The 10.5 inch frame has been taken to diagnostic clinics, Salt Lake county fair, and Utah State Fair. This frame also functions well, however the smaller size does not have as big an impact and not easy to see. The larger frame is definitely preferable to the smaller size.

3. 150 color copies of the each of the above mentioned beneficial insect fact sheets were reproduced for distribution alongside the digital photo frames. Although these factsheets are available online, the public appreciates getting more detailed and in-depth information. There is the added benefit of promoting the Utahpests webpage with the website printed on the fact sheets.
4. A short survey was also developed and those who viewed the slideshow were asked to respond. Copy of survey below. Eight questions were asked. Responses to questions were a simple Yes or No. The positive impact we were seeking after a person viewed a slideshow was a change in behavior.

Two questions that could determine a change in behavior were:

- “Did you think this insect was a pest before viewing the slideshow?”  
10% responded NO, 90% responded YES. This shows that these beneficial insects prior to the slideshow were thought of as pests. Many p
- “Are you more likely to let this insect remain in your yard and garden?”  
100% responded YES that indicates that the images and short education helped the viewer to understand which insects are beneficial.



Were you familiar with this insect before you viewed the slide presentation?	<b>YES</b>	<b>NO</b>
If no, do you think that you would now be able to identify this insect?	<b>YES</b>	<b>NO</b>
Did you think this insect was a pest before viewing the slideshow?	<b>YES</b>	<b>NO</b>
Have you ever used some form of control (chemical, physical) to remove this insect from your yard or garden?	<b>YES</b>	<b>NO</b>
Are you now more likely to let this insect remain in your yard or garden?	<b>YES</b>	<b>NO</b>
Do you use pesticides on a regular basis?	<b>YES</b>	<b>NO</b>
If yes, are you now more likely to use less pesticide to protect beneficial insects?	<b>YES</b>	<b>NO</b>
Which beneficial insect slide presentation did you view?	_____	

**EDUCATIONAL PRODUCTS:**

A series of four slideshows are attached.

1. Beneficial Garden Insects – Beetles
2. Beneficial Garden Insects – Lacewings
3. Beneficial Garden Insects – Mantids
4. Beneficial Garden Insects – True Bugs