

Western Regional IPM Grants Research/Extension Accomplishments Report

INSTRUCTIONS: PLEASE PROVIDE ONLY THE ESSENTIAL COMPONENTS OF ACCOMPLISHMENT WHICH ARE:

1. A CLEAR IDENTIFICATION OF THE PROBLEM/ISSUE ADDRESSED BY THE RESEARCH/EXTENSION.
2. A CONCISE EXPLANATION OF HOW THE RESEARCH/EXTENSION ACHIEVEMENT CONTRIBUTED TO THE SOLUTION OF THE PROBLEM/ISSUE BEING RESEARCHED.
3. THE IDENTIFICATION OF OTHER BENEFITS RESULTING FROM THE RESEARCH/EXTENSION, EVEN IF UNPLANNED.
4. PLEASE ATTACH A SUMMARY OF THE PAST YEARS PROGRESS, ONE PAGE MINIMUM.

CONTACT: Bradley Mullens

PROJECT NUMBER: 002561-002

TELEPHONE: (951) 827-5800

PROJECT TITLE: Economic Analysis of Host-Based Ectoparasite Control

PRINCIPAL INVESTIGATOR: Bradley A. Mullens

INSTITUTIONAL ADDRESS: Dept. of Entomology, University of California, Riverside, CA 92521

CO-PIs or TEAM MEMBERS: D. R. Kuney, J. A. Mench, N. O'Sullivan

THE PROBLEM, ISSUE, OR REASON FOR CONDUCTING THE RESEARCH/EXTENSION:

Control of ectoparasitic lice and mites on hens is now exclusively via chemicals, and resistance, registration issues, and societal pressures are rendering them much less effective. Animal welfare issues simultaneously are changing how animals are housed and handled; in poultry beak trimming is being criticized. We have evidence that beak-intact hens can control their own ectoparasites to a large extent, possibly eliminating the need for chemical control and helping defuse the welfare issue. If this makes economic sense for producers, hens might be able to manage ectoparasites without further interference by people. The information may speed the development by breeders of docile hen strains that can be held in close proximity without trimming, but still have the desired production characteristics.

If hens can control their own ectoparasites, it may be a win-win situation both for welfare advocates and producers.

THE SINGLE MOST IMPORTANT ACCOMPLISHMENT OR BENEFIT RESULTING FROM THIS RESEARCH/EXTENSION:

ADDITIONAL BENEFITS, SUCH AS:

SOCIAL BENEFITS – Lessen pressure from welfare advocates on producers, improve the image of animal agriculture.

ECONOMIC BENEFITS – Study may contribute to less/no pesticide application or beak-trimming costs for producers, if the comprehensive economic analysis of production by beak-intact hens is sound.

ENVIRONMENTAL BENEFITS – No pesticide application may be needed for ectoparasite control, with consequent reductions in human exposure.

OTHER -

PLEASE SUBMIT A HIGH RESOLUTION DIGITAL IMAGE REPRESENTATIVE OF YOUR RESEARCH/EXTENSION PROJECT THAT WE CAN USE TO HIGHLIGHT YOUR PROJECT!

When you have completed this form, return to both:

Dr. Frank Zalom
Department of Entomology
One Shields Avenue

University of California
Davis, CA 95616
fgzalom@ucdavis.edu

and

Rick Melnicoe
Western IPM Center
Department of Environmental Toxicology
One Shields Avenue
University of California
Davis, CA 95616
rsmelnicoe@ucdavis.edu

THIS FORM WAS COMPLETED BY:

Bradley A. Mullens, Professor__

(Name and Title)