

## **Samples of Outcomes/Impacts from ANR's Merit and Promotion Packages**

### **Family Centered Nutrition Education Programs**

*Let's Eat Smart, Play Hard Together!*

*Eat & Play Together!*

*Child Wellness Programs*

Results indicated parents (n=260) improved in food resource management practices (83%), food safety practices (66%), and nutrition practices (90%). Additionally, nearly all parents who participated (99%) agreed or strongly agreed that they felt more confident in their knowledge of how to live a healthy lifestyle and how to help their child lead a healthy lifestyle. Parent Health Educators reported a plethora of success stories such as: A 3-year old participant now eats broccoli and other vegetables. Every time she eats a vegetable, she says she wants "to glow". A mother, addicted to caffeinated sodas and juices, now has stopped drinking sodas/juices and lost four pounds. Another mother of a 3-year old physically enrolled in the program because she had heard the lessons helped a friend's son do a dramatic turn around with eating and food choices.

This program's success has supported continued growth and positive outcomes for SJC UC CalFresh and led to 5 new partnerships. Long term these family-centered early childhood programs are anticipated to have positive impact on the overall health and wellness of children 0-5 and their families and to foster systems changes reflective of the Social-ecological Model.

### **Youth Nutrition Education**

UC CalFresh educators reached 920 teachers/educators representing 12,617 youth from 2010 to 2012—approximately 8.8% of the statewide total. A sampling of teachers (n=64 teachers representing 1,936 students) completed the UC CalFresh "Teacher Observation Tool". Results indicated that 83% more of the teachers reported that their students could now identify healthier food choices and close to 50% indicated their students more often brought fruits/vegetables as snacks and choose fruits and vegetables in the cafeteria or at classroom parties.

**EFNEP** - improve the health of limited resource families through practical lessons on nutrition and healthy lifestyles, resource management and food safety.

Outcomes: participants improved their nutrition practices (3 year average) 82%; food resource management practices 76% and food safety practices 60%. More than 90% of participants make at least one positive food group change. Impacts: cost-benefit analysis tells us that for every dollar spent in EFNEP, four to eight dollars is saved in future health care costs. Using these figures, the future health care savings from EFNEP over the past three years would be approximately \$1 million in Tulare County.

**Farm-to-WIC project.** This CDFA-funded, three-county project focused on 1) connecting small local growers in three counties to small stores that sell produce to WIC (The Supplemental Nutrition Program for Women, Infants and Children) participants 2) expanding the demand for fresh produce through point-of-purchase education targeting WIC participants and 3) improving the produce quality through post-harvest handling training among WIC vendors.

Impacts of the project include better produce handling by participating WIC stores, increased knowledge of WIC participants of produce selection, handling, nutrition and preparation for small children, increased understanding of the barriers small growers have in product distribution, identification of unique models of produce distribution.

### **Management of Weeds in Pasture/Rangeland/Wildlands**

Research and extension program was focused on finding effective management methods for controlling weeds and restoring desirable vegetation after weed control. Targeted vegetation changes for management included increasing livestock forage production, improving wildlife habitat, and restoring native plants.

**Outcomes and Impacts:** Studies identified effective ways to re-vegetate weed-infested sites. Studies determined effective herbicide control options, reseeding methods, and the plant species appropriate for reseeding. Public land managers throughout Northeast California contacted me from 2008-2012 to obtain management information and discuss weed management. I helped Lassen County develop a management plan for perennial pepperweed. I communicated regularly with land managers in other states to discuss weed management and published research. Weed species were added to multiple CA herbicide labels, and label language on plant-back intervals for reseeding perennial grasses was added to two CA labels. The medusahead management research identified herbicide treatments that reduce medusahead cover and increase perennial grass and native forb cover. The Tulelake National Wildlife Refuge incorporated research results in a 500+ acre medusahead management program.

### **Management of Endemic and Invasive Pests and Diseases in Irrigated Crops**

Research focused on finding effective herbicides for controlling perennial weeds and annual grasses in grass hay and alfalfa-grass mixtures. Roundup Ready alfalfa was the main focus of my weed control research in alfalfa. Roundup Ready alfalfa varieties have genetic resistance to glyphosate enabling glyphosate to be applied directly over the crop for weed control. Experiments evaluated different glyphosate rates, herbicide tank-mixes, and application times for weed control in seedling and established alfalfa.

**Outcomes and Impacts:** Research determined the best herbicide application times and herbicide choices for annual grass control in perennial grass hays. Formal recommendations and label language were developed for metribuzin (Sencor) to control annual grasses in alfalfa-grass mixtures. Northern CA growers adopted weed control recommendations for Round-up Ready alfalfa that were developed by a team of UC Farm Advisors.

## **Pest Management in Onions**

- Management of White Rot Disease in Processing Onions
- Weed Control in Processing Onions
- Maggot control in Processing Onions

Research focused on managing white rot, weeds, and maggots.

Outcomes and Impacts: We identified three fungicide treatments that significantly decrease disease severity and increase disease-free onion yield. Preliminary results integrating biostimulants with fungicides are very promising. This approach appears to be the most effective management option available to growers. More than 90% of Tulelake onion growers adopted fungicide recommendations developed at IREC for managing white rot.

The weed management study identified promising herbicide treatments for controlling kochia, lambsquarter, and pigweed. Demonstration trials conducted in 2012 did a good job educating growers, and several growers plan to alter their weed control programs in 2013.

The maggot control study determined insecticide seed treatments containing spinosad and clothianidin provide superior protection from maggot damage compared to chlorpyrifos.

Applying insecticides as a seed treatment was more effective than applying them in-furrow. US Fish and Wildlife land managers fast-tracked approval of insecticide seed treatments for maggot control on federal lease lands as the seed treatments are much more environmentally friendly than chlorpyrifos.