



# University of California 4-H Youth Development Program

## Children, Youth, and Families At-Risk (CYFAR) Program 2009-2013

The 4-H CYFAR project engages school age youth in science education through **garden-based learning** to help youth build knowledge, skills, attitudes and positive behaviors necessary for **fulfilling contributing lives**.



Youth in Borrego Springs exhibiting their project at the end of the year.  
SET = Science, Engineering, Technology

### Background

#### USDA

Five-years of funding to support community-based projects coordinated by land-grant universities.

Approaches youth development holistically which views the individual in the context of families and communities.

Emphasis on human ecological principle of working across the lifespan in the context of the family and community.

#### California

##### 4-H CYFAR Sustainable Communities Project

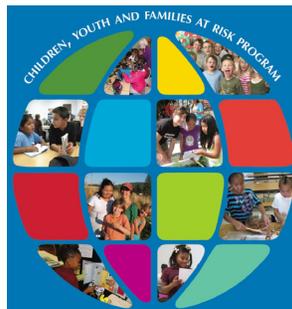
Focus on science and environmental literacy for K-8<sup>th</sup> grade youth. Integrates local teenagers as facilitators and mentors.

##### Incorporates Promising Practices in the Program Model

- Sustained participation of youth
- Well-prepared staff
- Intentional programming

Partnership with families and community organizations

Emphasis of community-based resources that showcase the unique community assets of the particular locality.



### Program

#### San Diego, Borrego Springs

*Sue Manglallan, 4-H Youth Development Advisor*

High school teens engage 5<sup>th</sup> grade youth in afterschool gardening. Parent nights are held where youth display their new knowledge; for example, youth presented a worm composting demonstration at the school open house.

#### Sacramento, Southeast

*Marianne Bird, 4-H Youth Development Advisor*

Teens present the Youth Experiences in Science curriculum to K-3<sup>rd</sup> grade youth, staff facilitate garden-based education and the 4-H Water Wizards program, and youth participate in an environmental education camp.

#### Yolo, Winters

*Joyce Gutstein, John Muir Institute of the Environment, UC Davis*  
*Marcel Horowitz, 4-H Youth Development and Nutrition Advisor*

UC Davis students and local teens lead environmental and gardening educational activities to K-3<sup>rd</sup> grade youth in the "Nature Club", "Science Wednesdays", and "Teen Club."

### Outcomes and Impacts

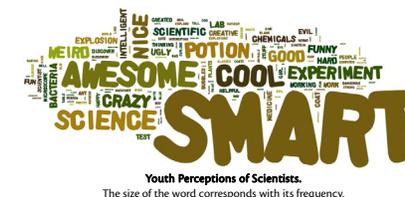
#### Youth Benefit from Programs

In 2012, 108 youth participated in evaluation (42% male, 58% female; 43% Latino, 9% white, 5% asian, 6% black, 22% more than one).

Youth developed:

- positive attitudes towards science (e.g., 66% agreed that they like to figure out how things work)
- an understanding and appreciation for the environment (e.g., 79% enjoy nature and 61% agreed that they can make a difference in the world)
- positive relationships in the program (e.g., 84% agreed they have adults in their life who care about them)

Youth also gained skills by using scientific tools for gardening.



#### Communities Benefit

- In Sacramento, parents of youth plan to charter a 4-H community club to meet after school to expand 4-H.
- In San Diego, two family resource centers were established in partnership with local service organizations.
- In Yolo County, adults were recruited to lead youth activities such as soccer. In addition, movement has begun to re-form the County Youth Coalition, which could provide ongoing programs in underserved areas of the county.



University of California  
Agriculture and Natural Resources

#### State 4-H CYFAR Team

Principal Investigator: Shannon Dogan, Associate Director of 4-H Program and Policy  
Coordinator: Steven Worker, 4-H Science, Engineering, and Technology Coordinator