

Healthy Communities Healthy Food Systems Healthy Environments

Healthy Californians

UC | University of California
CE | Agriculture and Natural Resources | Cooperative Extension



Farm and Home Advisors

Practical - Trusted - Connected

From the County Director:

Our commitment is to lead the way with innovative research-based answers, reach out with new methods and serve new clientele. Advisors, housed in the County of Kern Farm and Home Advisors Department, are a Practical, Connected and Trusted resource for science-based information.



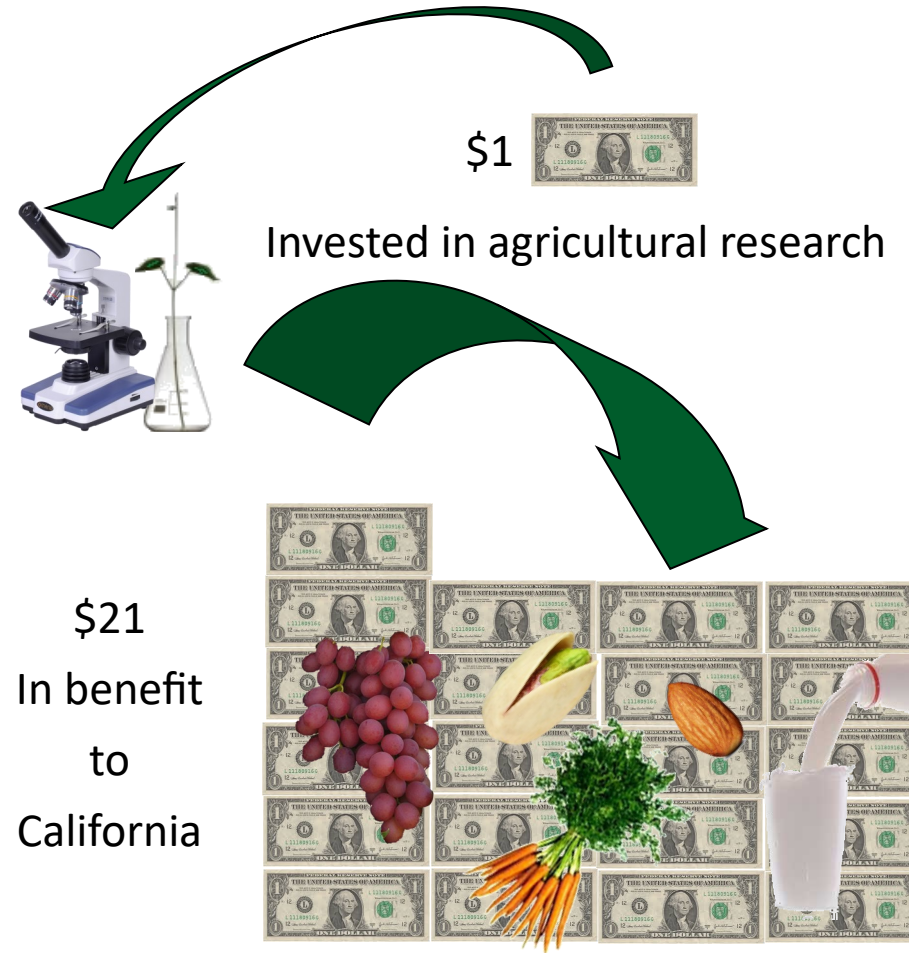
Recent pandemic restrictions have further revealed the importance of delivering practical, effective solutions to real-world problems.

This booklet is a snapshot of the extensive work performed by UC Cooperative Extension in Kern County. Our research and education programs develop and promote

- Healthy Food Systems,*
- Healthy Environments,*
- Healthy Communities and*
- Healthy Californians.*

These ideas do not stand alone. They are woven together into the framework of our mission and outreach as we work to support the communities of Kern County.

Dr. Brian Marsh



2021 Kern County

Farm Revenue

\$8.34 Billion



Sources: Investing in California;
2021 Kern County Agricultural
Crop Report

Promoting economic prosperity in California

Almond Rootstocks

The choice of the almond rootstock is one of the most important decisions a grower will make for the best disease and soil-borne pest resistance and yield potential.

Breeders actively produce new varieties. Local evaluation is critical to assess their horticultural traits and most importantly their yield and nut quality.

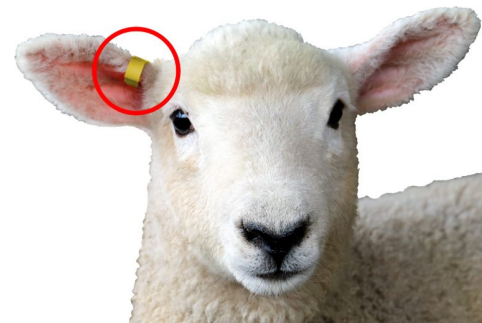


Why it matters:

- ◆ Rootstock choice is site specific depending on soil challenges.
- ◆ Rootstocks can mitigate soil problems such as salinity and heavy textured soils.
- ◆ Rootstocks can be resistant or tolerant against soil pests and foliar diseases.

Improving Economics of Sheep Production

Exploring new opportunities in livestock grazing and crop production integration in an almond orchard.



Identified highly prolific sires in local sheep flocks through genetic testing and the use of electronic ID ear tags.

3800 sheep tagged, genetically tested and traced.

Why it matters:

Management support for:

- ◆ Producers of 82,000 sheep and lambs in Kern County
- ◆ Total value \$25.3 million

Safeguarding abundant and healthy food for all Californians

Pistachio production has become an increasingly significant economic driver.

- ◆ Over 153,000 acres
- ◆ Salt and drought tolerant — an economically viable choice on land where other crops can not be grown
- ◆ ‘Golden Hills’
Bred and selected in Kern County
The most widely planted variety over the past five years
- ◆ ‘UC Westside’
New male pollenizer more adapted to climate change



Pistachio breeding continues in Kern County. Long-term trials are being evaluated to identify novel varieties.

Why it matters:

- ◆ Fewer winter chilling hours required in response to climate change
- ◆ Natural resistance to navel orangeworm to reduce pesticide usage
- ◆ Earlier maturing for more genetic diversity
- ◆ Improved yield for greater economic stability

Table Grape Production

Rootstocks are one of the most effective tools to protect grapevines against soil-borne pests. Testing the long term effect of rootstocks on vine growth and fruit quality in the local environment.



Evaluating pruning mechanization in table grape vineyards, in light of the labor shortage. The mechanical pruners are gradually adopted by the industry to reduce production costs and improve pruning efficiency.

Why it matters:

- ◆ Enhances the 1.87 billion dollars of grape production

Improving California’s Health Through Nutrition Education

CalFresh Healthy Living and the Expanded Food and Nutrition Education Program help families and individuals manage their resources more wisely and stretch food dollars by teaching goal setting, planning and shopping skills, thereby improving their ability to purchase healthy food.

Serving the Community—Education Programs

Organizational and Environmental Changes

- ◆ Nutrition Educators provided direct education sessions for community partners.
- ◆ UCCE Kern staff increased social media activity using Facebook. Resources shared to followers include: physical activity, nutrition recipes, food safety and other community events and resources. <https://www.facebook.com/UCCEKernCounty>



Participant comment:

“I learned how to eat healthier and save money when grocery shopping.”

Good nutrition and physical activity habits are best when they start at a young age.

Coordinated Approach To Child Health (CATCH) provides children the opportunity to develop motor and manipulative skills through games and activities.



Children have the opportunity to be more physically active during school sessions.



CATCH trained teachers

Highlighted Partners:
 Mexican American Opportunity Foundation
 Farmworker Institute of Education and Leadership Development
 Las Mariposas Head Start
 CAPSLO

Why it matters:

- ◆ Life-long habits of good nutrition and exercise improve a person’s health and productivity and reduce medical costs.

Impacting Lives

- 87% showed improvement in at least one Food Resource Management behavior.
- 92% reported improvement in reading the nutrition label.
- 72% of participants increased their physical activity.

Protecting California's natural resources

Finding Safer Methods of Pest control

Research programs focus on a management technique called mating disruption. Over the past decade, University of California researchers have identified the pheromones produced by many insects.



These pheromones can now be mass-produced in laboratories and applied to fields to interfere with males ability to find females, such as vine mealybug (grapes) and navel orangeworm (almonds and pistachios). Without mating, these insects don't produce offspring, resulting in significant control without the use of pesticides.



Why it matters:

- ◆ Fewer pesticide applications
- ◆ Improved insect control
- ◆ More sustainable crop production

Vegetable production is an important economic driver in Kern County.



Root knot nematodes are a serious threat to vegetable crop production.

Research focuses on finding viable, safe and economical alternatives to manage nematodes in carrots and potatoes.

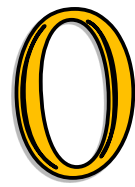
Research is underway to:

- ◆ Evaluate varieties for nematode resistance
- ◆ Evaluate non-chemical alternatives
- ◆ Determine the most effective timing of applications



Why it matters:

- ◆ Less crop loss
- ◆ Improved food safety
- ◆ Fewer pesticide applications
- ◆ Promote safer, environmentally friendly practices



Each year UCCE Advisors attend a variety of community events to provide information that can be of benefit to the general public. Farm Day in the City and Wind Wolves Spring Nature Fest serve as a great opportunity to educate thousands of children and parents on the diversity of good and bad insects that can be found in Kern County.



The annual pruning demonstration educates backyard growers on the proper way to train and prune fruit and ornamental trees for optimum production and appealing look.



Horticulture Classes for Landscapes, Orchards, and Gardens



- ◆ Soil properties and their modification
- ◆ Plant selection and placement
- ◆ Pruning practices
- ◆ Enhancing green space
- ◆ Fruit, citrus, and vegetable production
- ◆ Irrigation and water conservation
- ◆ Integrated Pest Management (IPM)
- ◆ Non-chemical pest management
- ◆ Turf management



Why it matters:

- ◆ Knowledge promotes more efficient and effective practices
- ◆ Flowering plants beautify landscapes
- ◆ Water conservation through good irrigation management
- ◆ Security through home food production

Developing a qualified workforce for California



4-H Youth Development

4-H is a nationwide youth development organization administered through land-grant universities that promotes:

- Leadership
- Citizenship
- Life skills.

4-H empowers young people to reach their full potential.

4-H enables youth to emerge as leaders by learning through hands-on, research-based projects with adult mentors to give back to their local communities.



Juntos College Preparation

- Dedicated to increasing Latino participation in preparing for and entering college
- How to successfully navigate through the admissions process
- Programming involves the entire family

Why it matters:

- ◆ Thousands of youth over the past 100 years have learned leadership, citizenship, and life skills by participating in 4-H programs.

My Head To clearer thinking
My Heart To greater loyalty
My Hands To larger service
My Health To better living

Promoting Positive Youth Development— Outreach Programs

On-line events: Presentation Day, Home Economics Field Day, and Fashion Revue. Youth were able to give presentations, be evaluated for their work and receive awards.



4-H Avian Embryology

Students and teachers learned more about animal science literacy and food production.



Why it matters:

- ◆ Multiple teachers reported more group cooperation, empathy and improved social skills.



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