San Benito County 2015 Report

University of California
Agriculture and Natural Resources

PRACTICAL • CONNECTED • TRUSTED

OUR PROGRAMS

YOUTH, FAMILIES and COMMUNITIES

EDUCATE and SUPPORT THE HEALTHY DEVELOPMENT OF YOUTH and FAMILIES

Programs include research and education in science, engineering, and technology to help youth develop leadership, citizenship, and life skills by providing access to quality after-school educational programs and positive youth development opportunities.

NATURAL RESOURCES

PROTECT, CONSERVE, AND ENCOURAGE THE WISE USE OF NATURAL RESOURCES

Programs include research and education in rangeland ecology, conservation and management and in grazing management and biological diversity.

AGRICULTURAL RESOURCES

SUPPORT AND STRENGTHEN THE AGRICULTURAL INDUSTRY

Programs include research and education in integrated pest management, small farm production, viticulture, strawberries, tree fruit and nut crops, irrigation, composting and cost of production studies.

ADVISOR STAFF

San Benito County Advisors

Lynn Schmitt-McQuitty
Youth Development Advisor

Devii Rao
Livestock and Natural Resources Advisor

San Benito County Emeritus Advisors

William Coates
Pomology Farm Advisor

Sergio Garcia
Livestock and Natural Resources Advisor

Cross County Advisors

Aziz Baameur
Small Farms Advisor

Larry Bettiga
Viticulture Farm Advisor

Mark Bolda
Strawberry & Caneberry Farm Advisor

Michael Cahn
Irrigation & Water Resources Advisor

Maria de la Fuente
Farm Advisor

Shimat Joseph
Integrated Pest Management Farm Advisor

Richard Smith
Vegetable & Weed Science Farm Advisor

Laura Tourte
Farm Management Advisor

RESEARCH SUPPORT STAFF

Julie Katawicz
Youth Bio Security Program Manager

Sandra Romero-Morales
Youth Science Mentoring Program

Emily Whiteley
4-H Program Representative

SUPPORT STAFF

Jennifer Gomer
Administrative Assistant

University of California
Agriculture and Natural Resources

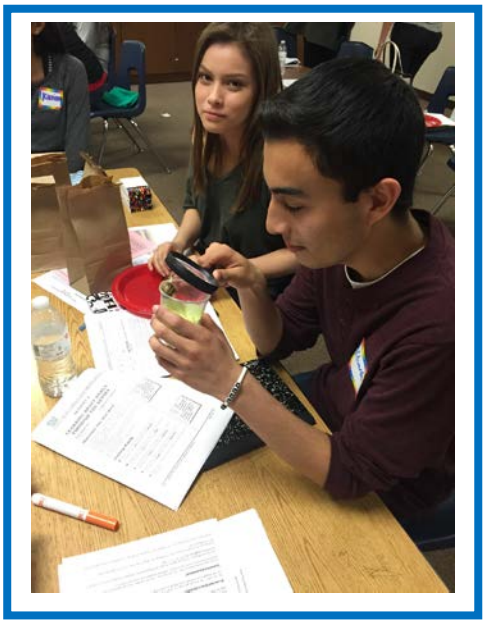
UC COOPERATIVE EXTENSION SAN BENITO COUNTY
BUDGET 2014-2015

		$	%
1.	**University Support**		
	a. ANR General Funds	177,781	12%
	b. Endowment Funds	13,857	1%
	c. Federal Funds	35,087	2%
	d. Other Revenue	27,701	2%
	e. Indirect Support	496,146	32%
	subtotal:	**750,572**	**49%**
2.	**San Benito Based Advisor-Generated Support**		
	a. Contracts & Grants	245,047	16%
	b. Gift & Endowment Funds	32,975	2%
	c. Other Revenue	386	0.02%
	subtotal:	**278,408**	**18%**
3.	**Cross County Advisor-Generated Support***		
	1. Strawberry & Caneberry Research	190,720	12%
	2. Farm Economics Research	10,270	1%
	3. Vegetable Crops & Weed Science Research	237,000	16%
	subtotal:	**437,990**	**29%**
4.	**County Support**		
	a. Direct Support	46,950	3%
	b. Indirect Support	9,700	0.63%
	subtotal:	**56,650**	**4%**
TOTAL		**$1,523,620**	**100%**

* *Research dollars secured by UC advisors housed in other counties with portions spent in San Benito County*

UC COOPERATIVE EXTENSION SAN BENITO COUNTY
PROGRAM AREA & ADVISOR HIGHLIGHTS

YOUTH, FAMILIES and COMMUNITIES



Lynn Schmitt-McQuitty: 4-H Youth Development Advisor
Specialty: Youth Science Literacy
Home County: San Benito

1. Science Technology, Engineering and Math Mentoring Program:
   Funded through a grant from the Office of Juvenile Justice and Delinquency Prevention, nineteen San Benito High School Teens provided weekly mentoring for third – sixth grade youth at Calaveras Elementary, R.O. Hardin Elementary and Margaret Maze Middle School. In partnership with the Hollister Youth Alliance, the "Tech Wizards" program uses peer mentoring to build positive relationships, strengthen science and engineering concepts and develop leadership skills. During the course of the project, teens engaged in over 100 hours of education and training while giving back to the community as role models for younger youth.
2. California 4-H STEM Leadership Team:
   Provide leadership, direction and support to the California 4-H STEM initiative to improve organizational capacity around non-formal science education. Driven by conducting a statewide needs assessment of the STEM initiative, there was evidence of 4-H STEM being institutionalized as a core focus in 4-H programming. However, the needs assessment also revealed gaps in opportunities for more intentional and systematic 4-H STEM programming, especially around capacity building efforts for front-line volunteer educators, 4-H staff, and the organization. Findings from this assessment were used to inform the field through educational presentations at professional society meetings and through peer-reviewed publications.
3. TechXcite:
   Provided training, resources and support for after school staff to deliver the curricula at traditionally underserved out-of-school-time program sites. Evaluation results generated by Compass Research and Evaluation (2014) indicate that 98% of instructors believe students learned and demonstrated improved competence in science and engineering. Most instructors very much or completely agreed that after participating in TechXcite, students showed improved attitudes toward science and engineering (65%), increased confidence in science and engineering (63%) and increased initiative to explore science and engineering topics (64%). During this period of review, the project wrapped up by conducting a workshop at the 2014 National Association of Extension 4-H Agents annual meeting on this collaborative partnership, and by publishing a peer reviewed article in the Journal of Extension.
4. Mitigating Zoonotic Disease in 4-H Animal Science Projects:
   Provided training, resources and support to 4-H volunteers to deliver 4-H Animal Science Bio-Security curriculum to develop youth proficiencies in mitigating zoonotic diseases. Preliminary data from this project suggests that youth participating in the treatment group did improve bio-security practices to mitigate contaminant transfer compared to their control-group counter parts.

5. BirdSleuths – Cornell Lab of Ornithology Citizen Science Project:
   Serve as the California coordinator of this 10-county project, as well as the project leader in San Benito County to assess how these formal educational materials work in 4-H settings. Volunteers and staff report youth gained greater environmental awareness, empowerment and education interest gains, an elevated comfort level using the scientific method and now see themselves as citizen scientists after participating.
6. San Benito County 4-H Community Club Program
   The 4-H community club program offers youth ages 7 to 19 to develop citizenship, leadership and life skills in a positive youth development environment. Current enrollment constitutes 331 youth and 148 adult volunteers that contribute over 5000 hours yearly to the education and development of young people in San Benito County.

NATURAL RESOURCES

Devii Rao:	Livestock and Natural Resources Advisor
Specialty:	Rangeland Ecology & Management, Rangeland Conservation, Grazing Management, Conservation of Biological Diversity, Watershed Protection & Management
Home County:	San Benito

1. Conducted in-person needs assessment interviews with 11 San Benito County ranchers.
2. Coordinated the San Benito Weed Management Area's Continuing Education Seminar for Ranchers and gave a presentation at the meeting about my program and medusahead control.
3. Coordinated the Central Coast Rangeland Coalition meeting which took place in Hollister and focused on rangeland water quality management and regulations.
4. Provided forage production letter to the San Benito County Farm Services Agency for their Livestock Forage Disaster (LFD) Program.
5. Identified and mapped the former Livestock Advisor's forage production plots for 2016 Farm Services Agency LFD program measurements.
6. Conducted a ranch visit and provided rancher information about how to improve habitat for wildlife.
7. Developed a website, blog, and Facebook page about the livestock and range program to keep ranchers and agencies informed about the latest research and educational opportunities.
8. Prepared grant proposal to study mineral deficiencies in beef cattle on the Central Coast.
9. Began working with local rancher to develop a study looking at different control methods for tumbleweed.

Sergio Garcia:	Livestock and Natural Resources Advisor Emeritus
Specialty:	Answering clientele phone calls and emails during position vacancy
Home County:	San Benito

Although retired, our former Livestock and Natural Resources Advisor continued to provide information to meet ranger and range manager needs through individual meetings, classes, phone calls, e-mails, web sites, office visits and farm calls until the new Advisor began their appointment in February, 2015.

AGRICULTURAL RESOURCES

Bill Coates: Pomology Farm Advisor Emeritus
Specialty: Tree Fruit and Nut Crops
Home County: San Benito

While retired, our former Pomology Farm Advisor continued to serve San Benito County in the following ways:

1. Responding to local tree and nut crop clientele information needs.
2. Walnut Husk Fly Research:
   This has become the major insect pest of walnuts in San Benito County. Dr. Van Steenwyk and Bill Coates have major research activities in San Benito County including low versus high volume sprays, testing of new insecticides, comparison of trap types and organic control.
3. Blackline Virus Research:
   Blackline decimated the local walnut industry in the 1980's and 1990's resulting in half of the local acreage being removed. Bill Coates is working with UC Davis Research Scientist Chuck Leslie on this project.

Aziz Baameur: Small Farms Advisor
Specialty: Small Farms, cultivar evaluation, nutrient management, irrigation, specialty crops
Home County: Santa Clara

Prior to retiring in July, Research and Extension activities in San Benito County included:

1. Research on small farms and beginner farmers, especially minority underserved growers.
2. Research projects on peppers and cost of production studies.
3. Research on the impacts of water irrigation levels on small field tomato fruit yield, and their edible quality.
4. Watermelon pollination study to maximize seedless watermelon fruit while reducing the number of seeded pollinators in the field.
5. Co-conducted a trial on mustard cover crop to assess its impact on fusarium disease in watermelon.

Larry J Bettica: Viticulture Farm Advisor
Specialty: Wine grape production, canopy management, pest management, rootstock and clonal evaluation
Home County: Monterey

The following field trials are being conducted to benefit San Benito County and central coast wine grape vineyard operators:

1. Evaluation of wine grape clonal selections and rootstocks
2. Evaluation of planting stock on growth and productivity of grapevines during vineyard establishment
3. Evaluation of training strategies of grapevines during vineyard establishment
4. Evaluation of root length and planting method on the development and production of dormant benchgrafts
5. Evaluation of disease management practices for grape powdery mildew and Botrytis bunch rot

Mark Bolda: Farm Advisor
Specialty: Strawberries & Caneberries
Home County: Santa Cruz

1. Raspberry Field Assessment:
   Meetings were held with Reiter Knowledge and Innovation to discuss salt issues in their 60 acre raspberry plot. This was followed by several consultations with their growers on San Justo and Union Roads.
2. Organically Grown Strawberry Transplants:
   Oversaw a trial spread over the tri-county region testing the usability of organically grown strawberry transplants with Phil Foster Farms. Impacts from this trail identified that "yes organic strawberry transplants do work", although they are significantly more expensive than conventional alternatives.

Michael D Cahn, Ph.D.: Farm Advisor, Irrigation and Water Resources
Specialty: Irrigation & Water Resources
Home County: Monterey

My research projects in San Benito County include:
1. Addressing water quality and quantity issues such as water conservation by agriculture.
2. Mitigating pesticide, nutrient and sediment impairments to public water supplies.
3. Improving microbial food safety for vegetable crops.

Maria de la Fuente, Ph. D.: Farm Advisor
Specialty: Mushrooms, compost, specialty vegetables, nursery crops, plant pathology and soil microbiology
Home County: Monterey

My programmatic themes are in alliance with the UC Agriculture and Natural Resources Strategic Vision, Sustainable Food Systems Initiative. My current research and extension programs include:
1. Beginner Farmers and Ranchers (USDA-NIFA)
   The long-term goal is to enhance the competitiveness and sustainability of beginning minority, immigrant, and tribal farmers and ranchers in California. By partnering with UC Berkeley specialists, the National Center for Appropriate Technology (NCAT), local agencies like Agricultural Land-Based Association (ALBA), Community Alliance with Family Farmers (CAFF), and 15 community-based collaborators, we included Hispanic, Southeast Asian and Native American farmers and mentors. This USDA-NIFA funded project offered in-depth, culturally relevant training to beginning minority farmers in combination with capacity-building to partner organizations to 1) improve access to sustainable farming information and technical support, 2) increase adoption of organic and sustainable farming/ranching practices, 3) enhance the economic viability of minority farms through increased sales and improved financial literacy, 4) strengthen farmer-to-farmer training networks, 5) provide referrals to agencies that provide access to land, insurance, financial, and other services, and 6) improve food safety and enhance food security for beginning minority farmers and their communities.

Richard Smith: Farm Advisor
Specialty: Vegetable Crop Production & Weed Science
Home County: Monterey

My work in San Benito County included:

1. Conducting weed control trials with cooperating growers by evaluating new technologies for controlling weeds in commercial spinach plantings and on a commercial pepper field evaluating new weed control options for pepper production.
2. Evaluations of nitrogen management to help growers comply with water quality regulations were conducted on peppers, broccoli and spinach.

Laura Tourte: Title: Farm Management Advisor
Specialty: Farm Management and Small Farms
Home County: Santa Cruz

1. Completed two cost and returns analyses for organic spinach and romaine hearts production. They are novel in that for the first time we include costs for high density planting and machine harvest in the organic spinach and automated thinning in the lettuce studies. You can view/download studies at: http://coststudies.ucdavis.edu and sort by name of crop.
2. Costs for mechanized crop thinning (lettuce) and machine harvest (spinach) were also included for the first time; also of interest are costs for regulatory programs (water and air quality) and food safety), in addition to other more standard categories.

Shimat Joseph, Ph.D.: Integrated Pest Management Advisor
Specialty: Entomology
Home County: Monterey

My work Research and Extension programs included work on:

1. Bagrada bug in Brassica continues to be a major pest of brassica crops in the Salinas Valley and Hollister causing severe crop losses for both organic and conventional growers alike. Local growers Charles Neito and Phil Foster were local cooperators working with me to address this problem.
2. Work with Jim Wilkinson on Bark borer problems in cherry trees which can girdle and kill young trees.

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