

Multi-Disciplinary US Olive Oil Stakeholders

Strategy Session Final Report

SEPTEMBER 18-19, 2016 MORRISON & COMPANY

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Meeting Overview

PURPOSE

To bring biological, physical, and socio-economic scientists and olive oil stakeholders together to identify research and/or extension opportunities, update information, and advance understanding of issues and problems impacting this specialty crop industry, specific to olive oil.

OUTCOMES

- Agreement on audiences, goals, and operating principles
- A strategic plan aimed to advance the olive oil industry in a unified and specific research project, deemed most valuable. This plan can be used as a basis for one or more future Specialty Crop Research Initiative (SCRI) grant applications.

AGENDA - DAY 1

Leadership Welcome

- Opening Remarks
- Introductions
- Brief history of the SCRI grant and its relationship with AOOPA and Morrison & Company

Context Setting

- Purpose & Outcomes/ Agenda
- Who Does What Exercise
- Meeting Format and Principles

Current State

- Presenting Interview Themes and Group Discussion
- Acknowledging Assumptions

Future State

- Ideal Outcomes Exercise (Short, Medium, and Longterm)
- Connecting the Stakeholders' Ideal Outcomes with the SCRI grant goals
- Closing

AGENDA - DAY 2

Day 1 Reflections

• Impact of Day 1; Review

Context Setting

- Purpose & Outcomes/ Agenda
- Meeting Format and Principles

Future State (Cont'd)

- Case for Change
- Review of short, medium, and long-term outcomes

Strategy (Part 1)

- Identifying Outputs (Who We Reach)
- External Factors & Barriers

Strategy (Part 2)

- Logic Model Creation
- Gantt Chart and Deliverables for SCRI grant project
- Individual Responsibilities
- Closing



NIFA Specialty Crop Research Initiative (SCRI)

Research and Extension Planning Project

GROWING EXTRA VIRGIN QUALITY: UNDERSTANDING AND IMPROVING THE CONSISTENT SUPPLY OF HIGH QUALITY US OLIVE OIL

The American Olive Oil Producers Association (AOOPA) was awarded the NIFA Specialty Crop Research Initiative: Research and Extension Planning Project. This grant funded AOOPA's strategic planning session, conducted by third-party consultants, on September 18-19, 2016 in Davis, CA. From this session, a strategic plan was drafted that identified the US olive oil industry's greatest research need and then developed a strategy to fill that need maximizing the unique set of multi-disciplinary olive oil stakeholders.

CURRENT STATE OVERVIEW

- Demand for US oil olives is growing, but growers are burdened by an expensive, timely process for improving their high quality extra virgin olive oil (EVOO).
- Growers are unable to uniformly verify their oil is meeting EVOO standards and are unable to readily detect impacts of production practices on EVOO quality.
- Consumers do not have confidence in olive oil meeting quality standards.
- Profitability and sustainability of the industry is stifled without this confidence in US oil.
- Active enforcement of olive oil quality is limited.
- There has been inconsistency in data collection on oil and fruit samples when standards were tried previously.
- Each US state is focused on different stages of the olive oil production process and creating a shared agreement on existing methods to qualify high quality EVOO at a national level benefits them all.
- US EVOO-producing states understand the value AOOPA contributes on a national level to individual growers/ grower organizations in helping them understand their existing olive oil's quality and value; while also recognizing they are not exclusively an organization focused on industry advocacy.

FUTURE STATE OVERVIEW

- Short Term Outcomes / Goals:
- Database developed for data sharing on US olive oil quality components
- Analyze samples of olive oil to identify oil defects
- Document existing research and share across industry stakeholders and among all olive oil growers nationally
- Determine screening methods to analyze quality indicators for US-produced oils
- Medium Term Outcomes / Goals:
- Validate chemical markers for defects in olive oil
- Conduct grower education on quality measures
- Develop affordable screening methods
- Long Term Outcomes / Goals:
- Develop a shared agreement of existing methods to improve high quality EVOO production among stakeholders
- Increase consumer confidence and demand, while balancing grower needs for a simplified, uniform method to demonstrate high quality EVOO.
- Increase domestic olive oil production and sales

ASSUMPTIONS ON THE CURRENT STATE AND FUTURE STATE

On the Crop

- Olives are very efficient in their water usage.
- Olives are a sustainable crop.
- Three main varieties grown by US growers represent the bulk of volume.
- These three main varieties are imperfect however.
- Olive knot is the most prominent disease nationwide.
- Olive fly is the most prominent pest nationwide.
- There are fewer costs of production required in comparison to other crops.
- 20% of olive growers produce 80% of olive oil production in the US.
- There are 43,000 planted acres of olive oil nationwide.



ASSUMPTIONS ON THE CURRENT STATE AND FUTURE STATE (CONT'D)

On Industry Factors

- Industry faces regulatory, water and labor issues.
- Industry has various size growers.
- Limited geographic areas to grow olive oil.
- There are broad, unenforceable standards.
- Viable industry in CA.
- Foreign subsidies affect ability to compete.
- The olive oil industry is comparable to the wine industry 20 years ago.
- The olive oil industry is a growing industry.
- The US olive oil industry produces 4 million gallons of oil annually.
- The olive oil industry is innovative.

On the Consumers

- American olive oil prices must be higher than imports given higher costs of production/ lack of subsidy.
- There is a split market.
- There is a romanticized view of Italian olive oil.
- Demand for high quality olive oil is increasing.
- Affordable prices must be maintained for consumers.
- The industry is implementing a super high density growth model focused on the Arbequina variety of olive oil. Arbequina is the most popular.
- Olive oil can have inaccurate labels communicating quality.
- Americans consume more olive oil than is produced in US.

On the Product

- Olive oil is a healthy product.
- There is no uniform quality standard for olive oil.
- There is a lack of consumer education on US olive oil.
- Consumption 95% of olive oil consumed in US is imports; 5% is domestic.
- Imported oil doesn't always meet extra virgin quality.
- Demand outweighs supply.

Barriers to the "Future State"

- There is an unwillingness to share information on the part of growers.
- There is a reluctance of growers to share information that would be shared nationally.
- Some growers have been hurt in the past who have produced oil that failed standards.
- Need government action on enforcement of quality standards. No guarantee of change to future state.
- Retailers will need to have more trust and acceptance on testing of olive oil/standards more.
- Mission creep is always a risk. The project could end up being too broad.
- There could be difficulty in designing the data collection methods and organization of the database. We need to make sure we know what we're collecting and why. This database needs to be able to answer specific questions and provide useful information.
- Universities may not all be on board or participating at the same level.
- There could be inconsistent collection of data and samples of oil and fruit.
- It could be difficult to create a successful grant application that ensures funding.
- Are we able to appropriate satisfy the needs of states outside CA?
- We've experienced ineffective communication of results in the past; both in interim results, as well as final results.
- Sometimes we have unclear goals, and we may lack an actual deliverable at the end of five years.



Mrs. Toni Scott, Principal at Morrison & Company, facilitates the National Olive Oil Research Forum in developing a strategy to achieve their research goals for the American Olive Oil Producers Association's SCRI grant proposal submission.



Who Does What

NAME	ORGANIZATION	ORGANIZATIONAL REACH	CORE RESEARCH PROJECTS	KEY RELATIONSHIPS/ PARTNERS	STRENGTHS	TOP GOAL FOR THE OLIVE OIL INDUSTRY	
JENNIFER GILLET- KAUFFMAN	University of FL	Olive Pest Management Research and Extension Teaching	• Surveys of Insect Pest • Vectored Pathogens	• Extension/ Food Science/ Pathology/ Florida Regulators • Inspectors • USDA	Social media Leadership Grant writing	Keeping olive fruit fly out of FL, GA, TX	
MAYO RYAN	CA Olive Ranch	Ag Operations	Regenerative Agriculture Irrigation efficiency Precision farming	 • UC Davis Olive Center • CSU Chico • Grower Partners • AOOPA • OOCC • History • Experience • Depth 		See everyone succeed in the market. Product Quality	
ERICK SMITH	University of GA	Small Fruit Specialist	• Horticulture and Extension	Collaboration with: • Pathology • Entomology • Ag engineering • Economists	Horticultural production	Increase Yield	
DUNCAN MACEWAN	ERA Economics	• Consulting • Research • Produce industry	 Ag Water Nexus; focused on California Working on SCRI with genome center with improved lettuce breeding Ground water in CA 	State and federal governments UC Davis	Economics applied modeling with agriculture and water	Growth within split market - both production and local specialty.	
DAN KENNEDY	Kennedy Couto Farms/ Kennedy Ranch	Partner	• Glenn County Olive Pest Management District	• AOOPA	• High density olive production	More study/ production	
SERHAT ASCI	CSU, Fresno	Research and Teaching Institute for Food and Agriculture	 Specialty Crops Pesticide use in CA Demand Analysis 	 University of FL University of Texas A&M DPR USDA ARI Production hub for specialty crops; Drawing from a very diverse, long research history 		Increase collaboration in olive oil industry	
JAY NOEL	ERA Economics	Principal Economist	TradeMarketProduction AnalysisWater issues	• Cal Poly faculty • Industry organizations	Grant writing	• Increase market penetration • Increase policy	
MONTE NESBITT	Texas A&M	• Orchard Crop • Production Specialist	• Variety Testing • Climate	Agrilife ResearchTexas TechTexas Assoc. Olive Oil	Outreach capability 54 counties with county extension. 4,000-5,000 acres in TX	Economic and Production Sustainability	



NAME	ORGANIZATION	ORGANIZATIONAL REACH	CORE RESEARCH PROJECTS	KEY RELATIONSHIPS/ PARTNERS	STRENGTHS	TOP GOAL FOR THE OLIVE OIL INDUSTRY
SELINA WANG	UC Davis Olive Center Food Science and Technology	Research Director and Asst. Adjunct Faculty	• Increase olive oil quality processing/ chemistry	Researchers around the worldIndustryOrganizationsUniversities	• Diversity • Collaboration	 Increase quality/ processing technology Increase yield and viable usage for byproducts
STEPHANIE JUNG	Cal Poly, SLO Food Science and Nutrition	Food processing Food engineering Enzyme biodiversity	Olive pomace added value to wastewater.	 Understanding characteristics of olive pomace Application for feed, fuel, and food. Improving processing Bioconversion Sustainability 		Helping the olive oil industry by improving practices.
PAT RICCHIUITI	PR Farms and Enzo Olive Oil Company	President	Water Equipment Nutrition Equipment Harvest Equipment Sensors for infrared imaging to develop plant and schedule for conserving water	 AOOPA COOC OOCC CA Fresh Fruit Association Nisei Farmers League Farm Bureau Water District 	• Leadership	Growth and diversity in uses Educating consumer on health aspects of olive oil Marketing. Profitability Need to make money Collaboration
LOUISE FERGUSON	UC DavisStatewide olive extension specialist	Statewide and national, as Statewide extension	Orchard design Mechanical harvesting and pruning	• University of CA	 Good understanding of tree crops Mission oriented scientist Strong international community 	Sustainability
JEAN-XAVIER GUINARD	Sensory scientistConsumer researcher		Extra virgin olive oil Healthy flavors research Healthy ingredients to replace not as healthy. Replace butter with olive oil. Citrus Research Board with mandarins. MARS Company	• Citrus Research Board • UC Davis	• Holistic approach. Both qualitative and quantitative research.	Diversify olive oil offerings – lack of diversity Raising consumer awareness
DAN FLYNN	UC Davis Olive Center	Executive Director	• Moved forward more than 100 research projects.	 Faculty at UC Davis Table olive industry; government Help industry get legislation passed as technical advisor 	CollaborationCommunicationStrategy	Increasing quality and efficiency



NAME	ORGANIZATION	ORGANIZATIONAL REACH	CORE RESEARCH PROJECTS	KEY RELATIONSHIPS/ PARTNERS	STRENGTHS	TOP GOAL FOR THE OLIVE OIL INDUSTRY
SUE LANGSTAFF	Sensory Panel	Specialty wine and beer Olive oil	Accreditation of American oil chemist's society. Only panel to be accredited	Work with any project that has a sensory component	Olive oil sensory training, education and judging	Raise awareness as to identifying defective olive oil and eliminating from market
KIMBERLY HOULDING	AOOPA	President and CEO		State and federal associations OOCC CA Olive Oil Committee; Growers, millers, researchers, etc.	Leadership Unity Advocacy Strategic planning and public relations	Growth Sustainability Fair access to global market Profitability-How can we grow industry in sustainable and fair market?



Dave Orth

As a group exercise, all stakeholders of the National Olive Oil Research Forum introduced themselves using a matrix visual posted in the room.



Dr. Louise Ferguson, PhD. also introduces herself through the matrix exercise and demonstrates her expertise in Lego construction. Studies show toys, such as Legos, can be helpful as a tool to spark creativity and remain focused for long and complex decision making.



Themed Data from Stakeholder Interviews

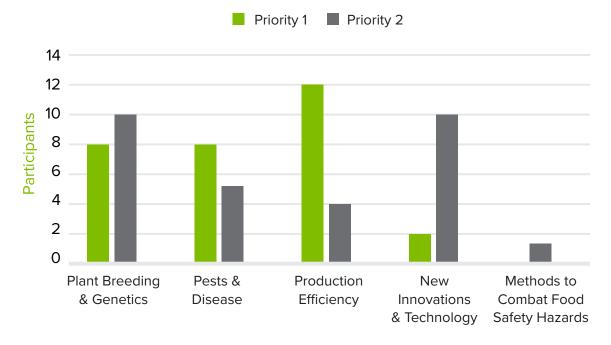
As part of building stakeholder alignment to determine a central and pressing research project for the US olive oil industry, Morrison & Company conducted individual and confidential interviews in August and then presented the themes during the session. Afterwards, the group gathered to discuss trends and patterns they observed throughout the findings. The primary themes focused on collaboration, project priority areas, and the perception of the US olive oil industry as a whole.

INTERVIEW DETAIL SPECIFICS

- Average interview lasted between 25-30 minutes
- 31 stakeholders were either personally interviewed or asked to complete an online survey reflecting their opinions, findings, and experiences, specific to the US olive oil industry.
- Five states were represented Arizona, California, Georgia, Florida, and Texas
- Researchers, industry-leaders, growers, economists, nutritionists, and consultants were all interviewed with the same set of questions.

TOP RANKING PRIORITIES

SCRI Potential Project Focus Areas

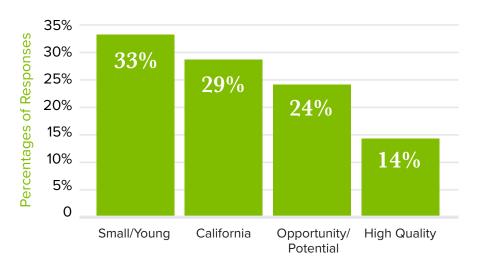


USDA-Issued Priorities



US OLIVE OIL INDUSTRY PERCEPTIONS

What is the first word that comes to mind for the US Olive Oil Industry?



MAKING THE SESSION SUCCESSFUL

What would make this session a succes to you?

"I'd like to see action items; not just talk. A plan to move forward." "To have a solid, unified plan."

"Come out with clear researchable goals that could ground truths and demonstratable results."

To have good, quality discussions on priority areas and having a joint view that reaches agreement on what to pursue. Developing a common message for the industry." "Identification fo a specific issue the industry can focus on." "I'm hoping to talk to researchers to find partnership within the industry to get work done even if we don't apply for grant."

"Solid implementation plan designed to move the industry forward."

"If I had the comfort level of knowing if we'd actually get grant and also being united in the decision on what research to conduct for the project." "To have a constructive, collaborative discussion and have a clear picture of industry's priorities and how we are going to organize those; developing a work plan for going forward."

"To think collectively on this and not just as individuals."

"I just want to learn more about the olive industry and meet more people who are researching and in extension work, based in California to learn from them..."

"Agreeing upon a list of priorities. If we can alignment around objectives, that alone is a win."



Logic Model

The stakeholders developed the following Logic Model (see below) out of the two day strategy session. Through a series of facilitated exercises, the group formed a unified "situation" (i.e., current state) and then determined important short-term, medium-term, and long-term outcomes needed most for the US olive oil industry to continue growing and gaining greater profitability (i.e., future state outcomes). The second day was predominantly focused upon the industry's inputs and what the various entities are willing and capable of committing to and what activities need to be conducted (see outputs and external factors/barriers below).

Logic Model: Growing Extra Virgin Quality: Understanding and Improving the Consistent Supply of High Quality US Olive Oil.

Situation

Demand for US oil olives is growing, but producers are burdened by an expensive, timely process for certifying olive oil as extra virgin grade. Consistent quality of domestic supply of extra virgin olive oil is a growing national concern as production extends to new growing climates. The purpose of this SREP is to develop a faster, more affordable, scientifically-validated method to analyze olive oil and promote production practices that increase olive oil quality to increase profitability for growers, increase consumer confidence, and strengthen the entire specialty crop industry. A database with results will be developed from the oil tested as well as a grower toolkit.

INPUTS OUTPUTS OUTCOMES Growers in CA. Medium TX, FL, and GA · Review current methods Advisory Committee for chemical, sensory Growers analysis of olive oil University Researchers **PROJECT ADVISORY** that determine quality · Olive Oil Chemists **COMMITTEE:** and purity Extension Specialists Test new methods Economists · Collect oil and fruit for · Retail Associations analysis • Database Developer Analyze oil for • Farm Advisors Instrument /Equipment components Manufacturers Collect info on growing Food Specialist submitted oil · Sensory Scientists **PROJECT TEAM:** Collect data from growers (through extension specialists) on growing Extension scientists from CA, FL. GA, TX conditions ASSUMPTIONS: US demand for high quality olive oil is increasing. US · Define best methods for consumers demand more extra virgin olive oil than is · Conduct literature review currently produced in US. Oil of current research an have inaccurate labels on standards. Olives are a · Define inputs for database and develop EXTERNAL FACTORS/BARRIERS: Develop website for Conduct industry outreach testing exist. Quality of olive Publish and share results

GANTT Chart Information 2016-2017

SCRI Strategic Session Davis, CA

QUARTER OF:	9/18/2016 9/20/2016	10/1/2016	1/4/2017	4/9/2017	7/3/2017	10/16/2017	1/18/2018
Project Coordinator: Kimberly Houlding							
Production							
Lead for Component: Louise							
Literature Review (Louise)							
Database template with processors/farm advisors reviewed with growers (Louise +)							
Design collection of oil sample - lunch bag kit. Prelabeled, pre-posted - (Sue)							
Grower workshops/outreach							
Website with results of oil sample							
Pre harvest-post harvest meetings							
Maps where activities are happening							
Chemical Analysis/ Database Development							
Lead for Component: Selina Wang							
Quality Analysis- inexpensive, fast, accurate. Help producer monitor quality							
Screening using known methods to screen oils. FFA; UV;DAGS; PPP. NIR.							
Identify top 3 to 5 volatile compounds for defects							
Consult with private sector as needed regarding quick and extensive testing							
Fingerprinting of different varieties and growing envrionments. Fatty acid profile; sterol profile; waxis.							
Consumer and Markets							
Lead for Component: Kimberly Houlding							
Engaging other stakeholders in process (retail, nutrition, consumer groups)							
Literature review on nutritional/consumer preference and marketing							
Engage environment, resources, and agricultural (ERA) economists and define new steps forward							
Impact of fraud on consumers/producers							
Positive financial impact on rural communities							
Action Items prior to SCRI Phase II (Likely) Grant Release							
Lead for Compontent: Kimberly Houlding / UC Davis							
Develop a Memorandum of Understanding (MOU) between UC Davis and likely applicant on roles and responsibilties of upcoming SCRI Phase II grant							
Review MOU with AOOPA Board of Directors							
SCRI Phase II Grant (Likely Release)							

Where do we go from here?

As the session closed, the participants developed a communication plan in order to effectively disseminate the information gained from this session together and ongoing as the Growing Extra Virgin Quality: Understanding and improving the consistent supply of high quality US olive oil project begins implementation.

COMMUNICATION AND MESSAGING PLAN

Value Proposition 1: Open Communication and Collaboration among stakeholders

Effective Immediately

- Share contact information
- Use networks efficiently and strategically
- Look for new ways to collaborate since there is a lot of overlap.
- Identify a key contact from each university

Quarterly

• Digest the strategy session for a few weeks and then continually dialogue through an quarterly conference call with the entire group of likely SCRI participants

Year-End 2016 / First Quarter 2017

• Publish results

Ongoing

- Continue to empower each other in our nationwide efforts
- Leadership of all the organizations respective entities to dialogue today.
- Give others information gained at this session and research findings through the shared database, which will be created in the near-term future

Value Proposition 2: Wider Audience Exposure

- Provide a monthly update through AOOPA
- National Production Marketing Meeting

Quarter 2-3 2017

 Develop Memorandum of Understanding (MOU) between UC Davis and potential SCRI applicant, reviewed by AOOPA.

Quarter 3-4 2017

• Prepare for SCRI Phase II Release

PARTICIPANTS BY OLIVE OIL SECTORS AND CONTACT INFORMATION

Industry Stakeholders Specialty Crop Sector)

- Adam Englehardt
 President US Operations, Boundary Bend Olives
- Pat Ricchiuti
 President, Enzo Olive Oil Company
- Gregg Kelley President & CEO, California Olive Ranch
- Mayo Ryan VP Agriculture, California Olive Ranch
- David Garci-Aguirre

 Manager of Production/Master Miller, Corto Olive Co.
- Dan Kennedy Owner & Partner, Kennedy-Couto Partnership
- Patty Darragh

 Executive Director, California Olive Oil Council
- Lisa Pollock Marketing Director, California Olive Oil Council
- Michael O'Hara Garcia
 President, Florida Olive Oil Council
- Sue Langstaff
 Sensory Panel Specialist, Applied Sensory LLC
- Kimberly Houlding,
 President and CEO, American Olive Oil Producers
 Association (AOOPA)



PARTICIPANTS BY OLIVE OIL SECTORS AND CONTACT INFORMATION (CONT'D)

Research and Extension Stakeholders (Scientific Community)

• Serhat Asci

Assistant Professor, Department of Agricultural Business, CA State University, Fresno

• Louise Ferguson

Olive Extension Specialist, UC Davis

• Dan Flynn

Executive Director, UC Davis Olive Center

• Jennifer L. Gillett-Kaufman, Ph.D.

Associate Extension Scientist, Entomology & Nematology Department, University of Florida and Institute of Food and Agricultural Sciences Extension; Olive Research and Extension Team leader

• Jean-Xavier Guinard, Ph.D.

Sensory Scientist and Consumer Researcher, UC Davis

• Stephanie Jung, Ph.D.

Food Science and Nutrition Department, CalPoly

• Duncan MacEwan, Ph.D.

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• Monte Nesbitt

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• Erick D. Smith, Ph.D.

Assistant Professor, Department of Horticulture-Tifton Campus, College of Agricultural and Environmental Sciences & Family and Consumer Sciences, The University of Georgia Cooperative Extension

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