

Improving Lamb Marketing, Quality, and Profitability: Options for California Producers Workshops

Grant Final Report

Submitted by California Wool Growers Association

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Overview

California Wool Growers Association (CWGA) developed four interactive/hands-on producer and industry stakeholder full-day workshops that focused on applying advanced management practices focused on lamb quality. These practices, combined with California's lamb production system and resources, can help mitigate the inconsistent U.S. seasonal supply (and subsequent lamb quality) issues resulting in a more steady supply of quality lambs throughout the year. Innovative practices that were presented included aseasonal and accelerated lambing systems, improving ewe productivity through genetic selection, adopting best management practices (such as electronic identification), utilizing ultrasound technology to pregnancy check ewes or employing teaser rams to increase ewe efficiency, and adopting specialized feeding programs designed to shorten or extend marketing periods based on market supply and demand conditions. If California producers are successful in implementing these practices to better manage quality lamb supplies, it will improve California producer profitability and sustainability and provide other regions of the U.S. with a production model that can further advance the industry's efforts in mitigating the domestic seasonal lamb supply issues.

Workshops

Four one-day regional workshops were held during the week of January 15th, 2018 in key sheep production regions of the State where the majority of medium and large scale producers are located. The workshops were held in a ranch setting to allow for interactive discussions and demonstrations of the different management practices being presented. Each workshop included the same presentation topics during the morning sessions while the afternoon demonstration/interactive sessions varied slightly according to available resources at each ranch facility. The afternoon session topics included:

- demonstrating the use of ultrasound technology to identify productive and unproductive ewes for management purposes,
- utilizing tools to improve ewe productivity (i.e. ram breeding soundness exams, teaser rams, etc.),
- undergoing a genetic selection exercise that incorporated evaluating phenotypic and genetic aspects (i.e. body scoring, etc.),
- demonstrating how to implement electronic animal identification and RFID technology,
- and engaging in a forage, feeding, or nutritional analysis.

The workshops were designed to be flexible to ensure there was ample time for attendee discussion and interaction on the topics presented, demonstrating the practices, adapting per

operation type, and the benefits and the costs associated with these practices. Interactive aspects varied by location due to available resources (i.e. sheep handling systems, etc.) and the speakers presenting on specific topics. Two out-of-state speakers were available for all four workshops and presented on accelerated lambing systems and the use of estimated breeding values in genetic selection decisions. A team of California industry experts (i.e. county extension agents, CWGA committee chairs/officers, national industry representatives, etc.) were available at each workshop to meet with local industry producers and stakeholders to further explore production challenges and strategies to increase lamb production, lamb quality, and how to better manage seasonal lamb supplies.

In addition, a condensed fifth workshop was held on January 20th which focused specifically on how to adapt these practices in a small farm-flock operation. This workshop was incorporated into the 2018 Shepherding School hosted by Flying Mule Farm (in collaboration with UC Cooperative Extension) held in Auburn/Sierra Foothills. Content was consistent with the other workshops and included as much interaction by attendees on the topics presented as possible. Speakers were limited to Dan Macon, CWGA Vice President and UC Cooperative Extension Agent for Placer and Nevada Counties, local sheep industry experts, and a local veterinarian. Refer to Appendix A for agendas for each workshop.

Workshop were held at the following locations:

- January 15th – Etchamendy Sheep Ranch, Bakersfield/Wasco
- January 16th – Emigh Goosehaven Ranch, Dixon/Rio Vista
- January 17th – California State University, Chico Sheep Farm, Chico
- January 18th – UC Hopland Research & Extension Center Sheep Station, Hopland/Ukiah
- January 20th – Flying Mule Farm, Auburn

The total attendance for the five workshops was 126 people, which was within expectations. The attendance at the Hopland/Ukiah location was smaller than anticipated possibly due to weather, lambing, or other unknown reasons. Attendees included CWGA members, non-members, producers representing commercial, small flock, seedstock, showlamb, and fiber operations, targeted grazers, and industry stakeholders (i.e. USDA agency representatives). Registrations for the workshops held in Bakersfield/Wasco and Dixon/Rio Vista had to be closed due to overwhelming response need to ensure the objective for attendee interaction was achieved. A breakdown of workshop attendance is provide below.

Location	Registered	Speakers/Hosts	Total
Bakersfield/Wasco	50	10	60
Dixon/Rio Vista	28	11	39
Chico	22	10	32
Hopland/Ukiah	16	10	26
Auburn	10	3	13
Total Attendees	126	4	170

Attendees at all five workshops received a packet of information that aligned with the topics presented. The packet included the following items:

- 12 U.S. Sheep Industry Best Practices Factsheets
 - Select for Prolific Genetics
 - Testing Rams for Breeding Soundness
 - Test for Pregnancy Status
 - Cull Underperforming Ewes
 - Breeding Ewe Lambs at 7 – 9 months
 - Accelerated Lambing Cycles
 - Optimal Nutrition
 - Manage for Seasonal Changes in Reproduction
 - Reduce Lamb Loss
 - Disease Prevention and Treatment
 - Match Reproduction to Management
 - Use Crossbreeding
- Body Condition Scoring of Sheep, Oregon State University Extension
- FAMACHA Information Guide
- California Department of Food & Agriculture New Limitations for Sale & Use of Antibiotics in Livestock factsheet and brochure.
- USDA Wildlife Services Livestock Protection Dogs factsheet.

Feedback

Attendee feedback during the workshops and following was positive and suggested attendees were open to adopting new practices to better manage flocks and market lambs. There was a consensus that there is a strong demand for future workshops in a similar format – on-ranch setting, interactive demonstrations, and discussion for exchange of information between attendees (producers, speakers, location hosts, etc.). Many attendees commented on the benefits of being able to interact with other producers was invaluable and the hands-on experience out in sheep corrals made the workshops more engaging and effective in relaying the information presented during the morning session.

Highlights of the workshop evaluations are below:

- *What was the best part of this workshop?*

According to the surveys submitted attendees at all locations enjoyed the interactive aspects of the workshop. Some recommend allowing more time for discussion at future workshops and meetings. Many commented on the benefits of learning from a variety of industry professionals about different practices that are and can be implemented in the California sheep industry.

- *Which practices learned at the workshop do you plan to implement within the next year?*

Of all the management practices presented and discussed, utilizing ultrasound to pregnancy check ewes was the practice most attendees plan to implement over the next year. Many learned from the speakers and producers currently using this practice, the benefits of knowing how better manage bred/open ewes (i.e. single or twins, nutritional needs) in regards to ewe efficiency, lamb crops, direct and indirect costs, and culling practices. In fact some producers that have not been open to learning about new practices indicated they are were going to start ultrasounding ewes because of the workshops. The other practices attendees plan to implement are body condition scoring in determining the health and nutrition needs at different times of the year (i.e. breeding, lambing), as well as FAMACHA scoring. In addition a few producers listed learning more about and enrolling in the National Sheep Improvement Program (NSIP).

- *What could we do differently?*

A struggle CWGA continues to face is how to develop a workshop or meeting program that applies to the diverse sheep operation types – commercial, farm-flock, seedstock, showlamb, fiber, etc. in California. The workshops were designed to be broad in scope in that the information presented can be beneficial to all operation types with the same objectives. In addition, the Chico and Hopland workshops were planned with the expectation for smaller sized operations. Only two attendees commented the information provided was more relevant or practical to a large-scale operation. Only receiving two comments suggests the workshops were successful in providing information and a format that benefited all operation types.

- *What topics would you like to have covered at future workshops or our annual meeting?*

The following topics were noted as of interest for future workshops: more information on forage analysis and genetic improvement, flock management (i.e. breeding, lambing, vaccine practices), basics of sheep production (i.e. Sheep 101), and wool classing & sorting.

Concluding Comments

There were seven objectives of this project as listed below. Of those objectives, those highlighted in *italics* were achieved. Those objectives not in *italics* are long-term objectives that cannot be measured at this time. However based on attendee comments appear to be achievable if attendees do implement the practices presented at the workshops.

- *To identify and educate California sheep producers on the opportunities to improve production efficiency via genetics, aseasonal breeding, production efficiency, feeding practices, nutritional evaluation, lamb feeding practices, and best management practices.*
- *Demonstrate the application of strategic management practices to help mitigate the impacts of an inconsistent U.S. seasonal supply (and subsequent lamb quality) issues resulting in a more steady supply of quality lambs throughout the year. Thus helping to*

reduce the impacts of seasonality on the U.S. slaughter lamb supply and lamb quality issues in the U.S. lamb production system.

- To utilize the California environment/production system to enhance California producers' ability to fill a prominent production gap in the U.S. slaughter lamb supply and lamb market, thus providing a consistent supply of high quality of California and U.S. slaughter lambs and lamb product throughout the year.
- *To decrease the cost of lamb production and improve California producer profitability.*
- To provide a lamb production model combining genetics, aseasonal breeding, production efficiency, feeding practices, nutritional evaluation, and best management practices that can be adopted and/or adapted by producers in other regions of the U.S. to further contribute to the industry's efforts in reducing the seasonality impacts on domestic lamb production and the resulting effects on lamb quality.
- *To provide a forum for sheep industry leaders, producers, and stakeholders to further explore challenges and strategies to increase lamb production, lamb quality, and how to better manage seasonal lamb supplies in an effort to improve profitability and sustainability of the California and U.S. sheep and lamb industry.*
- *Further sheep producer awareness, education, and adoption of practices that deliver lasting value and contribute to the sustainability of the California and U.S. sheep and lamb industry.*

Looking Ahead

Overall, this effort was successful in achieving many of the goals of the project. Four full-day workshops and one condensed workshop were hosted throughout California demonstrating how to apply innovative management practices to help mitigate the impacts of an inconsistent U.S. seasonal supply issues resulting in a more steady supply of quality lambs throughout the year. These workshops clearly provided a forum for sheep industry leaders, producers, and stakeholders to further explore challenges and strategies to increase lamb production, lamb quality, and how to better manage seasonal lamb supplies in an effort to improve profitability and sustainability of the California and U.S. sheep and lamb industry.

Looking ahead, additional workshops are needed and must incorporate interactive, hands-on methods for presenting the information as it is more effective and valuable to those attendance. Such future workshops should not only further discuss the innovative practices, but to also provide sheep industry leaders, producers, and stakeholders an opportunity to provide information on well-established best management production practices that can also help achieve the objectives of this project.

Appendix A

Improving Lamb Marketing, Quality, and Profitability: Options for California Producers Workshop

January 15, 2018 ~ Etchamendy Sheep Company, Bakersfield

Agenda

8:00 am – 8:30 am	Registration & Gathering
8:30 am – 8:45 am	Welcome & Introductions – <i>Morgan Doran, UCCE Napa, Solano, & Yolo County</i> – <i>Johnny Etchamendy, Etchamendy Sheep Company</i>
8:45 am – 9:30 am	U.S. Lamb Market Challenges and Potential Solutions – <i>Wes Patton, American Lamb Board</i>
9:30 am – 10:15 am	Genetic Selection to Improve Lamb Quality and Ewe Productivity – <i>Rusty Burgett, National Sheep Improvement Program</i>
10:15 am – 10:30 am	Break
10:30 am – 11:15 am	Increasing Lamb Production Efficiency with Accelerated Production – <i>Dr. Richard Ehrhardt, Michigan State University</i>
11:15 am – 12:00 pm	Effective Nutrition Management Practices – Proper Forage Analysis & Mineral Supplementation – <i>Dr. Allen Petty, UC Davis</i>
12:00 pm – 1:00 pm	Lunch
1:00 pm – 2:00 pm	Management Tools for Herd Optimization and Production Efficiency – Interactive Presentation & Demonstrations – <i>Ryan Indart, Indart Group</i> – <i>Roger Gordon</i>
2:00 pm – 3:00 pm	Best Management Practices for Sheep Operations – Interactive Presentation Demonstrations – <i>Morgan Doran, UCCE Napa, Solano, & Yolo County</i> – <i>Johnny Etchamendy, Etchamendy Sheep Company</i> – <i>Ryan Mahoney, Emigh Livestock</i>
3:00 pm – 3:45 pm	Lamb Feeding and Management Practices – <i>Ryan Mahoney, Emigh Livestock</i>
3:45 pm – 4:30 pm	Group Discussion

**Improving Lamb Marketing, Quality, and Profitability:
Options for California Producers Workshop**

January 16, 2018 ~ Emigh Livestock

Agenda

8:00 am – 8:30 am	Registration & Gathering
8:30 am – 8:45 am	Welcome & Introductions
8:45 am – 9:30 am	U.S. Lamb Market Challenges and Potential Solutions – <i>Lesa Eidman, Superior Farms</i>
9:30 am – 10:15 am	Genetic Selection to Improve Lamb Quality and Ewe Productivity – <i>Rusty Burgett, National Sheep Improvement Program</i>
10:15 am – 10:30 am	Break
10:30 am – 11:15 am	Increasing Lamb Production Efficiency with Accelerated Production – <i>Dr. Richard Ehrhardt, Michigan State University</i>
11:15 am – 12:00 pm	Effective Nutrition Management Practices – Proper Forage Analysis & Mineral Supplementation – <i>Dr. Zach Rambo, Zinpro</i>
12:00 pm – 1:00 pm	Lunch
1:00 pm – 1:30 pm	Basics of Body Scoring & FAMACHA Testing – <i>Morgan Doran, UCCE Napa, Solano, & Yolo County</i> – <i>Dan Macon, UCCE Nevada & Placer County</i>
1:30 pm – 2:30 pm	Management Tools for Herd Optimization and Production Efficiency – Interactive Presentation & Demonstrations – <i>Richard Hamilton, Hamilton Bros.</i> – <i>Jason Bravos, DVM, Mill Station Vet</i>
2:30 pm – 2:45 pm	Break
2:45 pm – 3:45 pm	Best Management & Feeding Practices for Sheep Operations – Interactive Presentation Demonstrations – <i>Ryan Mahoney, Emigh Livestock</i> – <i>Jeff Clark, Emigh Livestock</i>
3:45 pm – 4:30 pm	Group Discussion

**Improving Lamb Marketing, Quality, and Profitability:
Options for California Producers Workshop**
January 17, 2018 ~ Chico State University
Agenda

8:00 am – 8:30 am	Registration & Gathering
8:30 am – 8:45 am	Welcome & Introductions – <i>Morgan Doran, UCCE Napa, Solano, & Yolo County</i> – <i>Celina Phillips, CSU Chico Sheep Unit</i>
8:45 am – 9:30 am	U.S. Lamb Market Challenges and Potential Solutions – <i>Wes Patton, American Lamb Board</i>
9:30 am – 10:15 am	Genetic Selection to Improve Lamb Quality and Ewe Productivity – <i>Rusty Burgett, National Sheep Improvement Program</i>
10:15 am – 10:30 am	Break
10:30 am – 11:15 am	Increasing Lamb Production Efficiency with Accelerated Production – <i>Dr. Richard Ehrhardt, Michigan State University</i>
11:15 am – 12:00 pm	Effective Nutrition Management Practices – Proper Forage Analysis & Mineral Supplementation – <i>Jed Asmus, January Innovation Inc.</i>
12:00 pm – 1:00 pm	Lunch
1:00 pm – 2:00 pm	Management Tools for Herd Optimization and Production Efficiency – Interactive Presentation & Demonstrations – <i>Brett McNabb, DVM, UC Davis</i>
2:00 pm – 3:00 pm	Best Management Practices for Sheep Operations – Interactive Presentation Demonstrations – <i>Morgan Doran, UCCE Napa, Solano, & Yolo County</i> – <i>Celina Phillips, CSU Chico Sheep Unit</i>
3:00 pm – 4:00 pm	Sheep Safety and Quality Assurance Training – <i>Celina Phillips, CSU Chico Sheep Unit</i>
3:45 pm – 4:30 pm	Group Discussion

**Improving Lamb Marketing, Quality, and Profitability:
Options for California Producers Workshop**
January 18, 2018 ~ UC Hopland Research and Extension Field Station
Agenda

8:00 am – 8:30 am	Registration & Gathering – <i>Morgan Doran, UCCE Napa, Solano, & Yolo County</i> – <i>Kim Rodrigues & Jim Lewers, Hopland Research & Extension. Ctr.</i>
8:30 am – 8:45 am	Welcome & Introductions
8:45 am – 9:30 am	U.S. Lamb Market Challenges and Potential Solutions – <i>Wes Patton, American Lamb Board</i>
9:30 am – 10:15 am	Genetic Selection to Improve Lamb Quality and Ewe Productivity – <i>Rusty Burgett, National Sheep Improvement Program</i>
10:15 am – 10:30 am	Break
10:30 am – 11:15 am	Increasing Lamb Production Efficiency with Accelerated Production – <i>Dr. Richard Ehrhardt, Michigan State University</i>
11:15 am – 12:00 pm	Effective Nutrition Management Practices – Proper Forage Analysis & Mineral Supplementation – <i>Dr. Allen Petty, UC Davis</i>
12:00 pm – 1:00 pm	Lunch
1:00 pm – 2:00 pm	Management Tools for Herd Optimization and Production Efficiency – Interactive Presentation & Demonstrations – <i>Brett McNabb, DVM, UC Davis</i>
2:00 pm – 3:00 pm	Best Management Practices for Sheep Operations – Interactive Presentation Demonstrations – <i>John Harper, UCCE Mendocino County</i> – <i>Jim Lewers, Hopland Research & Extension Center</i>
3:00 pm – 3:45 pm	Lamb Feeding and Management Practices – <i>Ryan Mahoney, Emigh Livestock</i>
3:45 pm – 4:30 pm	Group Discussion

Preparing Ewes for Lambing

Saturday, January 20, 2018 – 8:30 am – 12:30 pm

Flying Mule Farm – Auburn, CA

AGENDA

- I. Welcome and Introductions
- II. Sheep Handling
- III. Vaccination Programs
- IV. Health Feet = Happy Sheep = Happy Shepherd!
- V. Body Condition Scoring
- VI. Internal Parasites
- VII. Pregnancy Detection
- VIII. Questions
- IX. Adjournment