Let's Grow Program Round 1 – Funded Projects, 2015

2015 Sheep Producer Webinar Education Program

AWARDED TO:

Optimal Ag Consulting, Inc.

SCOPE:

Nationwide

SUMMARY:

A successful series of four webinars have been offered since the fall of 2013 in cooperation with the American Sheep Industry (ASI) Association with funding support from the Rebuild the Sheep Inventory Committee. Two more webinars are currently funded and scheduled to be presented in August and September of 2014. The presently proposed project will fund four additional educational webinars for sheep producers and aspiring sheep producers during the fiscal year of 2015. As a result of this project, over 400 sheep producers across the U.S. are expected to benefit from attending live educational webinars on timely and important topics that can help them be successful in today's challenging world. In addition, recordings of the webinars are expected to provide over 3,000 more participants access to these educational events by the end of the project. This project will help meet producer demand for more live educational events covering production and risk management topics important to sheep producers throughout the U.S.

STATUS:

Complete

PROGRESS REPORT:

Webinars from all funding cycles can be accessed through the <u>Resources tab of the Let's</u> <u>Grow Website.</u>

April 13, 2015 **Farm Security and Crisis Management: Dos and Don'ts in Hiring** Kay Johnson Smith - President and CEO Animal Agriculture Alliance Registrants: 137 Attendees: 39 Online Access: Video 199 / Slides 471 Recording of Event: <u>Farm Security</u> Copy of Slides: <u>PowerPoint Presentation</u>

June 23, 2015

Optimizing Reproductive Efficiency in Sheep Production with Strategic Nutritional Management

Richard Ehrhardt, Ph.D. - Small Ruminant Extension Specialist, Michigan State University Registrants: 302 Attendees: 109 Online Access: Video 565 / Slides 507 Recording of Event: <u>Optimizing Reproductive Efficiency</u> Copy of Slides: <u>PowerPoint Presentation</u>

August 25, 2015

Using EBVs to Achieve Your Breeding Goals

Dr. Dave Notter - Department of Animal Science Virginia Tech University Registrants: 317 Attendees: 148 Online Access: Video 335 / Slides 263 Recording of Event: <u>Using EBVs</u> Copy of Slides: <u>PowerPoint Presentation</u>

September 22, 2015 **Dietary Supplements: A Necessity or Folly?** Dr. Robert Van Saun - Professor of Veterinary Science Penn State University Registrants: 281 Attendees: 106 Online Access: Video 741 / Slides 4,034 Recording of Event: <u>Dietary Supplements</u> Copy of Slides: <u>PowerPoint Presentation</u>

Totals for all four webinars:

1,037 Registrations402 AttendeesOnline Access: Video 1,840 / Audio 5,275All 50 states participated plus the District of Columbia and 6 Canadian Provinces

American Sheep Industry Genetic Improvement Initiative

AWARDED TO:

National Sheep Improvement Program

FINAL REPORT:

Overview

The National Sheep Improvement Program (NSIP) was very fortunate to receive funding from the American Sheep Industry Association's Let's Grow program in round 1 for the U.S. Sheep Industry Genetic Improvement Initiative. The projects conductive with this funding have had a widespread and lasting impact on the NSIP and its ability to provide quantitative genetic analysis to the U.S. sheep industry. Projects funded included: development of the NSIP Ram Buyers Guide, production of 3 producer-highlight videos, allowed NSIP to conduct educational workshops and field days throughout the U.S., developed the Fine Wool Consortium and hosted 4 regional breeder forums.

Projects completed

Educational workshops and presentations

Increased education of the benefits of quantitative genetic selection has been outlined as a priority of increasing the adoption of the technology and improving the overall productivity of the U.S. sheep industry. The funds available allowed NSIP the NSIP program director to travel to and present at 37 different events in: Arizona, Arkansas, Colorado, Florida, Idaho, Illinois, Iowa, Kentucky, Kentucky, Michigan, Minnesota, Missouri, Montana, New York, Ohio, Oregon, Pennsylvania, South Dakota, Tennessee, Texas, Utah, Virginia, Washington, West Virginia, Wisconsin and Wyoming.

NSIP Ram Buyer's Guide

The goal of creating the NSIP Ram Buyer's Guide was to help commercial sheep producers utilize the quantitative genetic analysis information in their breeding animal selection decisions in order to improve productivity and profitability of the U.S. sheep industry. This guide helps producers to evaluate their current sheep productivity level focusing on the key economic production factors such as lambing and weaning rate, weight gain, carcass composition and parasite resistance. Once the current production level is quantified, goals are set for productivity improvement for increased profitability then the guide helps producers to identify the key Estimated Breeding Values in breeding rams to help reach those goals. Originally 500 hard copies of the Ram Buyers Guide were distributed at various workshops, starting with the 2016 ASI convention and the digital version on the NSIP website has been used countless times.

NSIP Regional Breeder Forums

The NSIP Regional Breeder Forums were held in 4 different locations: Spencer, IA with the Center of the Nation NSIP Sale; Springfield, IL in conjunction with the National Polypay Show and Sale; Dubois, ID with the USSES Centennial Celebration and Cookeville, TN with the Katahdin Hair Sheep International Expo. These forums were open to all members of NSIP as well as any other interested producers and featured educational topics relating to all aspects of sheep production. Topics included optimizing nutritional programs to maximize gene expression, the future of genomic technologies, improving genetic resistance to internal parasites and utilizing EBVs in selection decisions. Speakers included Dr. Ron Lewis, Dr. Dave Notter, Dr. Dan Morrical, Jerry Sorenson, Steven Anderson and several NSIP members. Over 100 NSIP members and prospective members attended these meetings.

Producer Highlight Videos

Three Producer Highlight Videos were filmed featuring various breeds of sheep in different production settings to demonstrate the benefits of using EBVs for improved productivity of the U.S. sheep industry. One video featured Helle Rambouillets, John Helle of Dillon, Montana and focused on the impact on productivity in finewool sheep raised in a range setting. The second video showcased commercial Midwestern production at Irish Acres Farm, Warren and Ellen O'Brion of Rio, Wisconsin and a third video demonstrated the application of EBVs with hair sheep and also co-grazing sheep with cattle at the Bonus Angus Farm, Bob and Amanda Nusbaum of Potosi, WI. All three highlighted flocks featured interviews with long-time members of NSIP as well as the farms/ranches. These videos were posted to the public on YouTube and to date, these videos have 12,658 views from around the world and have led to 104 people subscribing to the NSIP YouTube channel. Although not directly funded by this project, is also led to the development of tutorial videos to be posted on the channel to help members with data entry and submission as well as webinars to educate the industry on the benefits of quantitative genetic selection.

Fine Wool Breeding Group

AWARDED TO:

Funded as part of the American Sheep Industry Genetic Improvement Initiative

SCOPE:

Nationwide

SUMMARY:

This project is being developed to help improve the American wool clip by increasing staple length and improving micron. A major objective is to bring the American wool clip to the world wool standards to assist in producing longer, whiter and higher yielding wool.

STATUS:

Complete

FINAL REPORT:

Fine Wool Consortium

The Fine Wool Consortium was developed in order to encourage more producers of commercial fine wool sheep in the west and intermountain west regions to utilize quantitative genetic selection to improve their productivity and profitability of the sheep flocks. NSIP engaged with prominent, influential breeders of fine wool Rambouillet and Merino sheep to work collectively in making genetic progress then disseminating those genetics for increased productivity into the commercial sheep industry. Breeders involved in the consortium include John Helle, John Jewell, Rick Powers, Paul Erk, John Erk, Tom Boyer, Casey Earl, Beau Chapman, Matt Benz, Jody Ketterling, and Reid Redden/Texas A&M Experiment Station. The first project of the consortium involved establishing genetic linkages among the members' flocks, which helped improve the genetic analysis through NSIP. The Fine Wool Consortium has evolved into its own group and received funding directly through ASI's Let's Grow in order to advance their goals of improving fine wool genetics and getting those genetics out into the commercial industry.

Outcomes

With the funding from ASI's Let's Grow Program, the Nation Sheep Improvement Program has been able to better serve the U.S. sheep industry and help to improve the genetic potential of the nation's flock. This project allowed sheep producers throughout the country learn about the benefits of quantitative genetic selection and the impact it can have on the overall productivity of the nation's sheep flock. The benefits of this project will not end with the completion of this project and will be on going. The U.S. Sheep Industry Genetic Improvement Initiative has led to additional projects for NSIP and has also spurred the development of other producer groups to develop their own projects for productivity improvement.

Through this project, enrollment in the NSIP has risen by more than 100 flocks to a current level of 449 flocks enrolled and new flocks are signing up on a monthly basis. This has also increased

the number of sheep being selected with Estimated Breeding Values by over 5000 head. As the industry hears more about the benefits of using EBVs in selection, more producers enroll into NSIP and utilize the technology, which helps the industry nation-wide. Producers encourage each other to utilize quantitative genetic selection and the growth of the program is accelerating. The NSIP is extremely grateful for the industry's investment into productivity improvement and is continuing to make progress to better serve the industry.

Mentor Training for Small Ruminant For Profit School

AWARDED TO:

Kentucky Sheep and Goat Development Office

SCOPE:

Kentucky

SUMMARY:

In 2014, the Kentucky Sheep and Wool Producers partnered with the Kentucky Sheep and Goat Development Office to create the Small Ruminant Profit School (SRPS). SRPS was created in response to help the numerous new producers in our state learn to manage 1) the misconception of the intensive management needed to raise sheep, and 2) both internal parasites and foot health issues. Both of these issues have proved to be overwhelming for many of the new producers that entered into sheep production over the past four years. This situation is seriously compromising the sustainability of the sheep industry in Kentucky as some producers have already sold or are trying to sell their entire flocks. SRPS was an immediate action taken to reverse this trend and ensure the continued growth and success of Kentucky's small ruminant industry. The 2014 SRPS classes had 75 participants and we are already getting requests for registrations for the 2015 classes. SRPS will be offered again starting in the fall of 2015. Based on the demographics of the current participants and producers already asking about this upcoming year's program, we have decided to add two more locations for the program- southern and northern Kentucky. With the addition of these areas and the fact we will have a brand-new group of participants, we are in need of more mentors. Thus, KSWPA is already making efforts to find more mentors in these new areas. We are also in conversations with the Tennessee Sheep and Wool Producers Association about joining the program this fall as well. In August and September of 2015, KSWPA will be helping to conduct two more Mentor Trainings, similar to the ones held in 2014. Mentors are given resource materials and health kits to use during phone calls and farm visits. All these materials will need to be updated for the current mentors and created for the new ones. Funding from this grant will help provide the necessary materials and training needed to make the experience of the mentors a success.

STATUS:

Complete

PROGRESS REPORT:

FINAL REPORT:

SRPS had a total of 21 mentors and 55 participants complete the four-class course. The course covered topics like industry overview, markets, breeds, health, parasite management, genetics, reproduction, selection, quality assurance, facilities/equipment, annual production plans, foot care, nutrition, and record keeping. Of the participants, 50% were women who were the sole owners/operators of the sheep or goat operation. Veterans made of 9% of the participants. All the participants were white/Caucasian. All SRPS participants were polled with a pre-course evaluation to determine the main areas of interest for their operations. The majority of the

responses, 30%, indicated the largest need was general information on production and marketing of sheep and goats. Post course evaluation results:

- 66% response as of March 25, 2015
- Breakdown of participants based on production:
 - 5% currently not in production
 - 5% started production after entering into SRPS
 - 46% were already in production for at least year prior to SRPS
- Of all the participants who have not started production, all indicated SRPS helped them identify the type of operation they wanted to start within the next 12 months
- 100% of participants indicated SRPS increase their skills and/or knowledge of the sheep and goats. Areas indicated improvement in skills and knowledge were health management, reproduction, parasite management and nutrition
- 100% of participants indicated they plan to keep better records after participating in SRPS; 20% said they will participate in Kentucky State University's Goat Herd Improvement Program
- 100% of participants indicated they felt more confident in small ruminant production after the course
- 52% of participants indicated they identified ways to make their herds more productive after participating in SRPS
- 37% of participants created an annual production plan for their operations; another 16% indicated they will after reviewing the materials more after the course
- 37% of participants utilized their assigned mentors; another 11% indicated they will utilize their mentor once they started an operation

INITIAL REPORT:

- Mentors identified and signed a Mentor Position Description
- Mentor Training held in August 2015.
 - Mentors received notebooks with class materials
 - Health kits to use for on-farm meetings with their mentors
- 24 mentors this year
- Assignment of mentors completed after October 17th class
- Mentors are assigned based on information commonalities with the mentees such as geographic location and types of operations
- First class on Sept. 26th and had 63 people!
- 2nd class held on October 17th in conjunction with the 2015 Annual Producer Conference which allowed everyone a good opportunity to network
- Third class held in December 2015
- Focused on nutrition and quality assurance
- All participants received hands-on training on vaccinations, worming, hoof trimming and body condition scoring
- Next two classes will be held January 16, 2016, and March 5, 2016Next two classes will be held January 16, 2016, and March 5, 2016

- All graduates of the class will receive copies of all the presentations from the classes and a health kit with essentials needed in a small ruminant operation like a tube feeder, hoof trimmers, drench gun, etc.
- Mentors for the 2016-2017 round of classes will begin February 2016 and will be trained in August 2016
- Surveys will be given to participants and mentors to evaluate the success of the mentoring process, as well as the material provided in the program.

Montana Ram Sale Sheep Symposium

AWARDED TO:

Montana State University Sheep Extension Program /Montana Wool Growers Association

SCOPE:

Montana, South Dakota, North Dakota, Wyoming and Utah

SUMMARY:

The Montana ram sale sheep symposium is a targeted educational program which specifically targets the objective 1 put forth by the productivity improvement committee to "promote widespread producer use of quantitative genetic selection". To achieve this objective the symposium addresses steps suggested by the productivity improvement committee to 1) design an effective and broad communication plan to reach as much of the industry as possible, 2) link genetic selection to value-based pricing for slaughter lambs, 3) Position NSIP as "the" industry source for science-based sheep performance data and analysis. In addition, the proposed program addresses Objective 3 put forth by the productivity improvement committee to "develop a long-term plan for U.S. sheep research and producer education". Interactive polling software from participants will contribute to building a build a long-term approach for sheep educational programing in the MT, SD, WY, ND. Information garnered from polling might serve as a regional template in the western U.S.

STATUS:

Complete

PROGRESS REPORT:

The Montana Ram Sale Symposium took place on Sept. 16, 2015, at the Fort Keogh Livestock and Range Center in Miles City, Mont. The objectives of the symposium included:

- Educate commercial sheep producers on the benefits of NSIP
- Survey producer perceptions regarding HSIP and production dynamics and
- Establish a forum to guide decision making when purchasing rams using EBVs

Speakers at the symposium included:

- Dr. David Notter, Virginia Tech
- Dr. Whit Stewart, Montana State University
- Rusty Burgett, NISP
- Lesa Eidman, Superior Farms
- Panel Discussion from NSIP Producers:
 - Dr. Rodney Kott
 - Mr. John Helle Helle Rambouillet
 - Mr. Chase Hibbard Sieben Livestock
 - Mrs. Batty Sampsel Hughes-Newford Targhees

Symposium Outcomes:

- 85 participants from seven states and Canada
- Survey data collected to guide educational efforts for future NSIP programming
- Purebred and commercial producers in attendance gave very positive reviews

Ongoing Outcomes:

- 2015 Program survey results are being analyzed and disseminated
- 2016 Program
 - Ram Select Workshop and Symposium being planned
 - Ram selection decision making tools
 - Breakout sessions that incorporate hands-on-learning
 - National Speaker line-up

The Montana Ram Sale was held at AMS's Fort Keogh facility in Miles City.

It was standing room only during the symposium.



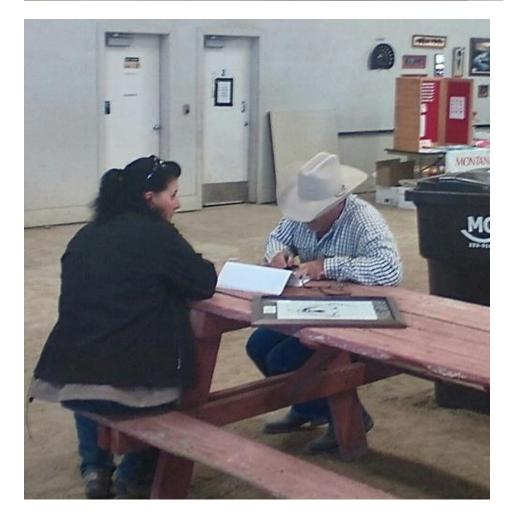


A photo of the sale data available to those interested in buying rams.

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Producers study the sale book prior to the sale.





The sale.



Use of Electronic Identification (EID) Technology to Enhance Lamb Productivity and Value-Based Marketing

AWARDED TO:

Mountain States Lamb Cooperative

SCOPE:

Wyoming, Montana, Iowa, Texas and Colorado

SUMMARY:

Productivity Improvement is the primary focus of the project with the implementation of Electronic Identification (EID) technology to improve data collection, specifically regarding data on individual lambs, offers significant potential for each sector of the industry [producer, feeder, and packer] to identify opportunities for productivity improvement. In addition, each sector can more effectively work together to increase industry information exchange, and production efficiency as well as enhance price discovery mechanisms (Value Based Marketing/VBM) that rewards value based on individual lamb attributes.

STATUS:

Complete

FINAL REPORT:

EID Project Report - HF4 – David Fisher

The project was funded by American Sheep Industry's "Lets Grow" program. Texas A&M AgriLife Extension was contracted by the grant to complete the data analysis and provide reports to the participants in the project.

Electronic identification eartags (EID) were placed in all lambs and ewes at marking, which occurred in January of 2016. The lambs were born to single sire matings. A PedigreeScan unit was purchased for a different project. This unit was intended to match ewes and lambs via EID technology. Due to high rainfall, the ewes and lambs did not go to a water source. The technology to match pasture-born lambs to their dam is applicable and very relevant to this project. However, it was not accomplished in this effort. Lambs were weaned in May and weighed using the ShearWell weighing system. The weigh system was easy to use, and 300 lambs were individually weighed in a couple hours. Then lambs were sent to Denis Feedlot. The lambs were weighed in June and half the lambs were sent to harvest. The lambs sent to harvest had carcass data collected; however, there was a technician error collecting the data, which did not allow the data to be traced back to the correct lamb. The remaining lambs were weighed in July and sent to harvest. This shipment of lambs did not have carcass data collected on them.

		Productio	n	Economics			
<u>Rams</u>	<u>Wean</u> (lb)	<u>Feedlot</u> (lb)	Days on Feed	<u>Sales:</u> \$/ewe	<u>Cost:</u> \$/ewe	<u>Return:</u> \$/ewe	
Terminal	115	139	54	\$208	\$112	\$96	
MerinoX	104	123	59	\$185	\$107	\$78	
Rambouillet - S	96	127	66	\$190	\$117	\$73	
Rambouillet - F	106	132	67	\$197	\$113	\$84	

Table 1: Sire Performance

The results in Table 1 demonstrate that there substantial differences in profit from lambs sired by different rams. Terminally sired lambs increase net profit by \$17.66 per lamb. There were two different Rambouillet sire lines. Sire line F lambs generated an \$11 increase in profit from lamb sales compared to sire line S. Merino sired lambs were intermediate between the two Rambouillet sire lines.

All lambs were yield graded 2 or 3. Sixty percent of lambs were yield grade 2 and 40 percent of lambs were yield grade 3. All lambs received premiums, \$0.08 for yield grade 2 and \$0.03 for yield grade 3.

We calculated a yield grade on all lambs based on a back-fat measurement [Yield Grade = BF (in) * 10 + 0.4]. Then we looked into how many lambs had a similar USDA and calculated yield grade. The figure above shows that 27% of lambs were the same, 29% of lambs were graded 1 yield lower than a calculated yield grade; 18% of lambs were graded 2 yield grades lower, and 10% of lambs were graded 3 or more grades lower by a USDA grader than the calculated grade. This data indicates that significant inaccuracy exists in either USDA grading or carcass back-fat sampling or the correlation between USDA grading and formula grading is low.

Hot Carcass. lb								
	55 and down	55-65	65-75	75-85	85 and up			
Lambs	2	34	47	18	5			
Base Price, \$/lb	\$2.95	\$2.95	\$2.88	\$2.79	\$2.79			
Discount, \$/lb	\$0.08	\$0.07	\$0.06	\$0.04	\$0.04			
\$/Lamb	\$156	\$185	\$205	\$222	\$245			
Yield Grade	2.00	2.21	2.38	2.76	2.80			
Loin Eye Area	2.05	2.49	2.47	2.67	2.38			

Back Fat 0.10 0.30 0.33 0.38 0.34

In the table 2, the number of lambs within each weight group are presented along with price received, discounts, gross receipt, yield grade, loin-eye area, and back fat. The majority of lambs (64%) were 65 lb or greater hot carcass weight category. Even with discounts, the heaviest hot carcass weight lambs received the greatest gross return per lamb. Yield grade increased slightly between each hot carcass weight category; however, the heaviest weight category averaged yield grade of 2.8, which indicates that they were not overly fat. Given current cost of feedlot gains (~\$0.85) it would have been more profitable to feed a large portion of the lambs to heavier weights.

Summary

Electronic eartags provide a conduit to return information to the farmer/rancher, so that they can improve delivery of the most profitable lambs. For instance, this data allows for refinement of what type of sires to use or set a weight range for harvest dates of lambs based on sex, among other things.

EID Project Report - M Diamond

The project was funded by American Sheep Industry's "Lets Grow" program. Texas A&M AgriLife Extension was contracted by the grant to complete the data analysis and provide reports to the participants in the project. Within this letter is flock performance data that was collected via EID tags.

Because the operation is a range lambing flock, lambs are tagged at marking. Sex and breed could be recorded, and this data could be analyzed for weaning weights, feedlot performance, and carcass data. This data was lost due to a computer hard drive crash.

This report is focused primarily on the carcass data and how management could be altered to attain the most return for lambs harvested. In particular, lambs were divided into USDA yield grade and carcass weight categories because this information determines pay weight and carcass value in the Mountain States Lamb Cooperative.

Lambs (n = 1130) were harvested on three different weeks in February of 2017 at the same abattoir. Table 1 contains the lamb carcass data sorted into USDA yield grades. The majority of lambs were yield grade 3. As expected, carcass weight increased for each yield grade category. Loin eye or ribeye area at the 12^{th} rib was fairly consistent across USDA yield grades. As expected, back fat thickness measured at the 12^{th} rib increased as USDA yield grade increased. Prices were determined by base price for carcass weight, plus premiums and discounts for yield and quality grade. Yield grade 1 and 5 lambs received \$11 and \$30 less than yield grade 3 lambs. Yield grade 2 and 4 lambs received \$4 and \$5 than yield grade 3 lambs. The vast majority (86%) of lambs yield graded 2 or 3, which was ideal for returns per lamb.

	Yield Grade							
	1	2	3	4	5			
No. of Lambs	4	281	690	144	11			
% of Lambs	0%	25%	61%	13%	1%			
Hot Carcass, lb	80.1	80.6	84.7	88.0	94.5			
Loin Eye Area, (in ²)	2.89	2.90	2.87	2.86	2.89			
12 th Rib fat, inches	0.15	0.24	0.30	0.36	0.45			
Premium, \$	0.00	0.08	0.03	-0.10	-0.50			
\$ Gross/Lamb	\$204.75	\$211.41	\$215.79	\$210.60	\$185.99			

Table 1. Carcass data of lambs sorted into USDA yield grade categories.

We calculated a yield grade on all lambs based on a back fact measurement [Yield Grade = BF (in) * 10 + 0.4]. Then we looked into how many lambs had a similar USDA and calculated yield grade. Figure 1 shows that only 38 percent of harvested lambs that were graded the same. Of those that had different calculated and USDA yield grades, almost 70% of the lambs had a higher calculated yield grade than USDA yield grade. This data is favorable for the grower because they are getting more yield grade 2 and 3 premiums than if yield grades were taken from a back fat measurement.

Figure 1: USDA yield grades vs calculated yields based on backfat measurement

Figure 2: Calculated yield grades that were higher or lower than USDA yield grades of those lambs that had different USDA and calculated yield grades.

In Table 2, the lambs were sorted into carcass weight groups. The majority of lambs (83%) were 65 pounds or greater hot carcass weight category. As expected, yield grade increased slightly between each hot carcass weight category. However, the heaviest weight category averaged USDA yield grade of 3.0, which indicates that they were not overly fat, nor did they receive significant yield grade discounts. The heaviest hot carcass weight lambs received the greatest gross return per lamb, even with \$0.23 per pound discounts.

	Weight Groups								
	55 & down	55 to 64	65 to 74	75 to 84	85 & up				
No. of Lambs	5	30	161	426	512				
% of Lambs	0.4	2.7	14.2	37.6	45.2				
USDA YG	2.2	2.38	2.69	2.82	3.03				
LMA, (in^2)	2.16	2.47	2.70	2.82	3.01				
FD, in	0.28	0.22	0.26	0.29	0.31				
Premium, \$/lb	0.00	0.00	-0.04	-0.09	-0.23				
\$ Gross/Lamb	139.86	169.04	191.15	209.26	226.96				

Table 2: Carcass data of lambs sorted into weight categories.

To capture the most value from each lamb, it is necessary to determine cost of gain of lambs in each yield grade category. Current industry feedlot cost of gain is around \$0.75 per lb of live

weight gain. This would approximately double to \$1.50 per lb of carcass weight gain. Therefore, an extra 10 lbs of carcass would roughly increase feedlot cost by \$15.00. Given this assumption, as lambs were fed to heavier weights more profits were generated per lamb at each weight category (\$14, \$7, \$3, & \$3, respectively). However, the net profit per lamb decreased as lamb weight increased.

Summary

Without individually identified lambs, some of this data set would not be possible. With more information on the lambs, such as sire, dam, date of birth, electronic tags could provide even more information pertaining to flock profitability. For instance, this data allows for refinement of what type of sires to use or set a weight range for harvest dates of lambs based on sex and breed. This data also provided information regarding the calculated yield grades vs USDA yield grades.

In this data set, the ranch is sending the majority of the lambs at the correct weight and yield grade to attain the most from the lambs. Even though, discounts were applied to lamb carcass 65 lbs and heavier, gross return were higher for larger lambs. When including cost of gain, net profits may not be worth taking lambs beyond 75 lb carcass weight.

Interestingly, there was minimal difference between yield grades of lambs among different weight classes. Another interesting finding was the difference in yield grades between measured grades and USDA grades. This is something that should be investigated as it could have significant impacts on rancher profitability.

Multi-state proposal to address proper training of sheep shearing professionals in the U.S.

AWARDED TO:

South Dakota Sheep Growers Association and Professional Sheep Shearer and Instructor

SCOPE:

North Dakota, Wyoming, Colorado, Texas and South Dakota

SUMMARY:

In the US, shortage of sheep shearing professionals is becoming a consideration for those wanting to expand wool and sheep production. With sheep numbers slowly declining in the US, there is significantly less interest in becoming a trained shearer. Finding foreign labor during the Australian off-season has also become problematic because of delays in obtaining work visas and because there is a worldwide shortage of shearers. There is a critical need for skilled wool harvesting professionals and there are very limited opportunities for traditional on-the-job training to meet this need. Currently, there are a limited number of sheep shearing schools where students can receive skills in proper sheep shearing techniques and training in the Western United States. South Dakota State University and North Dakota State University have consistently sponsored annual shearing schools taught by shearing school instructors, extension specialists and seasoned shearing professionals. These schools have been very popular with enrollment caps reached with very little advertisement. An additional benefit of wool harvesting schools is the education and outreach provided by the curriculum from ASI's American Wool Council on proper shearing technique, methodology, and animal welfare. Providing producers with skilled professionals enhances the wool clip value in domestic and international marketing. Funding will allow these wool harvesting schools to attract more and better motivated students interesting in pursuing a sheep shearing career that will meet the needs of US sheep and wool producers. In the five-state area (SD, ND, CO, WY, and TX) the shortage of sheep shearers is critical and are one of the difficulties for producers who wish to participate in the production of sheep and wool as a profit center in their operation. Ultimately, this proposal will strengthen and improve long-term sustainability of the sheep and wool industry's infrastructure.

STATUS:

Complete

PROGRESS REPORT:

- Shearing equipment and tools purchased
- 5 shearing stands constructed
- Trailer for transport and storage purchased
- Schools held:
 - North Dakota
 - South Dakota
 - o Texas

Shearing schools in Colorado and Wyoming were cancelled due to weather and lack of sheep to shear. A school will be added in Wisconsin in 2016.



Photo of the shearing stands that were built.





Photos from the North Dakota Shearing School







A photo of the shearing tarps that were supplied to shearing crews by the American Sheep Industry Association.





Attendees of the South Dakota Shearing School

Attendees of the Texas Shearing School



Attendees of the North Dakota Shearing School



Let's Grow the Northwest

AWARDED TO:

Oregon Sheep Growers Association

SCOPE:

Oregon and Washington

SUMMARY:

Our project will consist of two major educational outreach efforts and the development of a third to educate sheep producers in Washington and Oregon. The Lamb 300 is a three-day, intensive workshop with a major focus on lamb as a consumer product along with aspects of flock productivity. Participants in LAMB 300 receive approximately 30-hours of hands-on instruction addressing the production, processing, distribution and merchandizing practices that affect the consistency, quality, palatability, and wholesomeness of lamb products. This hands-on program enhances the understanding of attributes affecting consumer acceptability and ultimately consumer demand for lamb products. The Sheep Symposiums are one-day programs that will be held in conjunction with the state meetings of the Oregon and Washington Sheep Associations. The Washington event will be located in eastern Washington in order to attract producers from eastern Washington and Oregon. The Oregon symposium will be held in western Oregon to similarly attract west side producers. The same topics and speakers will occur at both locations. The focus will be reproductive efficiency in the Pacific Northwest with a heavy emphasis on NSIP and other strategies for genetic improvement. A unique feature will be a round table discussion at each location to determine what can be done in the Pacific Northwest to improve reproductive efficiency and what can be done to promote the use of NSIP and other genetic selection tools. This will set the stage for a third outreach function for targeted workshops at ram and ewe sales, and other events in order to increase the knowledge of selection tools among Northwest sheep producers.

STATUS:

Complete

PROGRESS REPORT:

- Lamb 300 Workshop held in July 2015
 - 70 percent responded that the workshop contributed significantly to their knowledge
 - \circ 91 percent responded that they plan to use the information to capture higher lamb prices
 - 25 percent indicated they felt the workshop will contribute \$1,000-\$5,000 additional income in 2016.
- The Pacific Northwest Let's Grow Lamb and Wool Symposium -- Oct. 31, 2015 -- Walla Walla, Wash.
- The Pacific Norwest Let's Grow Lamb and Wool Symposium -- Dec. 5, 2015 -- Central Oregon at the Sunriver Resort

LAMB 300 Follow UP Survey Results:

- 70 percent responded that the workshop contributed significantly to their knowledge
- 91 percent responded that they plan to use the information to capture higher lamb prices.
- 25 percent indicated they felt the workshop will contribute \$1000-5000 additional income in 2016

Pacific Northwest Let's Grow Lamb and Wool Symposium - Saturday October 31, 2015

8:00 am—Registration

8:30 am—Welcome and Program Structure - Jan Busboom

9:00 am --- Overview of What's and Why's of Let's Grow Alan Culham

9:30 am—Strategies to Improve Reproductive Efficiency in the Pacific Northwest Range and Farm Flocks. Martin Maquivar, Jan Busboom, Sarah Smith and Paul Kuber

10:15 pm—Artificial Insemination and Embryo Transfer: Challenges and Opportunities 10:45 am—Break

11:00 am—Applying Existing Genetic Selection Tools to Improve Lamb Reproduction, Growth and Carcass Value With Emphasis on NSIP - Alan Culham

12:00 pm—Lunch and Presentation on Innovative Lamb Products and Preparation Methods - Paul Kuber

1:00 pm—Sheep Nutrition through the Production Cycle to Increase Pounds of High Quality Delicious Lamb and Profitability - Sarah Smith

2:00 pm—Description of Round Table Session Logistics (Leaders, Recorders, Etc.) and Assignment of Discussion Questions for Round Table Groups

Topics will include:

What can be done in the Pacific Northwest to Improve Reproductive Efficiency?

What Can Be Done in the Pacific Northwest to Promote the Use of NSIP and Other Genetic Selection Tools?

2:15 pm—Break

2:45 pm—Round Table Sessions

3:30 pm—Reports of Round Tables

4:15 pm—Identifying Key Strategies for Action Plans and Where We Go From Here



South Dakota Post Weaning Lamb Performance Program

AWARDED TO:

South Dakota State University Extension

SCOPE:

South Dakota

SUMMARY:

This project, "SD Post Weaning Lamb Performance Program" will target 3 primary areas: 1. Lamb growth performance and efficiency 2. Genetic merit and 3. Producer education. The sheep producers selected to participate in this unique opportunity will provide leadership and educational programming events in their local communities, regions and state to fellow producers operating under similar production management systems. The producer-led programs will present the performance results of lambs data submitted, an economic assessment, and examine the benefits of genetic selection tools, such as EBV's, to enhance flock profitability. Ideally the participants in this program will gain the knowledge and skills to improve individual flock productivity and further benefit the entire sheep industry with production of higher quality lamb meat products.

STATUS:

Complete

PROGRESS REPORT:

March 2017 - Final Report -- Click Here

January 2017 Report:

View the presentation provided during the 2017 ASI Convention at: <u>S.D. Post Weaning Lamb</u> <u>Performance Program</u>

Program Objectives:

- Demonstrate common practices in lamb feeding
- Collect data on lamb feedlot performance and carcass merit of finished lambs
- Provide producers with exposure to other sectors of the lamb industry
- Identify factors that influence lamb quality

Program Outcomes:

- Adopt management plans to reduce stress
- Create a genetic selection plan
- Understand the natural endpoint of finished weight
- Understand lamb quality characteristics that will increase consumer demand.

Program Timeline -- Completed:

- Group 1 lambs 100 head Delivered 9/15/2015
- Utilizing data to select breeding stock 9/17/2015
- Group 2 lambs 200 head Delivered 9/29/2015
- Feedlot progress reports Monthly
- Group 1 Final Weight 12/9/2015 Slaughtered 12/11/2015
- Group 2 Final Weight 1/3/2016 Slaughtered 1/5/2016
- Calculate feedlot performance
- April 7, 2016 Results distribution meetings in Newell and Buffalo

Program Timeline -- To Do:

- Analyze and interpret Carcass Data
- Producer tour of slaughter plants and nearby feedlots
- Producers participate in Lamb Fabrication Activity
- Producer host educational programs in local communities
- Use performance data and/or NSIP-Estimated Breeding Values (EBSs) to select replacement breeding stock to maintain or improve lamb performance and carcass merit
- Begin Phase 2

April 7, 2016, Results Distribution Meetings in Newell and Buffalo

Presenters: Brad Anderson, Procurement Director, Mountain States Lamb Cooperative, and Dave Ollila, Extension Sheep Field Specialist, South Dakota State University

There was a great turnout at both locations with 25+ people in attendance at each event. About 60 percent of the audience at each location were, what we consider, younger producers. A very nice surprise and added bonus to the presentations was attendance by JW Nuckolls, one of the original organizers of Mountain States Lamb Cooperative. His optimism for the future of the sheep industry had a huge impact on the attendees. A lot of credibility comes from an 85-year-old producer who has seen it all and has a reputation for leadership in lamb and wool production. A big thank you goes out to Brad Anderson of Mountain States Lamb Cooperative for presenting at each location. Attendees are interested in developing localized producer groups to develop and establish more profitable and long-term methods of lamb marketing. Stay tuned as we organize these groups.

Brad Anderson presents at the Newell meeting.



Brad Anderson presents at the Buffalo meeting.



Attendees at the Buffalo meeting.



Group 1 lambs at 83 days of feeding.



Group 1 lambs at 83 days of feeding.



Group 1 lambs at 83 days of feeding.



Jim Hanssen -- Cooperating Feeder



Group 1 lambs at 83 days of feeding.



Group 1 lambs at 83 days of feeding.



Group 1 lambs at 29 days of feeding.



Group 1 lambs at 29 days of feeding.



Leading Edge Sheep Production Seminar

AWARDED TO:

Utah Wool Growers Association

SCOPE:

Utah, Idaho, Wyoming, and Nevada

SUMMARY:

We are seeking funding to host a 2-day seminar targeted to increased sheep production in the western, commercial sheep operation. The seminar is on implementing new practices into the traditional western range production model where ewes are lambed on the open range, summered on the ewes for 150 days and then sold to feedlots, ewe lambs are left with the ewes and lambed at 24 months of age and rams are purchased without data. While the seminar will be open to all producers -- specific, selected young progressive producers will be invited to attend. Attendance will be limited to 15 participants in order to maximize instructor/student interaction. The funding will offset the costs of the seminar so that so that there are limited costs to the producers who will attend. Several young producers have expressed strong interest in being part of the seminar. More important than the number of participants in our view is the number of sheep under participant management - which will be 60,000+. Utilizing the topics listed above we are confident we can spread the lamb crop over a much greater percentage of the year, reduce predator losses to lambs through early weaning, increase producer profitability through vertical integration and improve lamb consistency through the use of data driven ram use. By utilizing the best presenters and industry experts we can create a paradigm shift in the western production model and achieve multiple Roadmap goals. Further given the large number of ewes affected we will begin the production shift in a large enough way to positively affect the industry.

STATUS:

Complete

PROGRESS REPORT:

Nineteen producers representing flocks from Utah and Wyoming met on Aug. 17-18, 2015. The producers in attendance represented more than 53,700 ewes.

A comment received after the meeting was, "I had four producers call to tell me what an excellent program this was. Comments included: This is one of the best sheep seminars I have ever attended, this helped me so much, why don't they do this in other states, and I am really excited about the sheep industry again." Tonia Fuller, Executive Secretary for the Utah Wool Growers Association

Presenters Lesa Eidman, Superior Farms and Dennis Stiffler, Ph.D., Mountain States Rosen



Presentations from this meeting are available here:

Tom Boyer - Utah Wool Producer Leading Edge Sheep Production

Lesa Eidman - Superior Farms Lamb Quality

Wes Patton - American Lamb Board and Road Map Committees <u>Update for Leading Edge Sheep Production Workshop</u> <u>The American Lamb Industry Roadmap Project - An Update Report</u>

Alan Culham - Let's Grow Specialist <u>Maximizing Pounds of Lamb per Ewe</u> <u>The Value of a Ram - Selection and Purchasing Rams</u>

Bill Shultz - NSIP Ram Produce Big, Fat and Beautiful

Dr. Richard Ehrhardt - Michigan State University Increasing Lamb Production Efficiency with Accelerated Production

Rusty Burgett - NSIP Specialist The Power of NSIP to Increase Your Profits

Dr. Sam Nielsen, DVM - Bear River Veterinary Clinic, Evanston, Wyo. <u>Utilizing Your Veterinarian and Developing Quality Health Programs</u> Kim Chapman - Utah State University Sheep Specialist <u>Is it Worth it to Shed Lamb?</u>

The goal was to invite 15 producers that would control 60,000 ewes. Two producers indicated they would come and then were unable to make it at the end – which together would have added an additional 18,000 ewes. They are both still interested in the program and have committed to attending future seminars and meetings. Presenter invitations included those listed above plus Mike Caskey who was unable to attend. The topics were well covered, and each session was well received. The ultimate goal of the seminar was to determine interest in developing a "Breeding Group" like the Pipestone group that can produce lambs more efficiently and effectively, feed them to proper weights and market them at their peak and reap optimal profits. Alan effectively taught me that the proper term is Optimal not Maximal which I agree with as given the current marketing schemes there may be years when the group would sell slightly under the peak price with most years being at or above the peak price and perhaps most important producers could have a base price at the outset of the production year versus the current situation where they often don't know the price until the lambs are loaded on the trucks.

The attendees were unanimous in their desire to continue the process with additional seminars and meetings. Therefore, it is my intention to submit another proposal to continue this process. If we [I assure you this is a team effort which includes at least the presenters, UWGA, Let's Grow, NSIP, ALB and the Roadmap Team] can succeed in getting this group in place it will provide a foundation for change within the industry which now only includes Pipestone and a few individual breeders who have had sufficient vision [perhaps better stated is sufficient frustration] to create their own integrated production units.

The evaluation phase of this seminar is still underway and will be for several years. The fact they are unanimous in their desire to continue is encouraging. The group consisted of primarily young producers who are open to significant change in their production systems or at least they will consider making such paradigm shifts. As promised in the Request for Funds we will continue to track the progress of the group and provide updates.

Photos of the tour show the landscape, a sheep camp and some of Tom Boyer's Rambouillets.







Growing Wyoming Lamb and Wool Production

AWARDED TO:

Wyoming Wool Growers Association

SCOPE:

Wyoming

SUMMARY:

The projects within the proposal address value-based pricing/marketing, consistency of product, demand creation, development of toolkits, development of materials for direct marketers, best practices, developing a public forum for discussion, implementing the use of Estimated Breeding Values, formation of Producer Profitability Groups and rapid communication of risk information to lamb and wool producers.

STATUS:

Multi-Year Grant -- Fully Completed

FINAL REPORT:

The Wyoming Wool Growers received \$14,500 in funding for educational projects to be held in each of three years, starting in 2015 and ending in 2017. The projects included a Small Flock and Fiber Symposium (SFFS) and a Young and Beginning Producer Forum (YBPF). The events were well received but for the most part not well attended, with the exception of the when we held the two events in conjunction with our annual summer meeting. In looking back, if we had done this earlier, it is probable this project would have been more fruitful from its inception.

The educational events were successful, despite limited participation, particularly at the outset. Our participation numbers grew quite a lot from year one to year three, which is an indication of success. Inconsistency and hampered coordination between the WWGA and our other project coordinators limited our success. Some of these problems were solved by the end of the project period, which helped improve the project. We believe the programs funded by the Let's Grow Grant benefited our industry but would have been more successful if the University of Wyoming's sheep specialist position had been filled when the project was first initiated (the Sheep Specialist position in WY had been vacant for many years but was filled in 2017). Having a trained individual to work with on planning programs and identifying topics and speakers would have increased the value of these events significantly. For this reason, we plan to continue the projects beyond the grant funded years.

Small Flock and Fiber Symposiums – Years 1, 2, and 3.

In our first year we had a total of 23 participants including the speakers who attended other sessions. In our second year, this number dropped to 18 but was still well received. Our last session was in 2017 and was the best attended (35 participants). All three received the good reviews. We plan to continue these sessions as part of our annual summer meeting.

Our seminars were funded from the Let's Grow Grant. In addition, we received funding from University of Wyoming Extension Small Acreage Team, Wyoming Wool Growers Association, Mountain Meadow Wool Mill and Shepherd Magazine. A minimal fee of \$25 was charged to participants other than speakers. In the first two years, the SFFS was held separately from the Young and Beginning Producers Forum in the afternoon, with lunch in between. Many of the attendees participated in both sessions and was a factor in the increased participation.

Our advertising was better the first year, but despite the limited advertising our numbers did increase. This is attributable to having the meeting during the summer and in conjunction with the Wyoming Wool Growers Annual Summer meeting.

On average, a minimum 14 topics were generally covered during the sessions, from wool quality and fleece preparation to sheep nutrition and management. Hands on demonstrations of use of wool products were an important aspect of the programs. The symposiums were set up to provide education on the process from animal to greasy wool to yarn and then to final product, whether that would be socks or yarn for knitting. The first speakers would build upon each other so that the hands-on demonstration, whether it was a session for spinners, or on wool coloring or on felting, would give the participants a better understanding of wool products they were using. In general, our topics received 100% favorable ratings by participants, for those that did not, the lowest rating was 86%.

Young and Beginning Producers Forums

This project developed quite differently than the SFFS. The first year, there was a very small participation and could not be deemed a particular success. The second and third year we held the forum during the WWGA annual summer meeting and saw much better participation. Because of the WWGA meeting, there were several experienced producers who attend the forums, which added a great deal to the discussion and the quality of the meeting. Our speakers ranged from long-time wool producers to lamb processors and "part-time" producers who had been in the business 8 or more years but also hold "day jobs". Our first year had 10 people, including 3 speakers. By the third year, we had 38 people including 3 speakers. Sessions included topics such as synchronized breeding, embryo transfer, wool quality and lamb and meat quality. In general, our evaluation rates for these sessions were very high, generally between 90% and 100% approval. Like the SFFS, will continue to host these sessions because of their growing success.

Conclusion

The WWGA turned back the majority of our funding because of difficulty in obtaining appropriate and timely receipts for the costs of the sessions (we only used about 10% of the funds granted). Part of this was due to having separate entities involved in obtaining services and part of it was because the sessions were held in conjunction with the WWGA's summer meeting. For example, the WWGA was charged a bulk fee for the use of meeting rooms during our convention, and we were not able to get a breakdown on the actual room expenses in order to separate out costs for the Let's Grow Grant sessions. Therefore, the WWGA absorbed the costs itself.

We learned a lot about administering a grant in the course of this project. We believe that this particular project offered some benefit to the goal of the Let's Grow Program, but certainly not as much as it could have. A small number of participants in our programs become significantly more involved in the industry and have indicated that the things they learned through our project has been of benefit to them. As an Association, our role as a collaborator with the grant did not work as well as it could have and we did not particularly enjoy the experience, which makes us more cautious about participating in future grant projects. Nonetheless, we believe in the goals of the Let's Grow program and we continue to look at additional opportunities in which grant funds could be used to further its goals in a more productive manner.