

Project Information:

Project Title: **North Carolina Lead Shepherd Program**

Recipient Organization Name: **North Carolina State University**

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Project Report

Annual Report Type:

Reporting Period

Start Date: **1/1/22**

End Date: **12/1/22**

Performance Narrative:

**Activities Performed**

There is a growing interest in confinement small ruminant production in North Carolina as availability of retired poultry houses has increased. To allow North Carolina industry members to experience intensive, confinement sheep production systems a tour was organized for sheep producers, livestock extension agents, and North Carolina Department of Agriculture (NCDA) staff. An application was developed ([go.ncsu.edu/leadshepherd](http://go.ncsu.edu/leadshepherd)) and distributed starting on March 18, 2022. The application period closed on May 1, 2022. Applications were reviewed and six participants were selected. Selections were announced on May 15, 2022. These participants consisted of one NCDA livestock marketing specialist, one livestock extension agent, and four sheep producers along with a county extension director (Dr. Emily Cope) and myself, state small ruminant specialist. Dr. Kelly Froehlich, SDSU extension specialist, also joined the tours (she paid her own way).

The tour was scheduled for July 27- 31. The group departed from the Raleigh-Durham airport and arrived at the Minneapolis airport, as it was less expensive than flying to a closer, but smaller city. Seven tour stops were scheduled. These included Blake Meshke in Lake Crystal, MN, Riley Braatan in Rosholt, SD, Chad Hasbargen in Wheaton, MN, Dan Persons in Kensington, MN, Justin Fruechte in Verdi, MN, Wes Moser in Lester, IA, and Kyle Hurley in Curlew, IA. Originally, we had a tour scheduled

at Kevin Goekin's farm but this had to be canceled due to family obligations he had. In addition to the farm tours, participants attended the NSIP Center of the Nation Educational Program and Sale. During the tours, we spent two nights in Brookings, SD and two nights in Spencer, IA. A copy of the agenda can be found by clicking [HERE](#).

Since returning from the tour, we have been organizing producer networking groups to facilitate continued discussion and industry collaboration. We developed a sign-up form for individuals across North Carolina to indicate their interest in being a part of a group ([go.ncsu.edu/smallruminantnetworking](http://go.ncsu.edu/smallruminantnetworking)). Currently, 52 people have asked to be a part of a group. Based on the number of interested producers, their level of experience, and the type of production system they utilize, four networking groups were formed. These include a confinement and semi-confinement housing system group, solar grazing group, and two forage-based production system groups (one for western North Carolina and one for eastern North Carolina). Leaders have been assigned to each group. These leaders include all of the participants in the Lead Shepherd Program along with several North Carolina livestock extension agents. Leaders for these groups have been confirmed and groups will be tasked with meeting in the first quarter of 2023.

A graduate student has been and will continue to work with these groups to ensure they have the resources necessary to be successful. Additionally, this student, along with myself and Dr. Cope, will be available to meet with groups, answer questions, and address challenges. The goal for these groups is to be a place of problem solving, strategizing to improve the productivity and sustainability of the industry, and provide comradery and encouragement for producers. These groups will continue to function beyond the conclusion of this funding.

### **Accomplishments**

This program provided the opportunity for these participants to see a new way of raising sheep that has not been commonplace in the Southeast. Opportunities exist to implement some of the management practices and technology observed with a goal of improving the productivity, profitability, and sustainability of sheep production in North Carolina.

The tour was a tremendous success and participants were able to meet other sheep producers, see new operations and management practices, meet industry leaders, and get to know one another better. The comradery developed during the trip was encouraging to see. Participants made comments throughout the trip regarding new things they learned and plans for their operations once they returned from the trip.

Following the trip, a survey was sent to all participants (click [HERE](#)). Based on results from this survey, all indicated they increased their understanding of confinement operations, were likely to incorporate new production practices, would engage with

other producers from the tour, and be involved with statewide producer networking groups. Additionally, they indicated that what they learned and observed would provide economic value to their operation. All indicated the trip was very worthwhile. They also found the NSIP Educational Program on Friday before the sale to be educational and beneficial. A sampling of their responses for each short answer is provided below.

- *“I really enjoyed seeing how each farm maximized their efficiency. Specifically, I really liked the handmade items like their water setups, gates, feed troughs, and bunk feeders, etc. Several of the farms used pvc pipes with a float valve and I thought that was pretty clever.”*
- *“My most memorable experience was getting to talk to and connect with producers over dinner.”*
- *“My memorable experience was getting to see how each farm we toured did things a little differently as far as management and sheep care. Each farm had a different system but it worked for their needs. The chance to talk to other producers and be able to network with them was also very valuable.”*
- *“I can implement new changes in my production system and if its something that works here in NC, I can share it with local producers for them to benefit in their flock as well.”*
- *“I think this experience could help improve the industry here by showing producers more efficient ways to produce lamb in a more controlled environment.”*
- *“I believe this was a great learning opportunity for everyone and I am more than willing to help share what I learned with other producers in NC. Management and feeding are a couple things that could be brought back to North Carolina for local producers to improve on.”*
- *“I’m very satisfied with the overall experience. I think it was well thought out and really was able to give us insights that we otherwise would not have. I don’t feel that it needed any improvements.”*
- *“The tour was awesome and very educational. The only thing that I would want to add would be something like a processing plant for lambs.”*
- *“I think the largest current barrier is getting producers to think differently and try new things such as confinement housing. I also think a lack of feedstuffs for a confinement system could be an issue.”*
- *“Current and future barriers for the NC sheep industry are market prices of lambs and how much that price fluctuates, it would be great to have some type of co-op or contract with processors to be able to set and know what live lambs were going to sell for.”*

- *“\$\$ for feed and equipment if doing a full on TMR. Ventilation/temperature/moisture control on our chicken houses. I think once it is figured out, it wont be too bad.”*
- *“I anticipate having the challenge of bedding management with the North Carolina humidity. Out of season breeding could also be a challenge at certain times of the year.”*
- *“This trip was awesome! I learned so much and I am so thankful I had the opportunity to attend. It was not only a great way to get to see all the different operations but was a great opportunity to get to network and grow closer with local NC producers that are looking into confinement and already in the sheep industry.”*
- *“Overall this trip was a great experience and learned many things that i plan to implement on my farm. It was great to meet other North Carolina producers and be able to learn how each farm we visited managed a little differently. I am thankful for the opportunity to be able to attend this Midwest trip and look forward to staying in touch with the people I met and be able to help and teach other NC producers. Thank you again!”*

The following quote was also received from one of the participants.

*“This was forward thinking on your part to challenge existing thought patterns, generating good conversation on what may could work in our environment, as what may be some areas that may provide challenges to be aware of. In my opinion it was one the best extension programs I have had the opportunity to be involved with in some time in regards to the addressing potential to enhance production, profitability, and opportunity for producers.”*

A summary of the tour, lessons learned, and plans for the future were reported at the North Carolina Cooperative Extension Conference in October (click [HERE](#) to see presentation). There were approximately 20 livestock and 4-H extension agents in attendance.

This fall, networking group were established. As of November 30, 52 people have signed up to be a part of a networking group. Based on feedback from these individuals and production system of interest, four networking groups were established. Lead Shepherd tour participants were assigned as leaders for these groups. In addition, several extension livestock agents accepted the responsibility of serving as leaders as well. This level of interest has been encouraging and these groups will begin meeting in the first quarter of 2023.

Prior to the tour, we were able to purchase matching polo’s with a Lead Shepherd logo for all participants. These will be worn at extension meetings and other producer events to advertise the program and networking groups.

Overall, we have been able to organize and participate in a producer tour with eight individuals including myself and Dr. Cope. The response to the tour was very positive and participants learned new management practices and tools to implement in their operations. To ensure education continues and lessons learned are taught to others, networking groups have been formed. With over 50 people expressing interest in being a part of one of these groups, it is encouraging to see that other producers in North Carolina want to improve communication within the industry and the transfer of knowledge and ideas.

### Estimate the Total Percentage (%) of work Completed on the Project

#	Accomplishment/Activity	Relevance to Objective
	Participant selection and tour organization (100% complete)	This was necessary for objectives 1 and 2 to be accomplished.
	Producer group tour of Midwest confinement sheep operations and attendance at NSIP Center of the Nation Educational Program and Sale (100% complete)	Addresses objectives 1 and 2. These tours provided an opportunity for sheep industry members to experience high throughput, efficient sheep production systems and gain training in management skills and tools that can be applied to North Carolina production systems to advance production efficiency and enhance supply in market channels.
	Establish producer networking groups (90% complete)	This addresses objective 3. These networking groups will facilitate improved information exchange, encourage dissemination of ideas, address current challenges, improve industry productivity, and strengthen the supply chain. These groups have been formed and are expected to meet for the first time in the first quarter of 2023.

### Challenges and Developments

#	Challenge or Development	Corrective Action or Project Change
	Cost of travel and supplies increased between original budgeting and the time of the trip due to inflation costs. As a result, airfare, rental vehicles, and shirts were greater than expected. Further, 15-passenger vans were not available so two cars had to be rented instead.	We decided to fly to Minneapolis instead of a smaller city closer to the tour stops to save money on airfare. Hotel costs and gas were less than expected. We were not able to use as much for graduate student travel to assist networking groups and these costs will be charged to a different account. Additionally, funds from another account were transferred to balance the budget for this program.

## Outcome and Indicator Results to Date

#	Outcome/Indicator	Quantifiable Results
	Number of individuals who applied to be a part of the Lead Shepherd Tour indicates overall interest and enthusiasm by industry members.	A total of 12 individuals applied to be a part of the Lead Shepherd Program. Of these individuals, 6 were selected to be participants.
	A participant survey was developed and shared with all participants after returning from the tour. The feedback was summarized to evaluate learning and perceptions of the experience.	The survey results can be found in the "Accomplishments" section above along with comments from participants.
	Implementation of new management practices by Lead Shepherd Tour participants and members of Lead Shepherd mentoring groups demonstrates a change in behavior and adoption of new management practices to better the industry.	One of the tour participants purchased a ram while at the NSIP Center of the Nation Sale. He did not go on the tour with the intention of buying a ram but after learning about NSIP and the benefits of NSIP rams, he decided to buy a ram in the sale while we were there. This ram has serviced his flock this fall. Another tour participant started a confinement operation this year and has adapted his feeding system, health, and data recording management systems based on what he learned on the tours.
	Development of producer networking groups and participation in sign-up for networking groups demonstrates industry interest and producer willingness to be a part of the program even if they did not attend the tour itself.	As of November 30, 52 people have indicated they would like to be a part of a Lead Shepherd Networking group. We were able to establish four networking groups with at least 3 leaders for each group.

## Upcoming Activities

#	Activities	Anticipated Completion
	Finalize establishment of producer networking groups and ensure groups begin meeting in the first quarter of 2023.	Groups will meet for the first time in the first quarter of 2023. Groups will continue to meet with the goal of becoming sustainable long-term.