

Project Information:

Project Title: Enhancing the Impact of Sire-Progeny Testing Dorper Sheep

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Project Report

Annual Report Type: Period 1 Progress Report

Reporting Period Start Date: 20-Dec-2023 End Date: 31-Dec-2024

Performance Narrative:

Activities Performed

Year 1 of the Dorper Sire Test is complete (August of 2024). Year 2 of the sire test is underway, with lambs being born in November of 2024. For brief review, lambs will be weaned from their dams in January of 2025 with performance data collected starting at weaning through August of 2025. Meanwhile, Year 3 of the sire test will commence in May of 2025 with breeding. This project is slated for 3 total years and will conclude in August of 2026.

In year 1, 7 rams were consigned to the test, and in year 2 (breeding occurred in May of 2025) 7 different rams were consigned. In total, 10 different flocks from across the U.S. have participated in the project which enhances the overall national impact of this effort. To date, records of growth, parasite resistance, and carcass merit have been collected and reported to producers. Year 2 lambs will be weaned in January of 2025 and data collection will commence shortly thereafter.



Figure - 1: A consigned sire (wearing orange GPS collar) in ab reeding group in a large pasture.



Figure- 2: Lambs produced in year 1 of the study at weaning. At weaning a DNA sample is collected from each lamb for parentage determination.



Figure-3: Carcass were evaluated for a variety of traits, including loineye area, backfat, dressing percent and 3-hr and 24-hr pH as shown.

Accomplishments

Estimate the Total Percentage (%) of work Completed on the Project: 40%


| # | Accomplishment/Activity | Relevance to Objective |
|---|---|---|
| | Enrollment of three participating flocks from the Dorper Sire Test in the National Sheep Improvement Program. | A primary Objective of this project is to increase the use of quantitative genetic technology and genetic connectedness amongst dorper flocks. So far this has occurred with three of the cooperator flocks but more are to come. |

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| | <p>Year 1 of the Dorper Sire Test is complete, with the year 1 male lambs being harvested in July of 2024. Carcass data was recorded at this time. Data on lamb growth, parasite resistance and carcass data was compiled and presented to the consignors and any interested parties through a virtual report.</p> | <p>A primary objective of this project is to conduct flavor and eating quality evaluation of the lambs on this study. This will predominantly occur in spring of 2025.</p> |
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Challenges and Developments

| # | Challenge or Development | Corrective Action or Project Change |
|---|--|--|
| | <p>One challenge has been convincing cooperating flocks to enroll into NSIP, despite the benefits of the program. I expect more will enroll after data from year 1 of the sire test is completed and shared.</p> | <p>Completing the first year of data collection will help promote the need for enrollment in NSIP as cooperating producers will have multiple performance records available on their rams.</p> |
| | <p>A major reason only 40% of the project has been completed is due to timing, as the performance data is collected on lambs over an 8-month span. This project is slated for three cycles. Funds from the NSIIC help support this data collection, particularly on carcass evaluation, which is the final step of performance recording. Lambs in this project were harvested in July of 2024, and will be harvested in July of 2025 and 2026. A large majority of the project activities are still upcoming.</p> | |
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Outcome and Indicator Results to Date

| # | Outcome/Indicator | Quantifiable Results |
|---|--|---|
| | Three flocks have enrolled into NSIP. | Connection between these flocks and Texas A&M's flock in NSIP has occurred. |
| | Completed data on year 1 of the sire test has been reported. | <p>Here is a QR code to a virtual report of the Year 1 of the Dorper Sire Test</p>  |
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Upcoming Activities

| # | Activities | Anticipated Completion |
|---|--|------------------------|
| | Lambs from year 2 will be weaned in January of 2025 with data on growth and parasites being collected through the spring and summer. | Spring 2025. |
| | Lamb flavor analysis will be upcoming in the spring of 2025. | Spring 2025 |