The Mickel Project

A Leading Edge
Genetic Selection
Demonstration Project and Study

Project Objectives

- Utilize genetic testing technology to identify the sire of each lamb using DNA testing.
- Accurately and efficiently follow the growth and quality of project lambs from birth through harvest by utilizing electronic identification (EID).
- Demonstrate the value of using sires with performance-based EBVs in an industry setting.

Ram Selection

- Three Groups of Rams – Growth, Muscle & Industry
- 42 Suffolk Ram Lambs
  - DNA collected prior to breeding

Group	Average EBV	EBV Range
Growth - PWWT	19.1 lbs.	17.6 – 25.4 lbs.
Muscle - PEMD	2.4 mm	1.9 – 3.6 mm
Industry	Visual Appraisal	

Breeding

- 1,100 western white-face ewes – Mickel Brothers Sheep Co. – Spring City, Utah
- Ewes were flushed for 14 days on lush alfalfa aftermath
- Exposed to project rams for 17 days
- Rambouillet and Columbia clean-up rams were used after project rams were removed.

Lambing

- Lambing from April 3 to April 22
- 1,491 lambs born to 879 ewes (1.69 lambs/ewe)
- Lambs were tagged with an EID at birth
- DNA was collected at docking using AllFlex Tissue Sampling Units
- 1,457 lambs (92%) were assigned to a sire

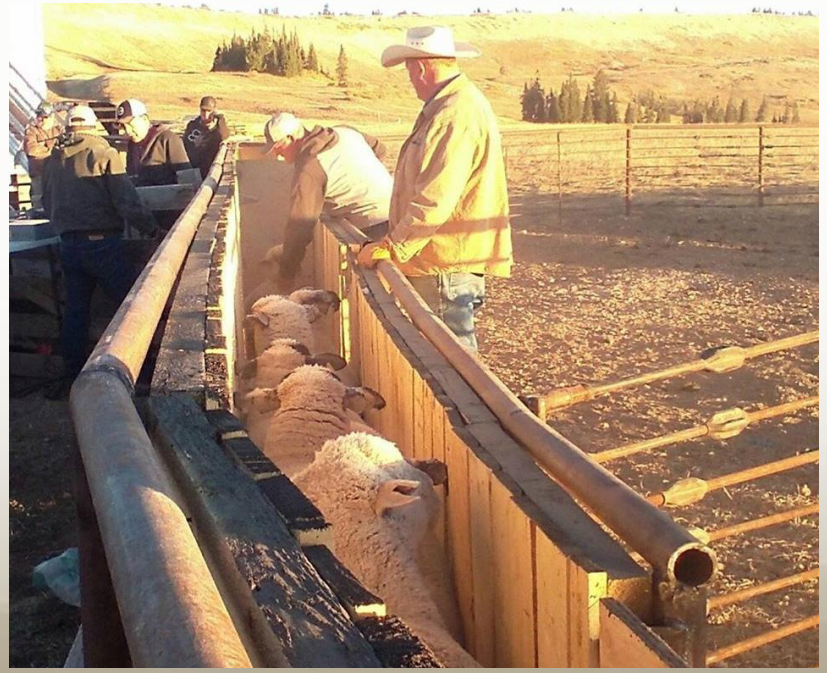
Weaning

- ≈ 20% lamb mortality from docking to weaning
- 1,104 lambs were weaned (1.26 lambs/ewe)
- Individual weights collected on lambs using a Shearwell Weigh Crate - 4 hours to weigh lambs (15 seconds/lamb)
- Growth lambs weighed 4.5 pounds more than the Muscle lambs ($6.30/lamb)

Trait	Industry	Muscle	Growth	S.E.
Age Adj. WWT (Lbs.)	106.0	104.1	108.6	1.3
Average Daily Gain-Wean	0.5727	0.5612	0.5892	0.0079

Feeding

Trait	Industry	Muscle	Growth	S.E.
Finish Weight (Lbs.)	142.0	143.9	144.7	1.4
Feedlot Total Gain (Lbs.)	36.97	37.93	38.89	1.28
Feedlot Average Daily Gain (Lbs.)	0.2885	0.3004	0.3041	.0117
Feedlot Days on Feed	125.3	134.5	118.4	3.6



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