

# USING REAL-TIME GENERATED RATE-OF-GAIN TO DETERMINE ANTHELMINTIC NEED IN PASTURED BLUE FACED LEICESTER MARYLAND LAMBS.

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# Purpose of the Study

1. Identify a rapid, easy method to identify lambs that needed drenching for worms.
2. See if less frequently treated co-located lambs would carry fewer resistant worms.
  - *Typically our weaned lambs are one management group.*



# Study Design

## Drench Determination

- Weekly ROG
  - .3 lbs/day
- Bi-weekly FAMACHA Scores
  - 4 or 5 score

- 
- Time Comparison

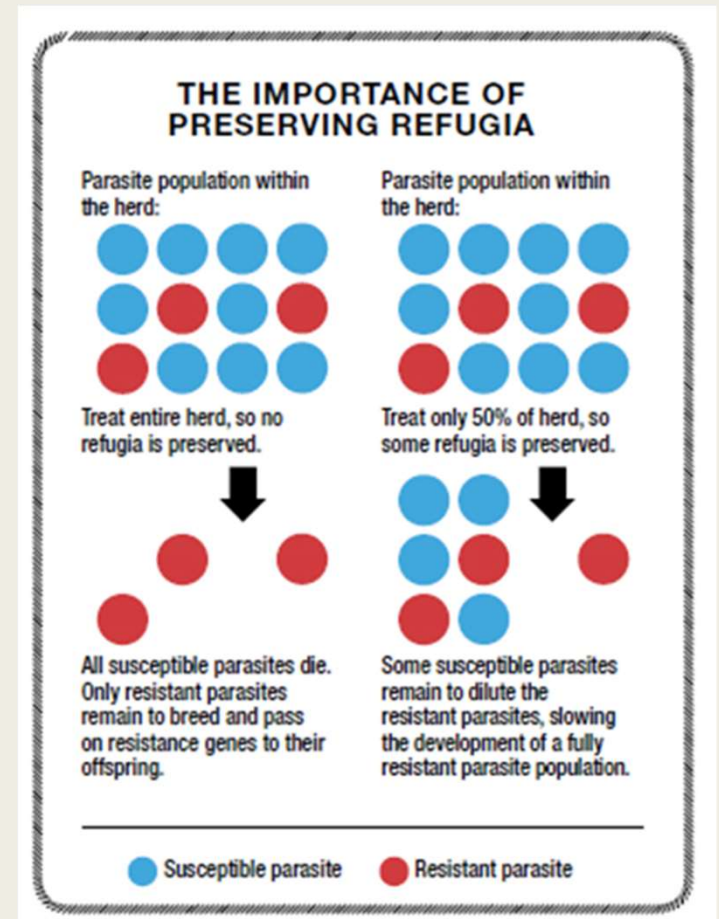
## Fecal Sample Collection

- Most frequently drenched
- Least frequently drenched
- Samples were combined
- DrenchRite Analysis



# About Anthelmintics

- Parasites are a major problem in lambs
- There are a limited number of anthelmintic classes
- Parasites are becoming resistant to anthelmintics
- Drenching only animals that need treatment maintains refugia
- Goal: Use Rate of Gain to determine which lambs need to be drenched



# Technology for Real-Time Generated Rate-Of-Gain

- Electronic Identification Tags (EID)
- Digital Scales
- EID reader
- Farm Management Software



# Tagging Demonstration



# Scale Demonstration

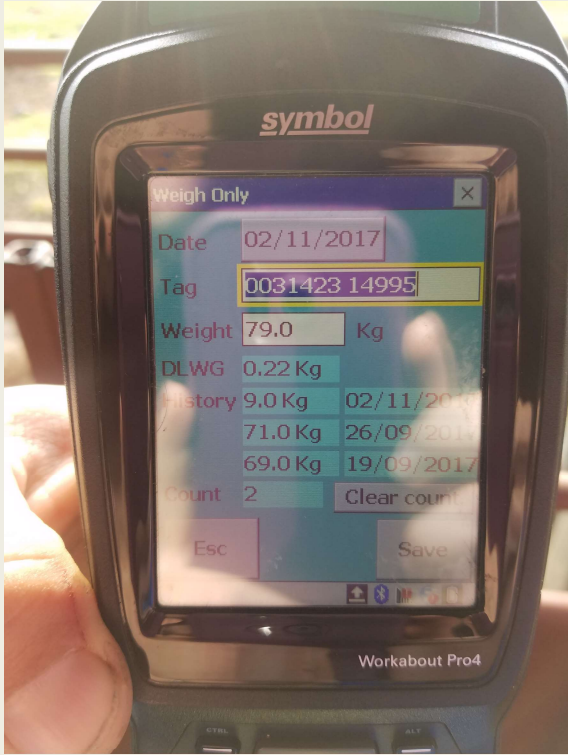


# What our system looks like

Scale Head



Stock Recorder





# Farm Works Software

General Report Form

Current printer: Microsoft Print to PDF [Click here to add the animals in this report to a management group](#)

Show/change printer settings before printing

1 of 2

powered by crystal

**Daily Live Weight Gain for home bred stock grouped by sire filtered by Breed (Bluefaced Leicester, Bluefaced Leicester Cross, Dorset Cross) and Birth Year (2017)**

Owner: Andrew Keller  
Holding Number: 00NABG1  
Holding Name: Vista View Farms  
Date Printed: 11/2/2

Tag Number	Management Tag	Dam Tag	Sex	Age	Start Date	End Date	Start Wgt	End Wgt	.WG
<b>Sire tag: 0031423 DUSTYJR</b>									
0031423 14997		0031423 15073	Ram	183d	5/3/2017	9/26/2017	10.00	100.00	0
0031423 14999		0031423 15073	Ram	183d	5/3/2017	9/26/2017	10.00	81.00	0
0031423 15082	17022	0031423 15068	Wether	193d	4/23/2017	9/26/2017	7.00	67.00	0
0031423 15087	17056	0031423 15059	Wether	184d	5/2/2017	9/26/2017	10.00	76.00	0
0031423 15088	17051	0031423 15059	Wether	184d	5/2/2017	8/29/2017	10.00	73.00	0
<b>Total No Animals</b>	<b>5</b>				<b>Average Days</b>	<b>143</b>	<b>Average DLWG :</b>		
<b>Sire tag: 0031423 MICHIGAN</b>									
0031423 14995	17044	0031423 15067	Wether	177d	5/9/2017	9/26/2017	10.00	71.00	0
0031423 15115	17036	0031423 15055	Wether	186d	4/30/2017	10/9/2017	15.00	106.00	0
0031423 15116	17038	0031423 15054	Wether	186d	4/30/2017	8/29/2017	18.00	82.00	0
0031423 15117	17039	0031423 15071	Wether	186d	4/30/2017	10/9/2017	12.00	123.00	0
0031423 15118	17040	0031423 15071	Ewe lamb	186d	4/30/2017	10/11/2017	15.00	79.00	0
0031423 15128	17029	0031423 15074	Ewe lamb	191d	4/25/2017	10/11/2017	12.00	101.00	0
0031423 15129	17030	0031423 15074	Ewe lamb	191d	4/25/2017	9/26/2017	15.00	102.00	0
0031423 15132	17034	0031423 3	Ewe lamb	189d	5/29/2017	10/11/2017	28.00	75.00	0
0031423 15134	17037	0031423 15055	Ewe lamb	186d	4/30/2017	9/26/2017	13.00	95.00	0
<b>Total No Animals</b>	<b>9</b>				<b>Average Days</b>	<b>151</b>	<b>Average DLWG :</b>		
<b>Sire tag: 0031423 RANSOM</b>									
0031423 15085	17049	0031423 15061	Wether	177d	5/9/2017	9/26/2017	10.00	81.00	0
0031423 15086	17048	0031423 15061	Ewe lamb	177d	5/9/2017	9/26/2017	10.00	64.00	0
<b>Total No Animals</b>	<b>2</b>				<b>Average Days</b>	<b>140</b>	<b>Average DLWG :</b>		
<b>Sire tag: 0031423 RINGO</b>									
0031423 15080		0031423 15048	Ewe lamb	193d	4/23/2017	10/11/2017	5.00	65.00	0
0031423 15084	17024	0031423 15063	Wether	190d	4/26/2017	9/26/2017	10.00	86.00	0
0031423 15119	17041	0031423 15072	Wether	186d	4/30/2017	10/15/2017	12.00	105.00	0
0031423 15120	17042	0031423 15072	Wether	186d	4/30/2017	10/15/2017	10.00	109.00	0
0031423 15125	17025	0031423 15062	Wether	192d	4/24/2017	8/29/2017	11.00	78.00	0
0031423 15126	17026	0031423 15062	Wether	192d	4/24/2017	10/15/2017	11.00	115.00	0
0031423 15127		0031423 15062	Ewe lamb	192d	4/24/2017	9/26/2017	10.00	80.00	0
<b>Total No Animals</b>	<b>7</b>				<b>Average Days</b>	<b>159</b>	<b>Average DLWG :</b>		

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Page 1 of 1

# Findings

- 70% of the time the determination to drench using the ROG factor was consistent with drenching animals with a 4 or 5 FAMACHA<sup>®</sup> score
  - *In this study it was a good selection tool for determining which animals to drench*
- Using ROG was less time consuming than conducting FAMACHA<sup>®</sup>
- Less frequently drenched lambs had lower egg counts
- The co-located lambs exhibited the same parasite resistance profiles



# Recommendations

- Setting the ROG cut-off value is difficult
  - *Need to know your breed and management style expected ROG*
  - *Set at ~ 60% of anticipated ROG*
- Every 2 weeks should be sufficient
  - *Allow 2 weeks to recover*
  - *Avoid the week after weaning*
- ROG is sensitive to other issues
  - *Weather (rain)*
  - *Lamb concerns*
    - Weaning
    - Coccidiosis
    - Hot weather



# Questions?

