

# Effect of Native Warm Season Grasses on Lamb Parasitism and Performance

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Sustainable Agriculture  
Research & Education

FS21-337



# Objective

Evaluate potential of native warm season grasses to improve lamb performance (greater weight gain and lower parasite burden) during summer grazing season





# Methods

- Lambs (n = 15/group) randomly assigned to graze native warm season or cool season grasses for 70 day post-weaning grazing trial
- Weights (WT) and fecal egg counts (FEC) measured every two weeks
- Lambs dewormed as needed based on FAMACHA score



# Summary Statistics

## Treatment Group

CS: Cool Season Grasses (Kentucky-31 Tall Fescue base)

WS: Native Warm Season Grasses (Bluestem and Indiangrass)

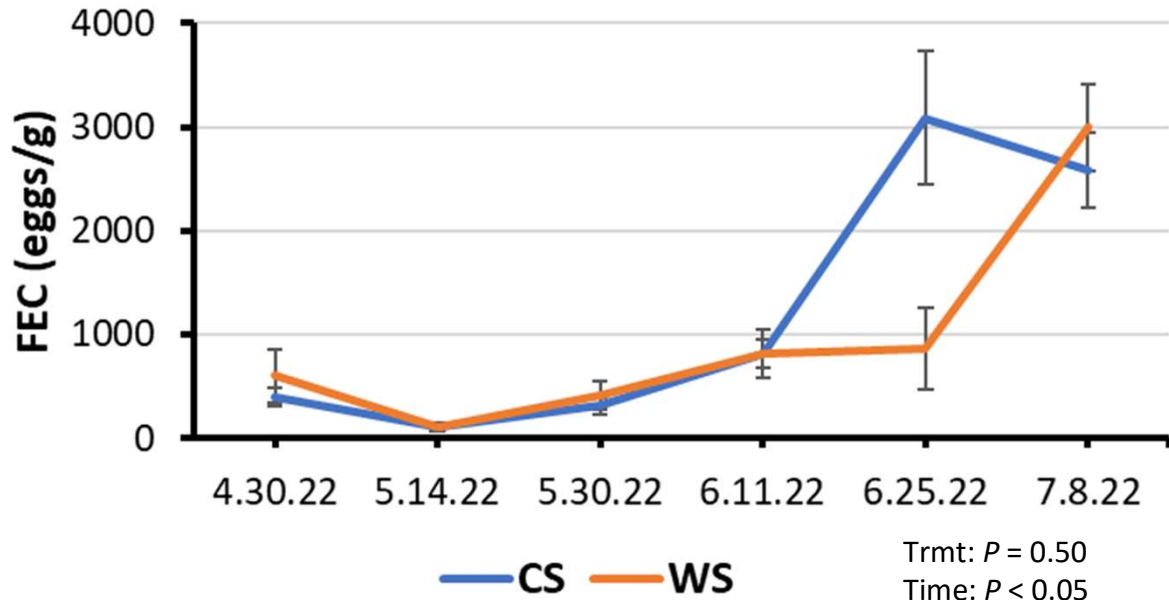
Treatment	% Sire 1	% Sire 2	% Male	% Female	Birth Type
CS	67	33	53	47	1.9
WS	53	47	47	53	1.8

	Estimated Breeding Values			
Treatment	WFEC (%)	PFEC (%)	WWT (kg)	PWWT (kg)
CS	-40.0	-48.3	2.0	2.7
WS	-28.6	-38.0	1.8	2.5

**Distribution of sire, sex, birth type, growth and fecal egg count estimated breeding values similar between each treatment group.**

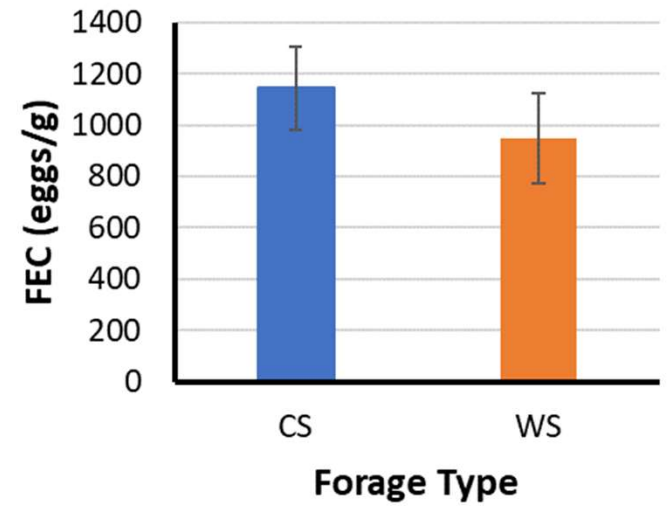


## Fecal Egg Counts



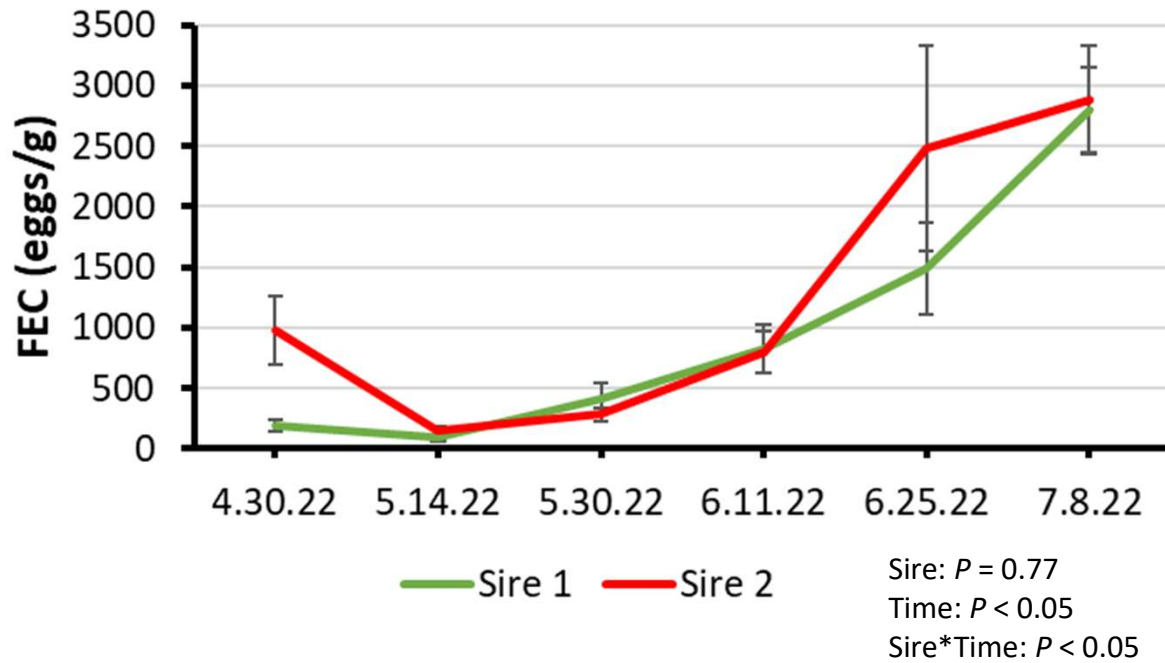
Trmt:  $P = 0.50$   
Time:  $P < 0.05$   
Trmt\*Time:  $P < 0.05$

## Average Fecal Egg Count





## Fecal Egg Counts by Sire



## Lamb Estimated Breeding Value

	WFEC (%)	PFEC (%)
Sire 1	-57	-61
Sire 2	0	-16

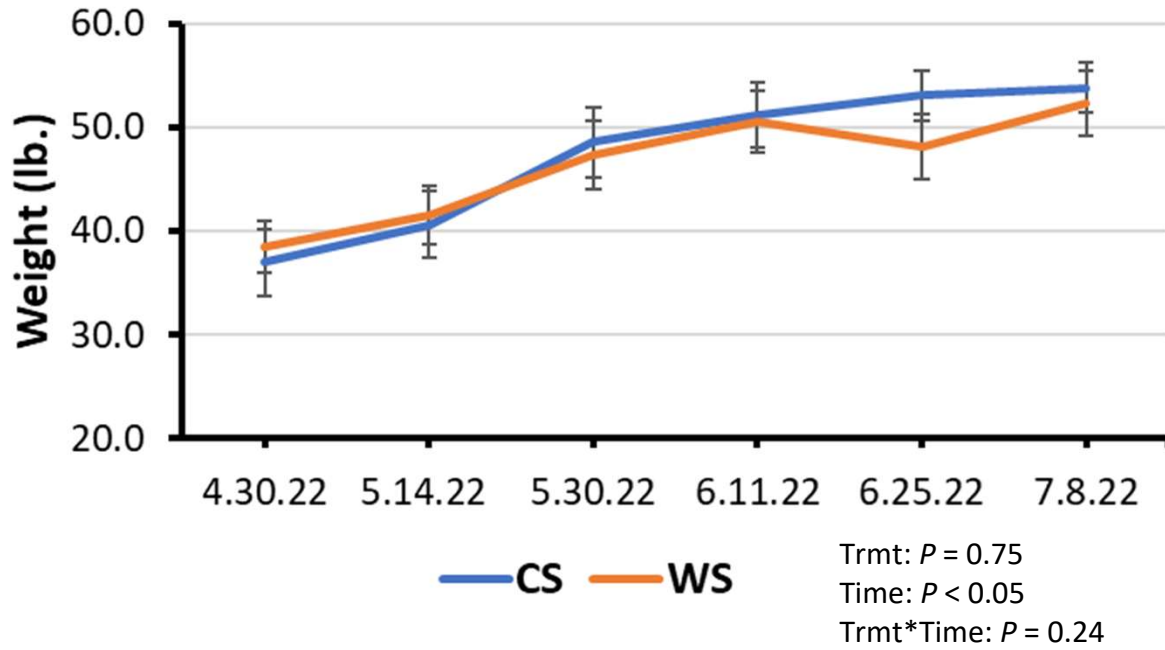
### Of the 6 total lambs dewormed:

- 1 sired by Sire 1
- 5 sired by Sire 2

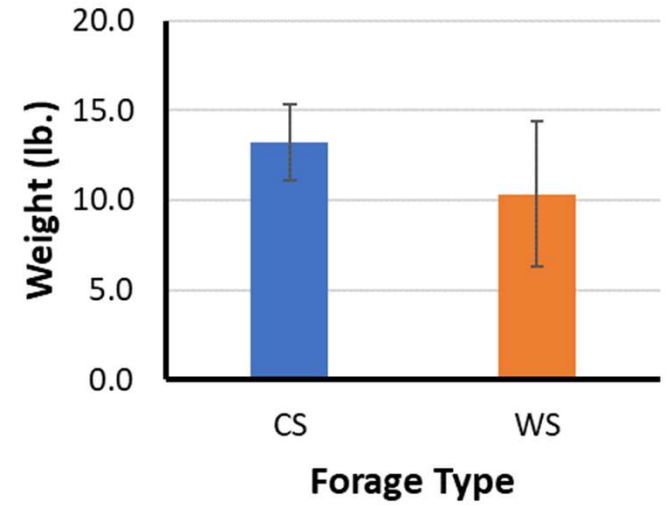




### Lamb Weight



### Total Gain

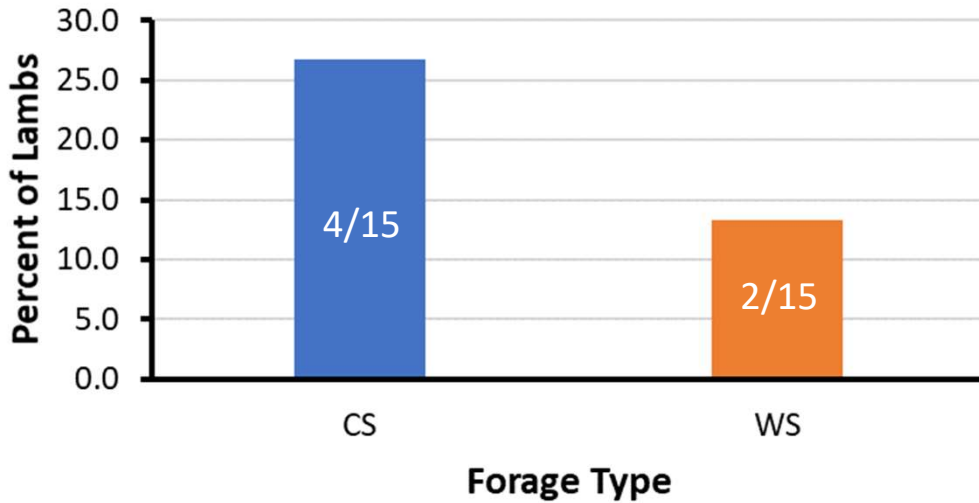


~70 day grazing trial





### Deworming Percentage



### Lambs dewormed at FAMACHA $\geq 3$

#### Cool Season Group

3 lambs dewormed 6/25 (FAMACHA = 4)

1 lamb dewormed 7/8 (FAMACHA = 5)

#### Warm Season Group

1 lamb dewormed 6/25 (FAMACHA = 5)

1 lamb dewormed 7/8 (respiratory disease symptoms)

	Lamb Estimated Breeding Value	
	WFEC (%)	PFEC (%)
Treated	-12	-32
Untreated	-40	-46





# Conclusions

- No difference in FEC between lambs grazing CS and WS grasses (FEC removed on lambs dewormed)
- No difference in WT between lambs grazing CS and WS grasses
- A greater proportion of lambs grazing CS grasses required deworming compared to those grazing WS grasses
  - Also, greater lamb FEC EBV associated with greater deworming



A photograph of a lush green field of tall grass, likely a pasture or hayfield. In the background, a wire fence runs across the frame, and beyond that, a line of trees is visible under a bright sky. The overall scene is vibrant and natural.

# Questions