

Effects of Confinement Finish and Cover Crop Grazed Lambs on Performance, Carcass Quality and Parasite Loads

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Introduction

- Many studies on the differences in finishing systems
 - Especially in cattle (1)
- Incorporating lamb finishing systems and terminating a cover crop
- Terminating a cover crop can be costly
 1. Chemical
 2. Mechanical
 3. Graze
 - Using lambs
 - Benefit the animal and crop producer
- Rising cost of grain
- Increasing demand for forage-finished meat products (2,3)
- Parasites problems world-wide (4)
- Potential methods to control parasites (5,6)

Objectives

Evaluate two confinement (high and moderate energy content) and two cover crop grazing (continuous and high intensity, short duration) finishing systems on lamb:

1. growth performance
2. carcass characteristics
3. internal parasites



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Materials and Methods

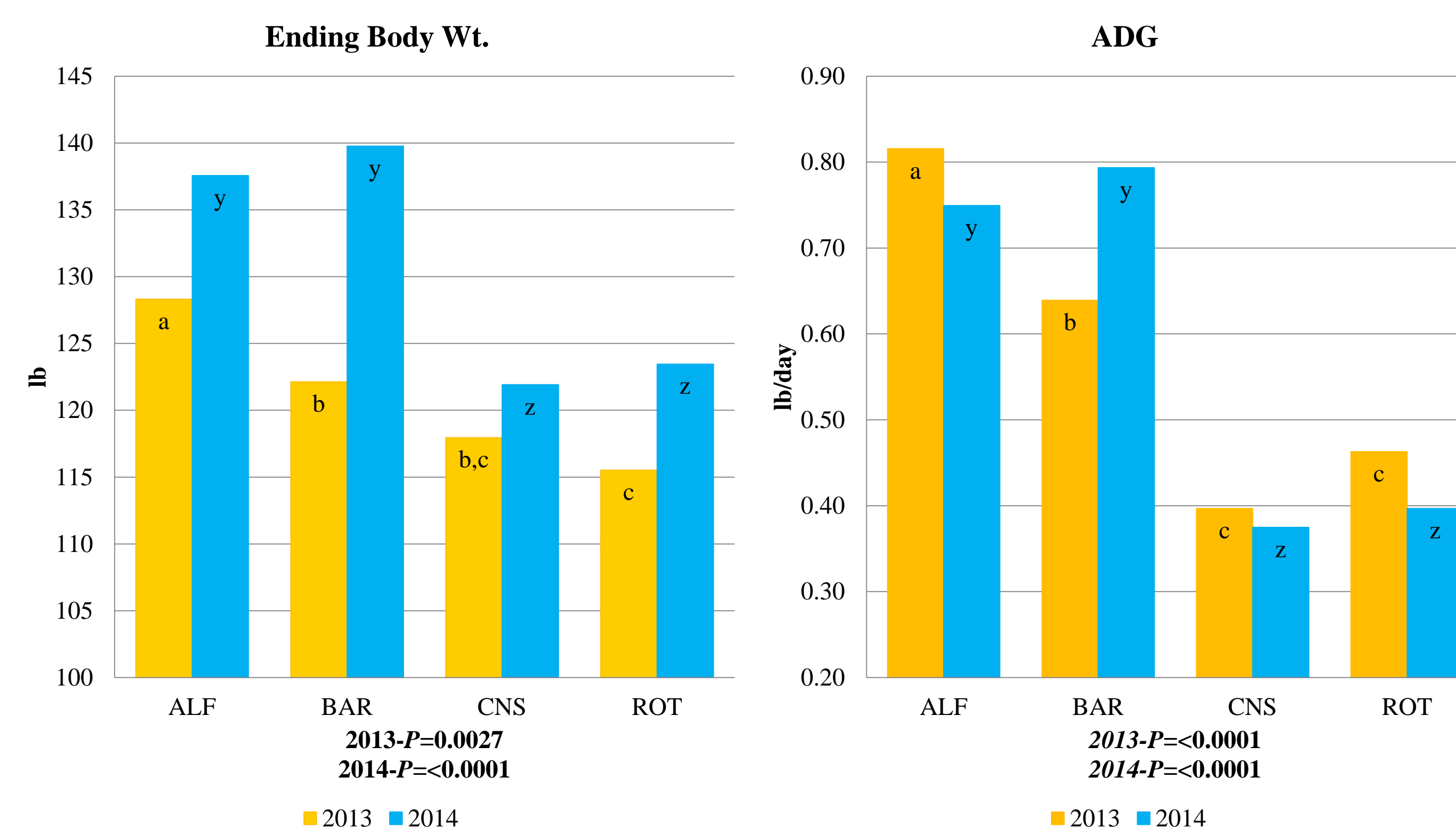
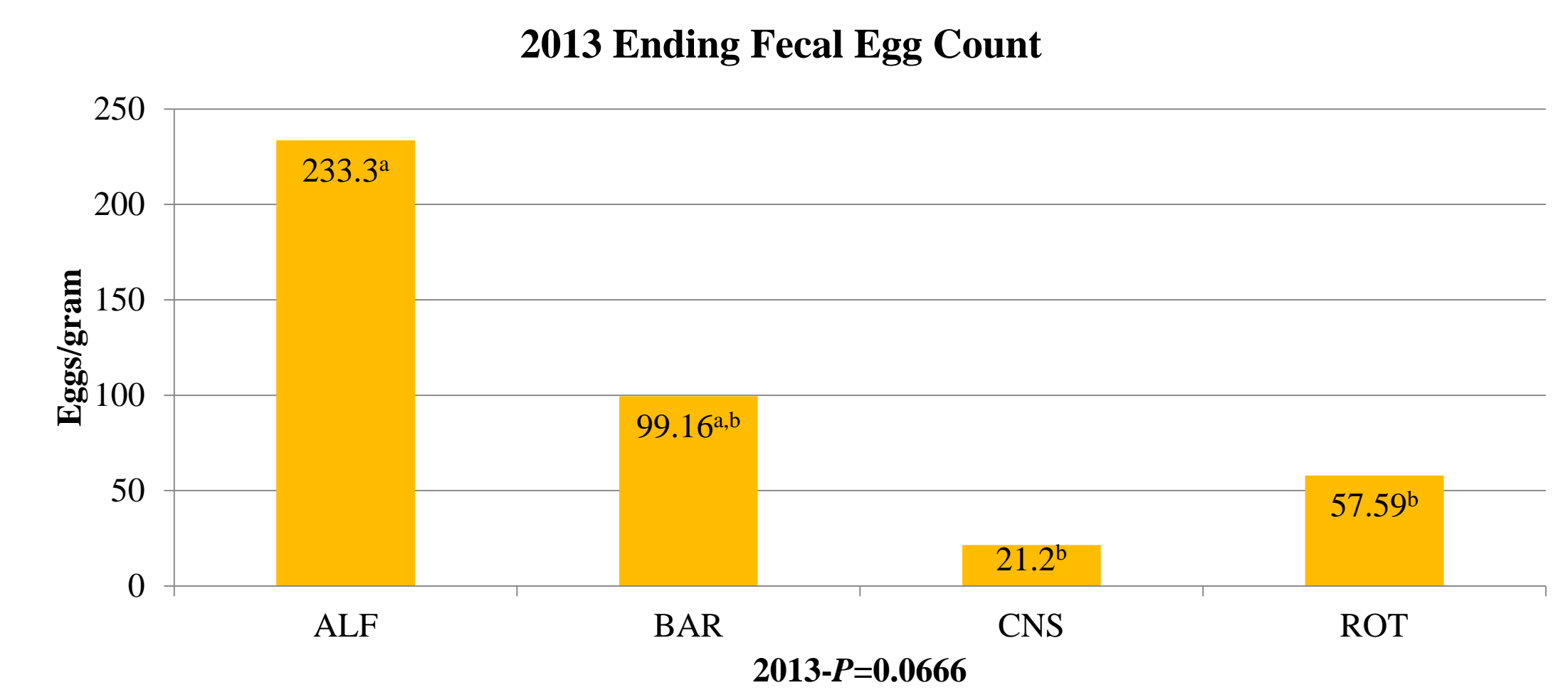
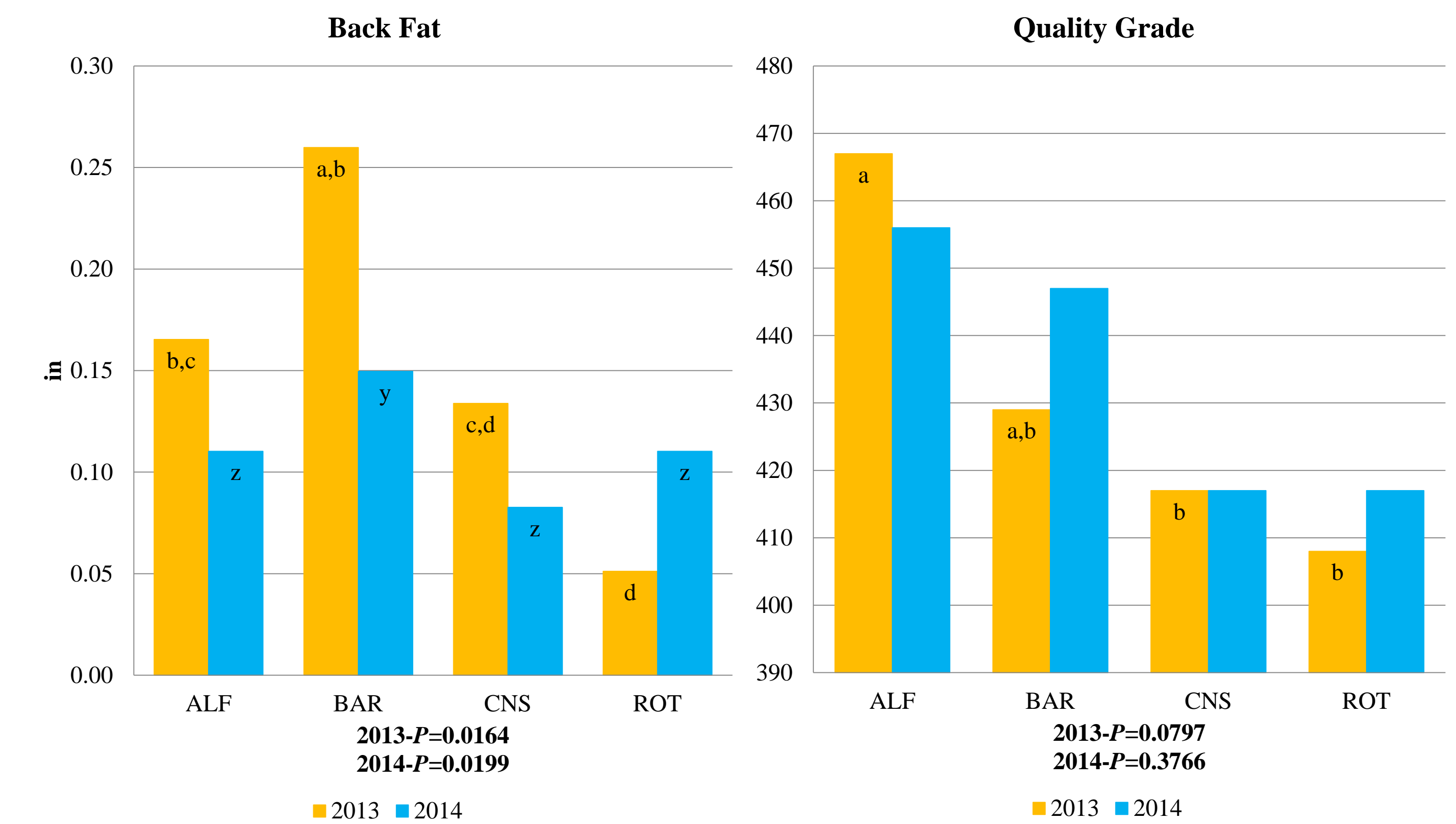
- 2013
 - Rambouillet wethers (n=48 avg. start bw=103.5±7.9lbs)
 - 3 pens/paddock per treatment (12 units total)
 - 4 lambs per pen or paddock
 - 39 day finishing period
- 2014
 - Rambouillet wethers (n=36 avg. start bw=107±9.5 lbs)
 - 3 pens per/paddock treatment (12 units total)
 - 3 lambs per pen or paddock
 - 40 day finishing period

Treatment:

- 1) confinement finished on moderate energy diet (ALF)
 - 1) 71% Alfalfa, 18% Barley – 2013 & 2014
- 2) confinement finished on high energy diet (BAR)
 - 1) 60% Barley, 26% Alfalfa – 2013 & 2014
- 3) cover crop grazing continuously (CNS)
 - 1) Pea (*Pisum sativum*) cover crop – 2013
 - 2) Clover (*Melilotus officinal*) cover crop – 2014
 - 3) Plots measured 15.24 meters by 45.72 meters
- 4) cover crop grazing high intensity short duration (ROT)
 - 1) Pea (*Pisum sativum*) cover crop – 2013
 - 2) Clover (*Melilotus officinal*) cover crop – 2014
 - 3) Plots measured one quarter of the 15.24 by 45.72 meters
 - 4) 4 day rotation through each quarter completed twice – 2013
 - 5) 5 day rotation through each quarter completed twice – 2014

Results

- Alpha set at P = 0.10 for all statistical analysis
- No Difference in Warner-Bratzler Shear Force



Implications

- Beneficial to producers looking for alternative methods to traditional lamb finishing
 - Added value to the animal and crop producer
- Allows for a quality lamb product at more diverse times
- Effectively terminate a cover crop while finishing lambs and reducing parasites.