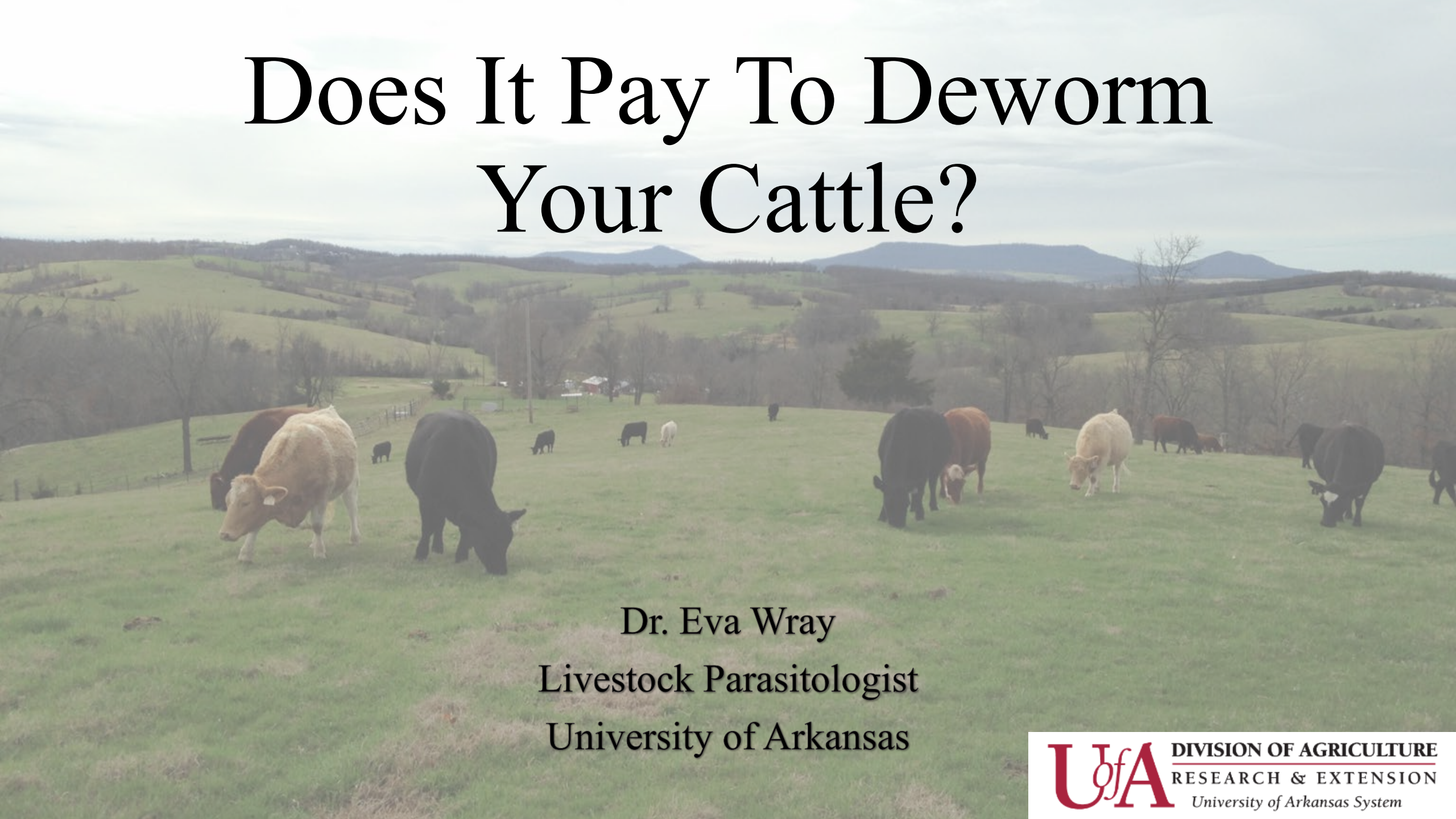
Does It Pay To Deworm Your Cattle?



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Does it pay to deworm your cattle?

- Commonly asked questions:
  - When do I deworm my cattle?
  - What is the best product to use?
  - Should I deworm my cattle at all?

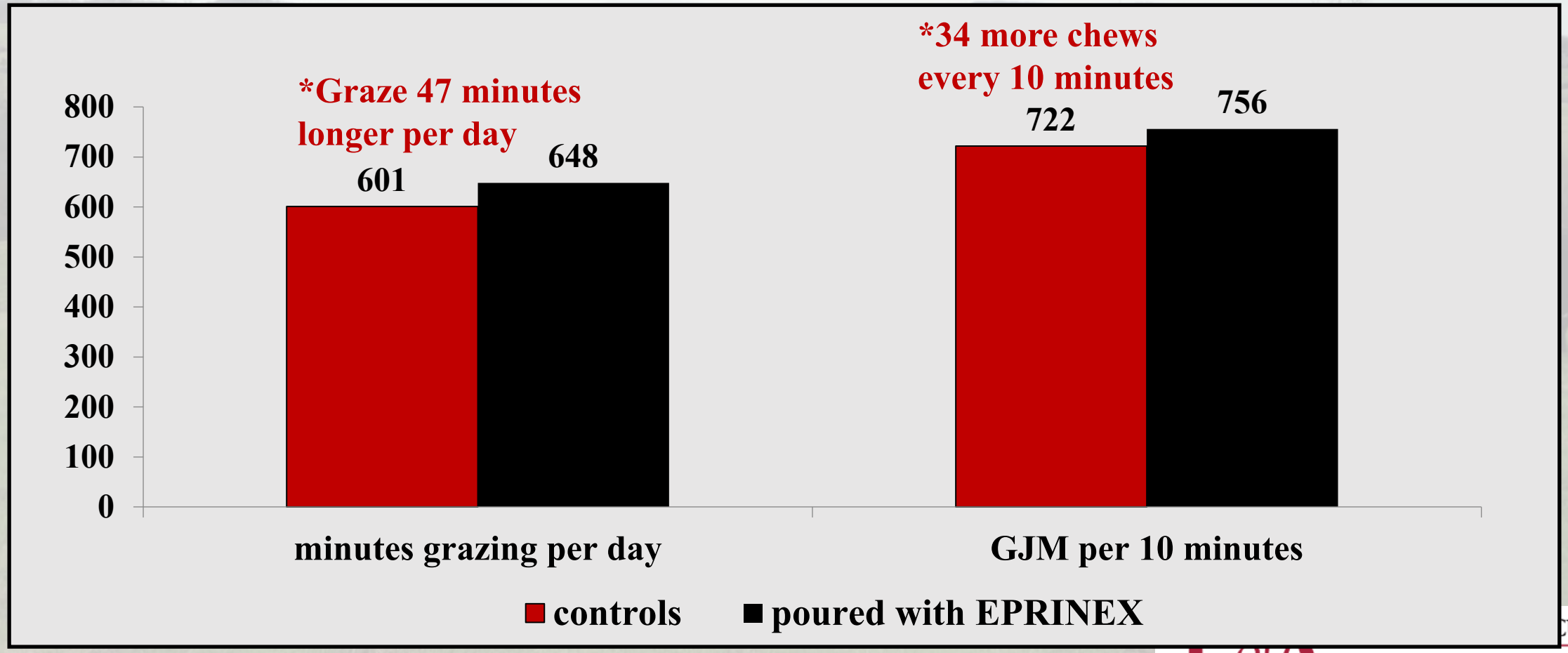
- The purpose of deworming is to increase your income and give your cattle a better quality of life

Why are worms so important?

- Negatively Impacts Production (which means Profits)
  - Affect Forage Intake Behavior
  - Affect Feed Conversion Rates
  - Increase Secondary Illnesses
  - Affect Reproduction Efficiency

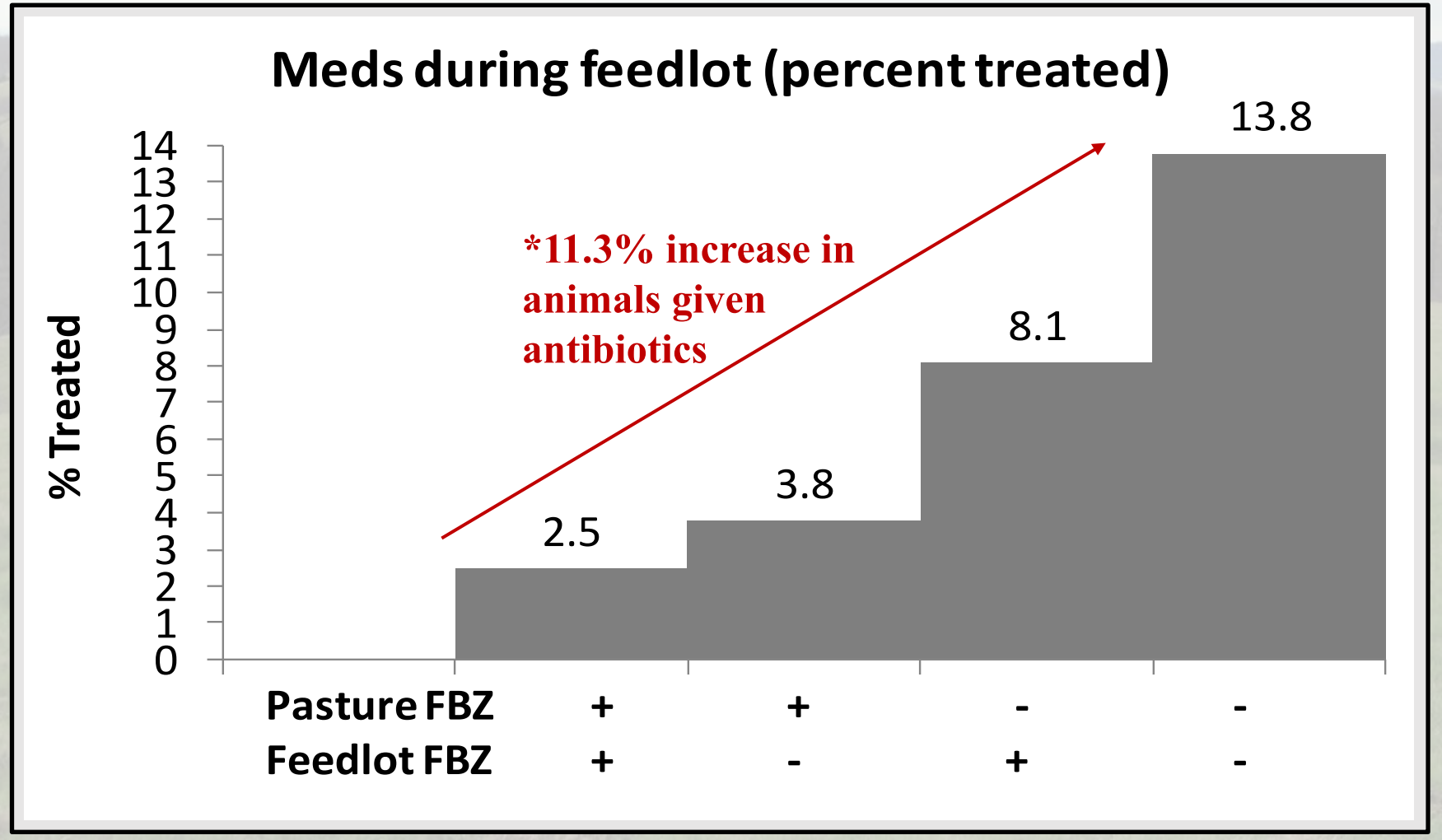
Changes in voluntary eating patterns Canadian dairy cows after deworming

-Forbes, Huckle & Gibb. 2004. *Veterinary Parasitology* 125:353-364



Controlling worms reduces secondary illnesses

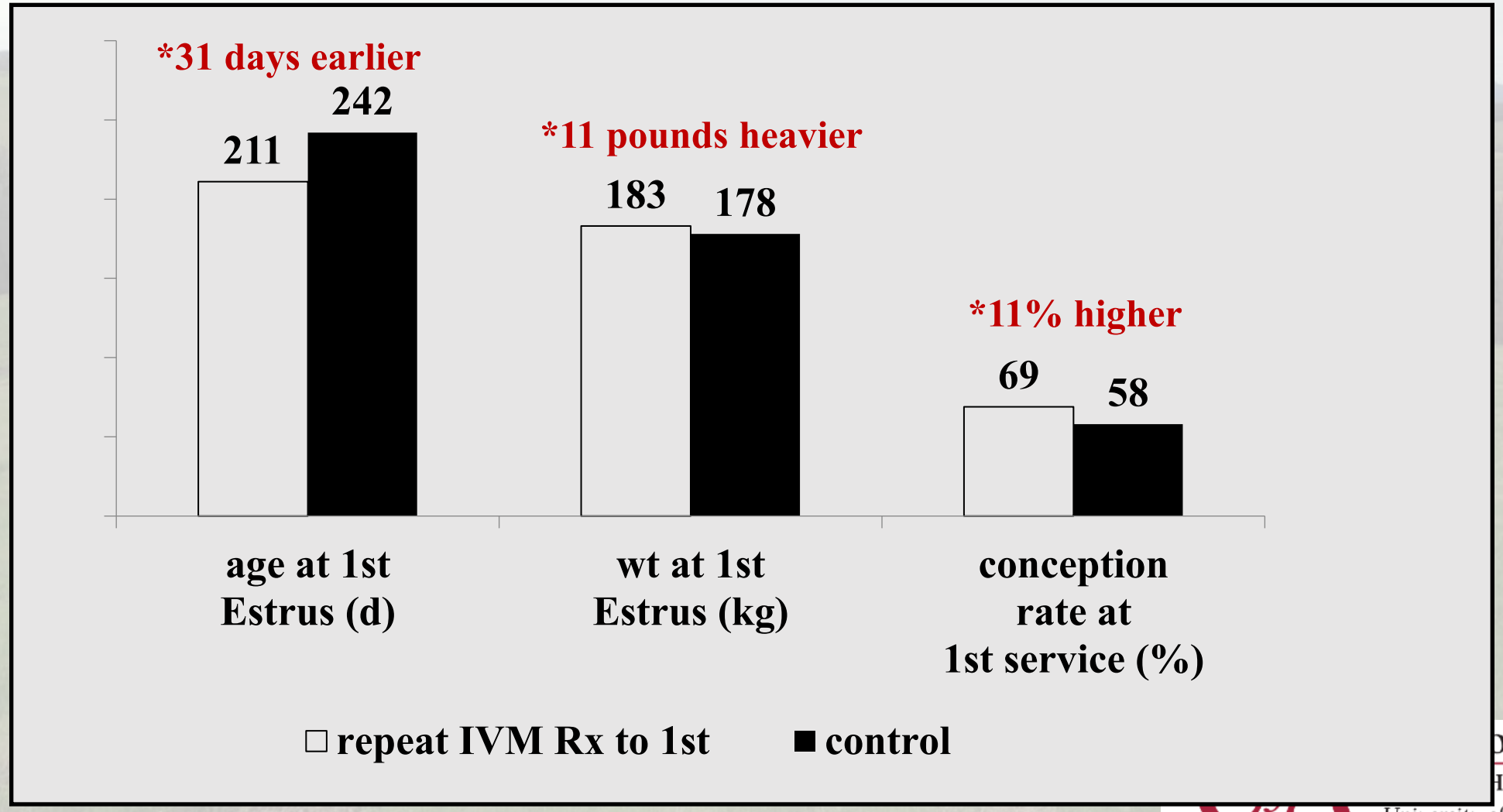
-Smith *et al.*, 2000



- "FBZ" = Safe-Guard
- FBZ given 3X while on pasture
  - days 0, 28 and 56
- FBZ given 1X at feedlot
  - day 118

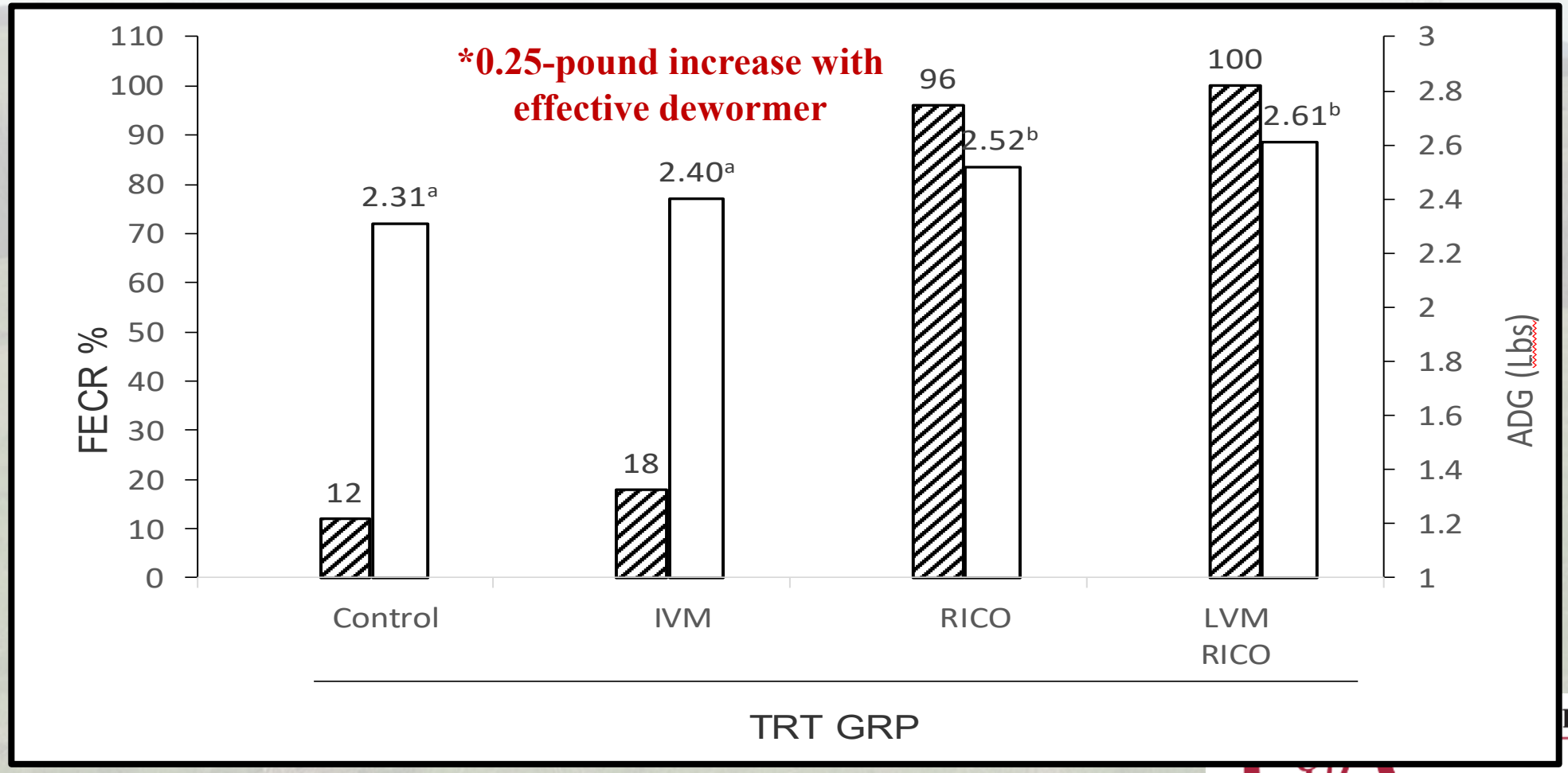
Progress of replacement Holsteins relative to deworming

-Mejia *et al*. 2009, *Veterinary Record*, 165:743-746



The effect of anthelmintic resistance on the productivity in feedlot cattle

-Fazzio, Sanchez, *et al*., (Argentina); Vet Parasitology, 2014



- Eliminating internal parasite control (**i.e. not deworming**) negatively impacts break-even selling price by 34%, **equal to a loss of $165 per head**

  - Decreased Intake, Poor Appetite
    - Lowered weight gains & milk production
    - Poor BCS, Poor reproductive efficiency
  - Blood and Tissue Loss
    - Reduced immune competence
    - Introduction of secondary pathogens
    - Lower feed conversions

Worms of Concern

- ✓**Cooperiads (3-4 different species)**
- ✓**Brown Stomach Worm (*Ostertagia*)**
- ✓**Barber Pole Worm (*Haemonchus*)**
- ❖Intestinal Thread-Necked Worm (*Nematodirus*)
- ❖Nodular Worm (*Oesophagostomum*)
- ❖Whipworm (*Trichuris*)
- ❖Liver Flukes (*Fasciola*)
- ❖Tapeworms (*Moniezia*)

✓**Important Everywhere**

❖**Important only on specific situations or some operations**

Helminths "coming to the feed yards" during the summer of 2014 (NE, OK & TX)

(282 fecal samples)

Item	Strongyle	*Nematodirus*	Moniezia
Positive Fecal Sample	98.9%	16.0%	17.4%
EPG range	0 – 9000	0 - 42	-
EPG Mean	362.8	1.2	-
% over 100 EPG	51.8	0	-

How do worms get so bad?

1. Not knowing the degree of infection
2. Not treating at all
3. Using ineffective products **
4. Using products improperly **
5. Unnecessary treatments **

****Drives Drug Resistance →→ $$ Lost**

When to Administer Deworming Treatments

- Treat when there is a challenge
  - “Targeted, Selective Treatments”
- Ideally, confirm treatments are necessary with Fecal Egg Counts
- Target specific seasons and production periods
- Use an effective dewormer
  - Fecal Egg Count Reduction Test

When to Administer Deworming Treatments

- Mama Cows — ~30 days Before Calving, Intake
  - Better Feed Conversions → Higher milk yields → Larger Calves and Quicker Return to Estrus
  - See more impact on production with first- and second-year heifers, and on milking operations
  - Typically, never need to treat healthy, mature mama cows

When to Administer Deworming Treatments

- Calves — At or Close to Weaning, Intake
  - Stressful time, diet change, taxed immune system
  - Lower parasite burdens → Better feed conversions → Significant Increase in Weight Gains
  - Fewer secondary infections

When to Administer Deworming Treatments

- Replacements — Spring, Fall, Intake
  - Younger, heavier and more successful at first heat/service
  - Higher milk yields → Heavier Calves and Quicker Return to Estrus

When to Administer Deworming Treatments

- Bulls — Spring, Fall, ~30 days Before Use
  - Males tend to have harder time with worms
  - Bulls get distracted and often don't take care of themselves, especially during breeding season
    →→ Higher Parasitisms

What dewormer should I use?

- Drugs
  1. "White Wormers"
  2. Prohibit
  3. Clorsulon
  4. Cydectin
  5. Eprinomectin Long Range
  6. Ivermectin (Avermectins)
     - Pioneer vs Genetic

- Application Methods
  1. Drench/Paste (Oral)
  2. Injectable
  3. Topical (Pour On)
  4. Extended-Release
  5. Feed Blocks/Additives

How do I develop a successful Parasite Control Program?

- Conduct regular Fecal Egg Counts
  - 100% of herd is ideal, 15-20% will work
  - As often as able—bi-monthly is best, seasonally is next best, yearly at the very least
- Test effectiveness of dewormers every time they are used (ideally)
  - Fecal Egg Count Reduction Test
  - 100% of herd is ideal, 15-20% will work

How do I develop a successful Parasite Control Program?

- Implement management strategies such as:
  - Grazing and Forage Management
    - ~90% of the worm population on pasture
    - Rotational grazing based on forage height
    - Forage-type differences

How do I develop a successful Parasite Control Program?

- Tailor your control program to your specific operation
  - Every operation is unique
    - Production Type
    - Worm Burdens
    - Resistance Levels
    - Available Land
    - Available Labor
    - Available Facilities
    - etc. etc. etc.

So, does it pay to deworm your cattle?

- Yes. But the only way to be certain is to do the following:
  - Accurately weigh your animals
    - "Beginning Weights": intake weights, weaning weights, before you administer treatments
    - "End Weights": after treatments, when selling calves, etc.
  - Accurately administer dewormers
  - Conduct FECRT in order to assess the effectiveness of your chosen dewormer
    - Calculating profits gained from deworming requires a set of "control" animals that are left untreated

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