

A META-ANALYSIS OF THE EFFECTS OF RUMENSIN® ON PERFORMANCE OF BEEF REPLACEMENT HEIFERS AND BEEF COWS¹

Elanco

Rumensin®

TRUSTED BY GENERATIONS

MADE IN
USA

STUDY OVERVIEW

A meta-analysis of 18 heifer and 21 cow publications was conducted to understand the effect of feeding Rumensin on the growth and reproductive performance of extensively raised beef cattle.

WHY RUMENSIN?

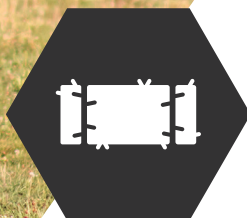
HEIFERS

Rumensin **increased average daily gain (ADG) by 5%**, **feed efficiency by 14%** and **the percent cycling before the breeding season by 16%**.



COWS

Rumensin **reduced dry matter intake (DMI) by 8%** and **reduced time to first estrus after parturition by 18 days**, with 19% more cows exhibiting estrus before breeding and no change in body weight (BW) or body condition score (BCS).



HEIFER RESULTS

REPLACEMENT HEIFERS: 18 PUBLICATIONS

Variable	N	Mean	SD	Min.	Max.
Supplementation duration, day	26	217	111	88	450
Initial BW, lbs	22	485	33.9	364	734
ADG, lbs	23	1.48	0.28	0.53	3.27
Daily feed intake, lbs	16	14.6	1.0	8.4	17.7
Gain/feed	15	0.0098	0.025	0.065	0.148
Age at puberty, day	19	416	42.0	336	514
Weight at puberty, day	17	677	29	584	822
Cycling prior to breeding, %	13	53.2	26.4	5.0	92
AI conception, %	10	45.4	20.0	13.8	78.6
Pregnancy, %	23	80.6	15.5	47	100

16%

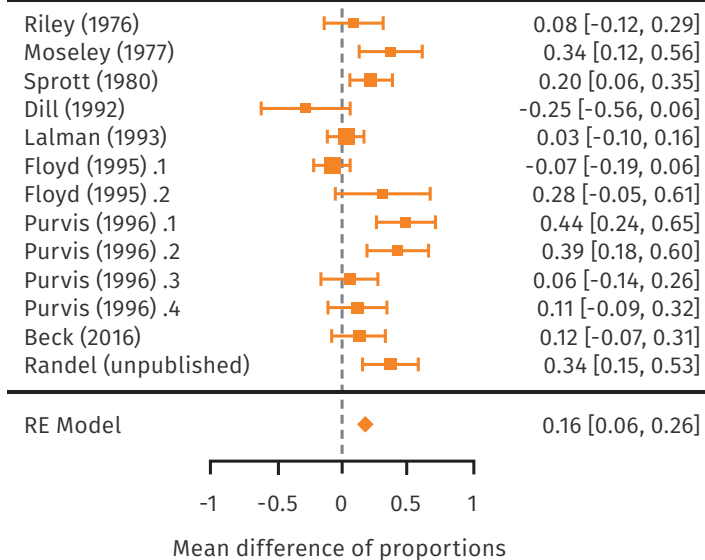
Rumensin increased the percent of heifers cycling by the beginning of the breeding season by 16% ($P = 0.002$)

9

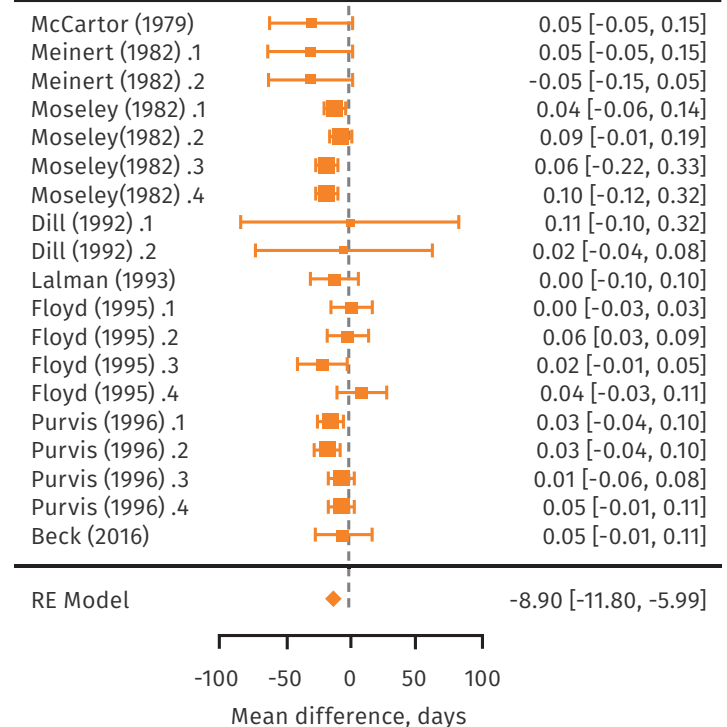
Rumensin reduced age at puberty by 9 days ($P < 0.0001$)

($P < 0.0001$)

PERCENT CYCLING



AGE AT PUBERTY



COW RESULTS

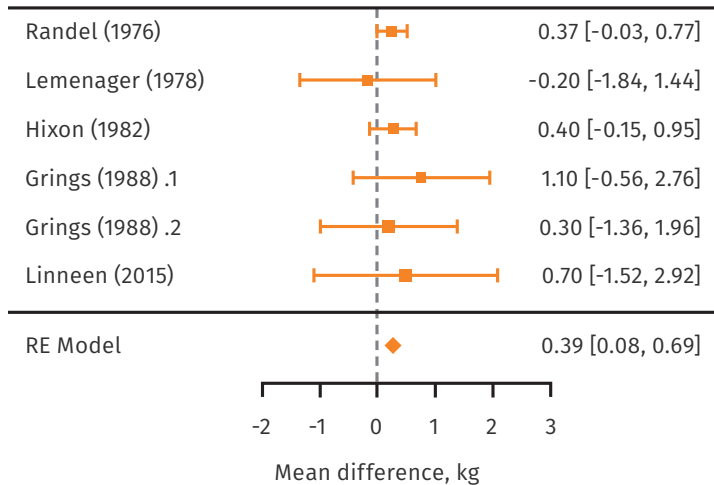
MATURE COWS: 21 PUBLICATIONS

Variable	N	Mean	SD	Min.	Max.
Supplementation duration, days	26	99	24.8	38	175
Monensin dose, mg/days	26	192	22.2	125	200
Initial BW, lbs	26	1,008	51.7	763	1,279
Initial BCS	10	5.7	0.73	4.6	7.1

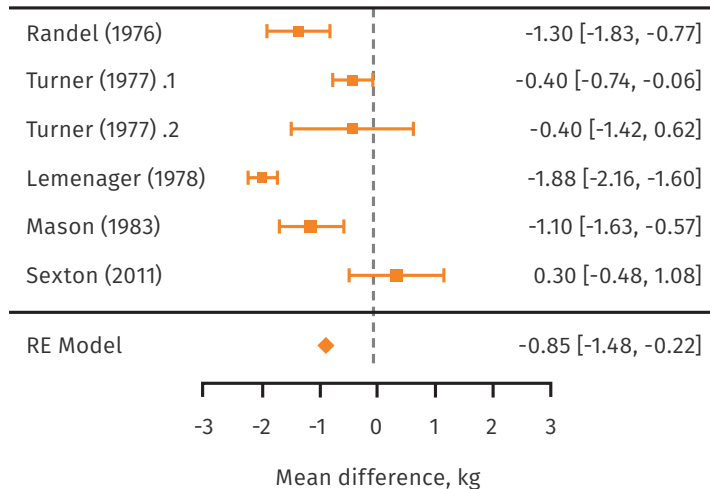
0.88 Rumensin increased milk yield by 0.88 lbs/day
($P = 0.01$)

8% Rumensin decreased DMI by 8%
(1.9 lbs/hd/day; $P = 0.008$)

MILK YIELD



FEED INTAKE



BEEF HEIFERS

- 9** Reached puberty 9 days earlier
- 16%** Increased percentage cycling before the breeding season by 16%
- 5%** Increased ADG by 5%
- 4%** While consuming 4% less feed
- 14%** Improved feed efficiency by 14%

BEEF COWS

- 18** Reduced time to first estrus after parturition by 18 days
- 19%** Increased percentage of cows exhibiting estrus before breeding by 19%
- 0.88** Increased milk yield by 0.88 lbs/day
- 8%** While consuming 8% less feed
- 0** With no change in BW or BCS

MAIN TAKEAWAY

The results of this meta-analysis indicate that feeding Rumensin to beef replacement heifers and beef cows allows you to utilize fewer feed resources and positively impact reproductive performance.

The label contains complete use information, including cautions and warnings. Always read, understand and follow the label and use directions.

CAUTION: Consumption by unapproved species or feeding undiluted may be toxic or fatal. Do not feed to veal calves.

Growing beef steers and heifers fed in confinement for slaughter:

For improved feed efficiency: Feed 5 to 40 g/ton of monensin (90% DM basis) continuously in a complete feed to provide 50 to 480 mg/hd/day.

For the prevention and control of coccidiosis due to *Eimeria bovis* and *Eimeria zuernii*: Feed 10 to 40 g/ton of monensin (90% DM basis) continuously to provide 0.14 to 0.42 mg/lb of body weight/day, depending upon severity of challenge, up to a maximum of 480 mg/hd/day.

Growing beef steers and heifers on pasture (stocker, feeder, and slaughter) or in a dry lot, and replacement beef and dairy heifers:

For increased rate of weight gain: Feed 50 to 200 mg/hd/day in at least 1.0 lb of Type C Medicated Feed. Or, after the 5th day, feed 400 mg/hd/day every other day in 2.0 lbs of Type C Medicated Feed. The Type C Medicated Feed must contain 15 to 400 g/ton of monensin (90% DM basis). Do not self feed.

For the prevention and control of coccidiosis due to *Eimeria bovis* and *Eimeria zuernii*: Feed at a rate to provide 0.14 to 0.42 mg/lb of body weight/day, depending upon severity of challenge, up to a maximum of 200 mg/hd/day. The Type C Medicated Feed must contain 15 to 400 g/ton of monensin (90% DM basis).

Type C free-choice medicated feeds: All Type C free-choice medicated feeds containing Rumensin must be manufactured according to an FDA-approved formula/specification. When using a formula/specification published in the Code of Federal Regulations (CFR), a Medicated Feed Mill license is not required. Use of Rumensin in a proprietary formula/specification not published in the CFR requires prior FDA approval and a Medicated Feed Mill License.

Beef cows:

For improved feed efficiency when receiving supplemental feed: Feed continuously at a rate of 50 to 200 mg/hd/day. Cows on pasture or in dry lot must receive a minimum of 1.0 lb of Type C Medicated Feed per head per day. Do not self feed.

For the prevention and control of coccidiosis due to *Eimeria bovis* and *Eimeria zuernii*: Feed at a rate of 0.14 to 0.42 mg/lb of body weight/day, depending upon severity of challenge, up to a maximum of 200 mg/hd/day.

¹Gadberry, S., Beck, P., Moore, M., White, F., Linneen, S., & Lalman, D. (2022). Meta-analysis of the effects of monensin on performance of beef replacement heifers and Beef cows. *Translational Animal Science*, 6(3), 1–9.