

— TRUSTED BY — GENERATIONS

Elanco

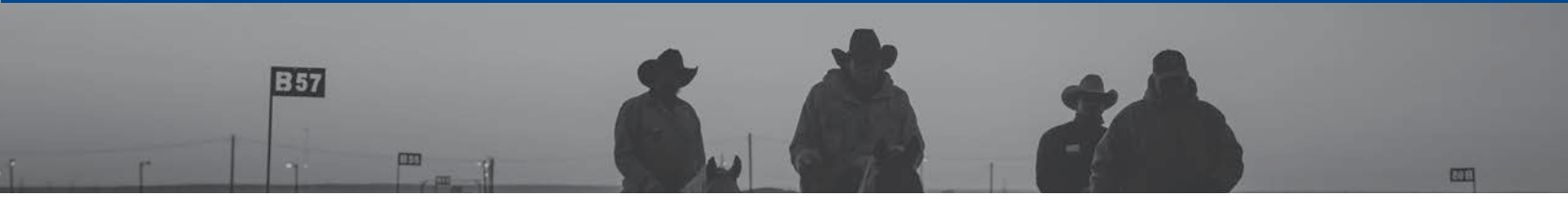
Rumensin[®]



**BRINGING YOU CONSISTENT
QUALITY AND VALUE
BEYOND PRODUCT**



Elanco



A LEGACY OF PROGRESS

For over 40 years, producers have trusted Elanco's Rumensin® (monensin, USP) to deliver consistent, dependable results that add more profit potential to the bottom line. The findings from more than 400 Elanco research studies have made it possible for producers to include Rumensin in ever-changing feed programs and management systems. Today — through continuous innovation and research — Rumensin is approved not only for feedyard cattle, but also for dairy and beef cows, stockers, replacement heifers and calves.

ATTENTION TO EVERY DETAIL SETS RUMENSIN APART

- Decades of monitoring monensin products sold outside the U.S. have revealed important differences between Rumensin and the generic monensin products
- There are measurable differences in formulation, particle size and potency that fluctuate within and between products
- These variations can impact homogeneous distribution in cattle feed, which can affect cattle performance
- Rumensin is specifically formulated for durability and homogeneous mixing throughout the feed manufacturing process
- Rumensin contains exclusive microtracers that, when coupled with Elanco's feed analytical services, provide peace of mind and quality assurance for feed mill operators

RUMENSIN IS CONSISTENTLY HIGH QUALITY AND RUMINANT-SOURCE-MATERIAL FREE, SO PRODUCERS CAN USE IT WITH CONFIDENCE

- Elanco's internal specifications for potency exceed the minimum regulatory requirements and ensure that the levels of active ingredient are consistent from batch to batch
- More than 92% of Rumensin particles are within the target range for adequate mixing
- Approximately 15% of Elanco manufacturing personnel work on independently accountable quality teams
- Elanco maintains traceability and quality control for every step of the manufacturing process, from strain development to warehousing and distribution

ELANCO INVESTS TIME AND RESOURCES TO HELP PRODUCERS SUCCEED OVER THE LONG HAUL

- Elanco sales and technical support teams help producers implement products on their operations and solve problems that arise
- Feed-mixing services, including feed assays, microtracer kits and feed-mixing dye tests, help producers and nutritionists monitor and improve feed management practices
- Specialized team members help producers, feed companies and nutritionists with process efficiency, worker training and low-energy animal handling to enhance operational practices
- Analytical services, supported by Elanco Knowledge Solutions such as Benchmark®, milkfat assessments and custom consultations, help customers understand their businesses from every aspect
- Elanco's Public and Government Affairs teams help ensure that public policies and perceptions are favorable for the industry
- Involvement in industry associations, university and extension programs, and trade advocacy groups helps support the animal production industry

THE BENEFITS OF FEEDING RUMENSIN

DAIRY



Improves milk production efficiency* by delivering up to 4% more energy per pound of feed¹ and a return on investment (ROI) of at least 5:1²

Helps dairy replacement heifers get more energy from their feed, freeing up nutrients for growth and development.³ This enables heifers to conceive and calve from 36 to 61 days earlier than control^{4,5} and provides — on average — a 7:1 ROI⁶

FEEDYARD



Improves feed efficiency (FE) by providing more energy from the ration⁷

Research demonstrates a 4% improvement in FE, providing a net return of \$23.13/hd⁸

STOCKER



Delivers 20 lbs. or more per head of additional selling weight during a 100-day grazing period⁹

COW/CALF



The only ionophore approved for mature, reproducing cows, Rumensin improves feed efficiency, reducing their feed requirements by 5% to 10% while maintaining body weight with no negative effects on reproductive performance¹

Improves average daily gain in replacement heifers, resulting in fewer days to first estrus, which can result in better lifetime productivity¹⁰

COCCIDIOSIS PREVENTION AND CONTROL



The most potent feed ingredient available¹¹ that kills coccidiosis parasites at three different stages of the life cycle instead of merely slowing development¹²

More efficacious at lower doses compared to other ionophores¹¹

By preventing and controlling coccidiosis, Rumensin helps dairy calves avoid "stallout," enabling a better transition into group housing with faster weight gain (0.21 lb/head/day)⁶ with no change in feed intake

*Production of marketable solids-corrected milk per unit of feed intake.

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

Rumensin

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

Cattle fed in confinement for slaughter

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

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

Growing cattle on pasture or in dry lot (stockers, feeders, and dairy and beef replacement heifers)

For increased rate of weight gain: Feed 50 to 200 mg/hd/d in at least 1.0 lb of Type C medicated feed. Or, after the 5th day, feed 400 mg/hd/d every other day in at least 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/d, depending upon severity of challenge, up to a maximum of 200 mg/hd/d. The Type C medicated feed must contain 15 to 400 g/ton (90% DM basis).

Free-choice (self-fed) medicated feeds: Approved supplements must provide not less than 50 nor more than 200 mg/hd/d of monensin.

Mature reproducing beef cows

For improved feed efficiency when receiving supplemental feed: Feed continuously at a rate of 50 to 200 mg/hd/d. Cows on pasture or in dry lot must receive a minimum of 1.0 lb of Type C medicated feed/hd/d. 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/d, depending upon severity of challenge, up to a maximum of 200 mg/hd/d.

Calves (excluding veal calves)

For the prevention and control of coccidiosis due to *Eimeria bovis* and *Eimeria zuernii*: Feed at a rate of 0.14 to 1.0 mg/lb of body weight/d, depending upon severity of challenge, up to a maximum of 200 mg/hd/d. The Type C medicated feed must contain 10 to 200 g/ton of monensin (90% DM basis).

Dairy cows

For increased milk production efficiency (production of marketable solids-corrected milk per unit of feed intake)

Total mixed rations (complete feed): Feed continuously to dry and lactating dairy cows a total mixed ration ("complete feed") containing 11 to 22 g/ton monensin on a 100% dry matter basis.

Component feeding systems (including top dress): Feed continuously to dry and lactating dairy cows a Type C medicated feed containing 11 to 400 g/ton monensin. The Type C medicated feed must be fed in a minimum of 1 pound of feed per cow per day to provide 185 to 660 mg/head/day monensin to lactating cows or 115 to 410 mg/head/day monensin to dry cows. This provides cows with similar amounts of monensin they would receive by consuming total mixed rations containing 11 to 22 g/ton monensin on a 100% dry matter basis.

¹Freedom of Information Summary. NADA 095-735.

²Elanco Animal Health. Data on file.

³Elanco Animal Health. Data on file.

⁴Baile CA, McLaughlin CL, Chalupa WV, et al. Effects of monensin fed to replacement dairy heifers during the growing and gestation period upon growth, reproduction, and subsequent lactation. *J Dairy Sci.* 1982;65(10):1941-4.

⁵Meinert RA, Young CMJ, Heinrichs AJ, et al. Effect of monensin on growth, reproductive performance, and estimated body composition in Holstein heifers. *J Dairy Sci.* 1992;75(1):257-61.

⁶Isch JA, Shirley JE, Scheffel MV, et al. Effects of Rumensin and Bovatec on growth, feed intake and feed efficiency in dairy calves. Kansas Agricultural Experiment State Research Report. 1999;0(2):4-7.

⁷Richardson LF, Raun AP, Potter EL, et al. Effect of monensin on rumen fermentation in vitro and in vivo. *J Anim Sci.* 1976;43(3):657-64.

⁸Elanco Animal Health. Data on file.

⁹Elanco Animal Health. Data on file.

¹⁰Elanco Animal Health. Data on file.

¹¹Long PL, Jeffers TK. Studies on the stage of action of ionophorous antibiotics against *Eimeria*. *J Parasitol.* 1982;68(3):363-71.

¹²McDougald LR, Hofacre C, Mathis G, et al. Chemotherapy of coccidiosis. In: Long PL, editor. *The Biology of the Coccidia*. Baltimore, MD: University Park Press;1980:373-427.