

MIN-AD increased average DMI by 1.4%, ADG by 3.2%, and improved feed conversion by 1.8% in 10 production trials. Consistent results like these require consistent buffering and minerals.

MIN-AD is a unique, natural feed supplement that is both a buffer and a source of magnesium and calcium. Backed by 40 years of research and use, you can have confidence in the benefits MIN-AD brings to your feedlot operation.



A Quality Product

Quality assurance is critical for the feed industry. From special mining techniques that eliminate contamination, to rigorous inspection and cleaning procedures for our carriers, we ensure you receive a quality product. MIN-AD is also certified free of dioxins and heavy metals and has been listed by OMRI for use in production of organic food.

MIN-AD is the specialty mineral supplement backed by research and quality testing. Ask for it by name!



MIN-AD

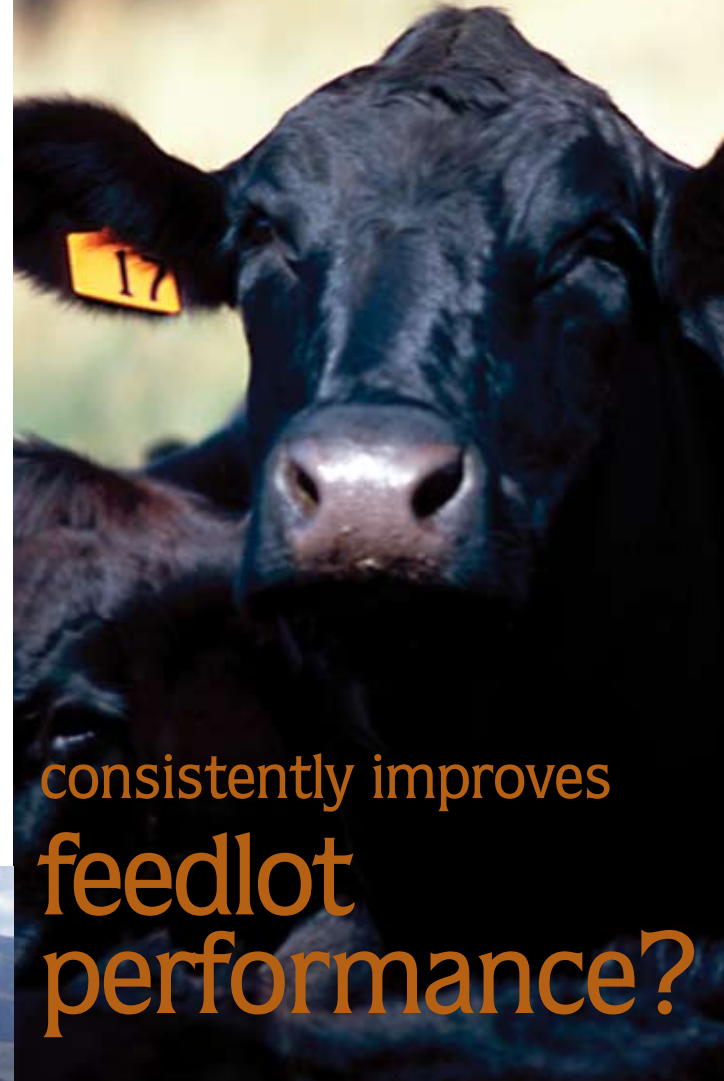
Toll-free: 1.888.848.8178
Web site: www.min-ad.com



Our Winnemucca facility is certified under the AFIA Safe Feed/Safe Food program.



Ever wonder why
MIN-AD



consistently improves
**feedlot
performance?**



MIN-AD[®]

Adds Nutritional Advantages



MIN-AD

Adds Nutritional Advantages

Mg Solubility and Buffering

Magnesium oxide is a common source of supplemental Mg used in feedlot rations, but how does it compare to MIN-AD, a common Mg source and buffer?

When both MIN-AD and MgO come into contact with acid in the rumen and abomasum, they dissolve, which neutralizes the acid and releases the Mg ion. Eleven feed grade MgO samples were collected and analyzed for the amount of acid they neutralized and, equivalently, the percent of Mg that solubilized. The test was run for two hours at a temperature of 39°C in a solution with a pH of about 2.

The results are shown in the table to the right as a percentage of the total amount of Mg that went into solution. On average, the MgO was only able to neutralize 35% of its theoretical potential. This also means that only 35% of the Mg was solubilized. In 10 of the 11 samples, less than 50% of the Mg went into solution at a pH that was lower than abomasal levels.

At least 90% of MIN-AD consistently solubilizes during the same test. This gives you confidence in MIN-AD as both a buffer and mineral source.

Sample ID	Listed Mg %	% Mg solubilized
MgO 1	56	37.9
MgO 2	58	42.1
MgO 9	54	36.1
MgO 10	Unknown	61.5
MgO 3	51	32.3
MgO 4	58	17.1
MgO 5	54	36.1
MgO 6	54	23.6
MgO 7	56	24.3
MgO 14	54	49.2
MgO 8	56	24.8
Average	55	35.0
MIN-AD	12	93.0

Realize the Benefits

MIN-AD can fully replace MgO in feedlot rations and can partially replace limestone as it contains 22% calcium. Every day, the performance of over 2,000,000 cattle can vouch for this. The usage example below shows how you can get more Mg.

	Inclusion	Mg	Solubility	Soluble Mg
MIN-AD	3 oz	12%	90%	0.324 oz
MgO	1 oz	54%	35%	0.189 oz

Ask your nutritionist to make MIN-AD part of your buffer and mineral program, and realize the benefits:

- Increase ADG and improve feed conversions
- Manage acidosis
- Increase microbial efficiency
- Add minerals