

Mexican Dairy Field Trial

This bulletin is one of a series of technical bulletins that discusses the applications of MIN-AD® to feedlot and dairy cattle nutrition and health.

From October, 2000 to February 28, 2001 a field trial was conducted with 860 Holstein cows at a commercial Mexican dairy near Aguascalientes (approximately 400 km northeast of Mexico City). The trial was supervised by Dr. Gerardo Llamas.

A switchback design was employed to compare a sodium bicarbonate + MgO mix with MIN-AD. Rations were typical of those used in Mexico (alfalfa, green forage, etc.). Performance by period and buffer is given in the table below. Protein and fat values are the arithmetic average of measurements from all cows taken at the mid-point of each period.

Period	Buffer	Avg. Daily Litres/Cow	Average % Fat	Average % Protein
Oct. – Nov.6	180g bicarb + 40g MgO	29.48	3.8	3.3
Nov.7-Nov.26	220g MIN-AD	30.51	3.7	3.2
Nov.27-Jan.5	180g bicarb + 40g MgO	31.79	3.6	3.3
Jan.6-Jan.29	200g MIN-AD	31.16	3.7	3.3
Jan.30-Feb.28	180g bicarb + 40g MgO	30.81		

The average daily production with MIN-AD was 30.83 litres/day/cow, while that with the sodium bicarbonate + MgO buffer was 30.69 litres/day/cow.

MIN-AD successfully replaced the typical buffer combination of sodium bicarbonate and MgO in this field trial. In addition to the savings due to using a low cost product, the trial results suggest that the buffer/magnesium component of the supplement can be reduced by at least 20g. Reducing the supplement size can improve palatability and free up space for other supplements.

Technical Bulletin D-1, "MIN-AD Dairy Ration Fermentation Studies", discusses the use of MIN-AD in combination with sodium bicarbonate.

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