

Magnesium Requirements for Dairy Cows

Start supplementing cows with magnesium at least three weeks before cows are due to calve.

Table 1 – Magnesium* (Mg) requirements (grams/cow/day) for dry and lactating cows

Lactating cows			
Intake kgDM/cow/day	Total Mg required g/cow/day	Mg from pasture g/cow/day	Mg supplementation required g/cow/day
16 kg	48 g	32 g	16 g
17 kg	51 g	34 g	17 g
18 kg	54 g	36 g	18 g
19 kg	57 g	38 g	19 g
20 kg	60 g	40 g	20 g
Dry Cows			
Mg supplementation required g/cow/day	Jersey	Crossbred	Friesian
8-12 kgDM intake	12 g	16 g	20 g

Source: www.dairynz.co.nz/file/fileid/28738

*The magnesium levels stated in Table 1 are for elemental magnesium down the throat. Please refer to Table 2 for the amount of elemental magnesium in magnesium supplements.

Table 2 – Elemental magnesium content of magnesium supplements

Magnesium supplement	Elemental magnesium content (%)	What does this mean? 60 grams of product down the throat delivers...g of elemental magnesium
Magnesium oxide 92%	55%	33 g
Magnesium oxide 87%	52%	31 g
Magnesium chloride	12%	7 g
Magnesium sulphate	10%	6 g

Remember to account for wastage when calculating final rates. We recommend you consult with your PGG Wrightson Technical Field Representative to ensure your magnesium supplementation program meets cow requirements.

NOTE – The amount of supplemental magnesium required is highly variable and will vary from property to property depending on the magnesium source used, particle size, forage levels of magnesium, nitrogen and potassium, and rumen pH. The efficacy of supplementation should be assessed by measuring magnesium levels in the blood.