# MATRIX

## **HI-MINERAL** Oral Drench for Sheep



ACTIVE MINERALS DOSE RATE ORAL DRENCH CONTROLS















MATRIX® Hi-Mineral is the ultimate threeway drench with unsurpassed efficacy against mixed infections of gastrointestinal parasites, including those with single or dual resistance to any of the three major drench families. Triple combinations have also been shown to significantly slow the development of drench resistance.



### **CONTAINS**

1 g/L abamectin, 40 g/L levamisole HCl, 22.7 g/L oxfendazole, 0.5 g/L selenium and 2.2 g/L cobalt.

#### **EFFICACY AND TRIPLE COMBINATIONS**

Triple combination products contain three anthelmintics with a similar spectrum of activity and different mechanisms of action. There are two main justifications for the use of such combinations: (1) to enable the effective control of nematodes in the presence of single or multiple drug resistance, and (2) to slow the development of resistance to the individual component anthelmintic classes. If co-administered actives have independent modes of action and mechanisms of resistance, worms that survive one treatment will be killed by the other. This means that combinations achieve higher efficacy against resistant parasite populations than do any of the individual component anthelmintics used alone, and fewer resistant parasites survive treatment. In order for this to be effective, we must ensure that there are adequate numbers of sensitive parasites in refugia in order to dilute the resistant genes.

#### **DOSAGE GUIDE - SHEEP**

BODY WEIGHT KG	DOSE mL	1 L TREATS	5 L TREATS	10 L TREATS	20 L TREATS
21-25	5	200	1000	2000	4000
26-30	6	166	833	1666	3333
31-35	7	142	714	1428	2857
36-40	8	125	625	1250	2500
41-45	9	111	555	1111	2222
46-50	10	100	500	1000	2000
51-55	11	90	454	909	1818
56-60	12	83	416	833	1666
61-65	13	76	384	769	1538
66-70	14	71	357	714	1428
71-75	15	66	333	666	1333

For sheep over 75 kg bw dose at 1 mL/5 kg. 1 mL/5 kg body weight delivering 0.2 mg/kg abamectin, 8 mg/kg levamisole HCl, 4.5 mg/kg oxfendazole, 0.1 mg/kg selenium and 0.44 mg/kg cobalt.

#### **MATRIX® - THE TRUSTED TRIPLE SINCE 2005**

A triple combination product is a convenient way of drenching with 3 different actives without having to drench 3 separate times. The effectiveness of the triple drench should be equal to the effectiveness of the 3 separate actives drenched separately. When MATRIX Hi-Mineral was registered in NZ in 2005, the regulator was provided with studies that showed all 3 of the main actives were individually safe and effective when combined in the product. Which is what you would expect with registration of the pioneer triple active sheep drench in NZ. MATRIX Hi-Mineral remains the most popular triple active mineralised oral drench for sheep in the NZ market today. MATRIX Hi-Mineral is made here in New Zealand for New Zealand sheep farmers.



