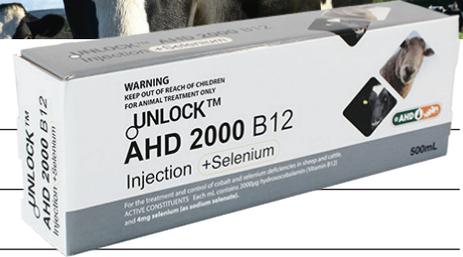




Name:	Unlock B12 2000 + Selenium injection
Category:	Dietary Support
Pack Size:	500ml
Use:	For the prevention and treatment of vitamin B12 (cobalt) and selenium deficiencies in sheep and cattle
Status:	OTC/Vet
Ingredients:	Hydroxocobalamin (as acetate) 2000µg/mL Selenium (as sodium selenate) 4mg/mL
Indications:	<p>Cobalt is an essential component of vitamin B12 (cyanocobalamin) which in ruminants is synthesised by microorganisms in the rumen. Under conditions of adequate dietary cobalt, microbial synthesis of vitamin B12 is usually sufficient to meet the animal's requirements. Vitamin B12 deficiencies occurs in animals grazing pastures with low cobalt content. Inadequate cobalt content of pastures may be related to a primary soil cobalt deficiency or various factors which reduce cobalt intake by plants. Seasonal variations in pasture cobalt content occur and deficiency is commonly associated with rapid spring pasture growth. Vitamin B12 has an essential role in ruminants as co-enzymes involved in the energy-producing pathway, gluconeogenesis. Propionic acid, a major product of carbohydrate metabolism in the rumen is converted to glucose in the liver via a B12-containing enzyme. This conversion is critical in ruminants as they absorb little dietary glucose and are therefore dependent on gluconeogenesis for glucose production.</p> <p>Vitamin B12 also acts as a co-enzyme in the formation of DNA, so is essential for cell maturation, division and growth. Deficiencies of vitamin B12 result in a general depression of cellular development and growth. Normal red blood cell production involves particularly rapid cellular growth and proliferation, thus adequate amounts of vitamin B12 are vital for this process.</p>
Action:	<p>Vitamin B12 has an essential role in ruminants as a co-enzyme involved in the energy-producing pathway, gluconeogenesis. Propionic acid, a major product of carbohydrate fermentation in the rumen, is converted to glucose in the liver via a B12 – containing co-enzyme. This conversion is critical in ruminants, as they absorb little dietary glucose and are therefore dependent on gluconeogenesis for glucose production.</p> <p>Vitamin B12 also acts as a co- enzyme in the formation of DNA, so essential for cell maturation, division and growth. Deficiencies of vitamin B12 result in a general depression of cellular development and tissue growth. Normal red blood cell production involves particularly rapid cellular growth and proliferation, thus adequate amounts of vitamin B12 are vital for this purpose.</p>



Administration:	<p>Do not use unless selenium deficiency has been diagnosed.</p> <p>By subcutaneous or intramuscular injection. Injection to be given into the anterior half of the neck.</p> <p>Repeat as directed by veterinary surgeon. Frequency of dosing should be related to the severity of the deficiency.</p> <p>Do not use at the same time as any other selenised fertiliser, prill or product without consulting with a veterinarian. Do not exceed the stated dose or dose more frequently than 3-weekly.</p>
Withholding periods	Nil.
Dosage:	<p>Lambs: 0.5mL at tailing or weaning</p> <p>Adult Sheep: 1-1.5mL pre-lambing</p> <p>Calves: 2.3mL from 2 months of age</p> <p>Adult Cattle: 4-6mL pre-calving</p>
Special Precautions:	Do not use at the same time as any other selenised fertiliser, prill or product without consulting with a veterinarian. Do not exceed the stated dose or dose more frequently than 3-weekly.
Storage:	<p>DISPOSE of empty container by wrapping with paper and putting it in the garbage.</p> <p>STORE below 25°C (air conditioning). Protect from light. Once vial is broached use contents within 6 months or discard.</p> <p>KEEP OUT OF REACH OF CHILDREN</p>
Registration:	<p>Registered pursuant to the ACVM Act 1997 No A011785.</p> <p>See www.foodsafety.govt.nz for registration conditions</p>