

# *It's Back!*

**EUREKA GOLD**<sup>TM</sup><sub>OP</sub>

**SPRAY-ON**

**OFF-SHEARS SHEEP LICE TREATMENT**



Technical Manual

Fast, effective lice control  
for sheep



**COOPERS**

## INTRODUCTION

**EUREKA GOLD™** is an off-shears spray-on backline lice treatment indicated for the control of organophosphate (OP) susceptible and synthetic pyrethroid (SP) resistant strains of the sheep body louse (*Bovicola ovis*).

Eureka Gold is manufactured in Australia and marketed by Coopers® Animal Health, a supplier of lice control products to Australian farmers for over 120 years.

Eureka Gold combines the proven effectiveness of diazinon for rapid knockdown of lice with the convenience of an off-shears application.



## ROTATE TO EUREKA GOLD

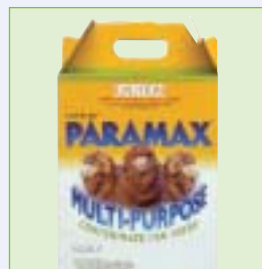
Over the last decade, farmers have relied primarily on backliner Insect Growth Regulators (IGRs) for effective lice control. This has been due mainly to the convenience that applying backliners offer over saturation dipping and the widespread distribution of synthetic pyrethroid resistant lice throughout Australia.

To help prolong the useful life of currently available lice control treatments, it is important that consideration be given to rotating between effective chemical groups to reduce the rate of resistance development.

The use of Eureka Gold in a rotational lice control programme not only provides the farmer with a convenient, high volume, rapid knockdown application, but will also aim to extend the effective life of other lousicide chemical groups.

Eureka Gold allows an Organophosphate (OP) to be introduced into the rotation without the need to dip the sheep.

Treatment	Off-Shears Application	Convenient Application	Rapid Knockdown	Controls SP Resistant Lice
Eureka Gold	✓	✓	✓	✓
Insect Growth Regulator Pour-Ons	✓	✓	X	✓
Synthetic Pyrethroid Pour-Ons	✓	✓	✓	X
Insect Growth Regulator Dips	X	X	X	✓
Organophosphate Dips	X	X	✓	✓



## COOPERS LICE CONTROL PRODUCT RANGE

Coopers Animal Health have an extensive range of sheep lice control products including off-shears backliners, short wool saturation dips and long wool treatments. The addition of Eureka Gold to our range offers another effective lice control option for sheep farmers.

The following table outlines the Coopers Lice Control Product range. For further information on these products, and advice on lice control in your flock, please contact your local reseller, Coopers Representative or Coopers Customer Service Toll Free on 1800 226 511.

	Organo-phosphate	Insect Growth Regulator	Synthetic Pyrethroid	Macrocytic Lactone
Off- Shears Backliner	Eureka Gold	Magnum®	Clout-S®	
Short Wool Saturation Dip	Di-Jet®, Coopers 4 in 1	Strike®		
Long Wool Hand-Jetting		Strike		Paramax® Multi-Purpose Concentrate
Long Wool Spray-On Backliner		Magnum	Vanquish®	



## EFFICACY OF EUREKA GOLD

Eureka Gold has been extensively trialled and used on sheep throughout Australia. Coopers are very pleased to bring this highly effective product back to the Australian market.

### Trial 1 (Trial No. OZ 9208-21). Location Bannockburn, Victoria <sup>1</sup>

In this study, merino wethers with lice were shorn and divided into two groups. One group was treated with Eureka Gold, and the others were left untreated. The two groups were kept separate for the duration of the trial. Lice counts were conducted immediately after treatment and then at regular intervals over the next 183 days (26 weeks). Sheep treated with Eureka Gold were free of lice 14 days after treatment, and remained lice free for the duration of the trial.

Group	Pre-Shear	Post-Shear	14 DAT*	28 DAT	35 DAT	43 DAT	85 DAT	140 DAT	183 DAT
Untreated Control	204	113.4	102.4	92.2	92.4	107	150	226.4	264.4
Eureka Gold	208	104.4	0	0	0	0	0	0	0
% Reduction			100	100	100	100	100	100	100

\*DAT = Days after treatment



### Trial 2 (Trial No. OZ 9208-23). Location Daysdale, NSW <sup>1</sup>

In this study, 208 merino weaners were shorn and treated with Eureka Gold. Within 24 hours, 37 mm of rain had fallen (25 mm on the night of treatment and 12 mm to 2 pm the following day). An additional 153 weaners and 478 merino wethers were shorn and treated over the following 4 days. Lice counts were conducted immediately after treatment and then over the next 188 days (27 weeks). Lice counts were conducted on 25 ear tagged sheep and 25 others selected at random and on 75 of sheep affected by rain, using the 20 partings per side technique. Sheep treated with Eureka Gold were free of lice 34 days after treatment, and remained lice free for the duration of the trial.



Eureka Gold	Pre-Shear	Post-Shear	34 DAT*	98 DAT	153 DAT	188 DAT
25 Ear Tagged	214	145.7	0	0	0	0
25 Others			0	0	0	0
% Reduction			100	100	100	100

\*DAT = Days after treatment

### Summary of Field Trials <sup>1</sup>

A number of field trials have been conducted with Eureka Gold. The product has been used on many different classes of stock – including ewes, weaners and wethers. Sheep have also been treated at different times of the year. Overall, these results show that Eureka Gold is highly effective at controlling lice on sheep.

Trial Report No.	No. of sheep	Class	Month trial commenced	% reduction in lice numbers – weeks after treatment					
				5	8-9	12-14	15-17	19-23	27-29
OZ 9208-23	361	Merino weaners	May	100	100	100	100	100	100
	478	Mixed age Merino wethers							
OZ 9108-22	575	1 y.o. mixed sex Merinos	November	100	100	100	100	100	100
	367	2 y.o. mixed sex Merinos							
	149	Merino lambs							
OZ 9108-18	159	Merino weaners	November	100	100	100	100	100	100
	113	1 y.o. Merino ewes							
	601	2-5 y.o. Merino ewes							
OZ 9208-24	28	2 y.o. wethers	July	100	100	100	100	100	100
	480	5-7 y.o. Merino ewes							
	180	Pregnant Merino ewes							
	203	3 y.o. ewes							
OZ 9208-25	318	2 y.o. wethers	August	100	100	100	100	100	100
	984	Mixed sex Merino hoggets							



## HOW TO USE EUREKA GOLD

### Mixing

Eureka Gold is supplied as a concentrate which must be diluted with clean water prior to use. Mix 1 part of Eureka Gold to 6 parts of water. The diluted product must be used within 3 days of mixing. A scourable yellow dye is incorporated into the product to identify treated sheep.

Eureka Gold Sheep Lice Treatment (Litres)	Clean Water (Litres)	Ready-to-use Diluted Product (Litres)	Number of 50 kg Sheep Treated
1	6	7	46
5	30	35	233
10	60	70	466
20	120	140	933

### Dose Rate

Once diluted, Eureka Gold is applied at the rate of 3 mL/kg bodyweight. Determine the correct dose by weighing the heavier animals in the mob and dose according to the heaviest bodyweight within each animal class.

Animal Pest	Bodyweight (kg)	Dose Rate (mL)
Sheep Body	6 – 10	30
Louse ( <i>Bovicola ovis</i> )	11 – 20	60
	21 – 30	90
	31 – 40	120
	41 – 50	150
	51 – 60	180
	61 – 70	210
	71 – 75	225

Sheep in excess of 75 kg bodyweight to be dosed at 3 mL per kg



### Application

Eureka Gold is applied using the Genesis 150 mL Eureka Gold Power Doser™ within 24 hours of shearing. This applicator delivers the high volume dose required, quickly and accurately, whilst ensuring optimum body coverage. Once applied, up to 6 weeks are required for Eureka Gold to kill lice on treated sheep.

Eureka Gold is applied in a wide band from the poll, along the backline, to the butt of the tail.

**Note:** The applicator will deliver up to 150 mL, so for sheep greater than 50 kg who require more than 150 mL, split the dose: applying the first dose head to the middle of the back, and the second dose from the middle of the back to the tail.

To ensure successful lice control following the use of Eureka Gold, it is important to observe the following:

- Eureka Gold must only be used within 24 hours after shearing
- Eureka Gold is not to be used to treat ewes less than 6 weeks before lambing commences, as live lice can persist and infect the lambs
- Eureka Gold is not to be used to treat lambing ewes or ewes with lambs at foot
- Eureka Gold treated sheep must not be mixed with untreated sheep
- Eureka Gold is not to be used on sheep which have not been cleanly shorn
- Eureka Gold is not to be used on animals that are severely stressed or are in poor health





## WITHHOLDING PERIODS

<b>MEAT</b>	21 days
<b>MILK</b>	DO NOT USE on sheep which are producing or may produce milk for human consumption or processing
<b>WOOL</b>	DO NOT USE less than 2 months before shearing or fibre collection
<b>EXPORT SLAUGHTER INTERVAL</b>	21 days



## WHAT HAPPENS IF IT RAINS AFTER TREATMENT

In field trials with Eureka Gold, moderate rainfall on the day of treatment did not reduce the efficacy of Eureka Gold. Coopers are confident that the efficacy of Eureka Gold will not be compromised by rainfall up to 37 mm within 24 hours of treatment.



## PACKAGING

Eureka Gold is available in a 20 L drum.



## OCCUPATIONAL HEALTH & SAFETY

Organophosphates have 'anticholinesterase' activity and they interfere with certain enzymes in the nervous system of lice. They can also be poisonous to humans and animals. Eureka Gold is poisonous if swallowed and will irritate the eyes and skin.

To minimise operator exposure, it is recommended that during mixing and when using the spray the following Personal Protective Equipment is worn:

- Cotton overalls buttoned to the neck and wrist
- A washable hat
- Elbow length PVC gloves
- Water resistant footwear

If clothing becomes contaminated with product, remove clothing immediately. If product gets on the skin, immediately wash the area with soap and water. After use and before eating, drinking or smoking, wash hands, arms and face thoroughly with soap and water. After each day's use, wash gloves and contaminated clothing.

The spray-on application of Eureka Gold minimises exposure of operators, stock and the environment to the product. To avoid operator contact with Eureka Gold when concurrent treatments are carried out, apply Eureka Gold last.

Eureka Gold offers a wide margin of safety on treated stock with sheep treated at up to 6 times the recommended label rate showing no signs of toxicity or skin reactions following treatment. In addition, in all pen and field trials, not one single animal demonstrated any abnormal symptoms following treatment.



## FIRST AID

If poisoning occurs, contact a Doctor or Poisons Information Centre (Phone 131126). If swallowed, give one atropine tablet (0.6 mg) every 5 minutes until dryness of the mouth occurs – if poisoned by skin absorption or through the lungs, remove any contaminated clothing, wash skin thoroughly and give atropine tablets as above. Get to a doctor or hospital quickly.

For further information, refer to the Material Safety Data Sheet.



## STORAGE

Eureka Gold is a scheduled poison (S6) and should be stored below 30°C (Room Temperature). Store in original container, tightly closed in a dry place away from food, drink, domestic items and animals.



## DISPOSAL

The Eureka Gold drum can be recycled if it is clean, dry, free of visible residues and has the *drumMUSTER* logo visible. Triple or pressure rinse the Eureka Gold drum for disposal. Dispose of rinsate or any undiluted chemical according to State legislative requirements. Wash outside of the container and the cap. Store cleaned container in a sheltered place with cap removed. It will then be acceptable for recycling at any *drumMUSTER* collection or similar container management program site. The cap should not be replaced but may be taken separately.



## Eureka Gold OP Spray-On Off-Shears Sheep Lice Treatment

FEATURES	BENEFITS TO AUSTRALIAN WOOL PRODUCERS
<b>Convenient Off-Shears Application</b>	Sheep can be treated on the day of shearing No need to re-muster stock for treatment Minimal labour requirements Low capital outlay
<b>Contains Diazinon</b>	Proven effectiveness against the sheep biting louse ( <i>Bovicola ovis</i> ) Effective against lice resistant to Synthetic Pyrethroids
<b>Rapid Knockdown</b>	Eureka Gold kills lice, relieving sheep from the irritation of lice soon after treatment



# COOPERS

## COOPERS ANIMAL HEALTH

(A division of Schering-Plough Pty Ltd)

For further information on EUREKA GOLD or any other Coopers products, please contact your local Coopers Animal Health representative or contact Coopers Animal Health Customer Service on

**Toll Free 1800 226 511**

Monday to Friday, 8.30am - 5.00pm

Please, visit our website at

**[www.coopersanimalhealth.com.au](http://www.coopersanimalhealth.com.au)**

1 SPAH Data on file

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