

## Facial Eczema Zinc Dose Rates

Treatment with zinc to prevent eczema should already have started, as liver damage from eczema spores is cumulative, and even low spore numbers can start to sensitise animals, especially if they have had previous liver damage. The options for zinc treatment of cows are as follows:

**Zinc Oxide** - Long term oral dosing gives the best protection (80-90%) against FE. Every second day dosing is possible in dairy cows, however as zinc can interfere with calcium absorption, less frequent dosing using higher rates can result in reduced production and milk fever. Young stock and dry cattle can be dosed at weekly intervals, but bear in mind this only gives 60-70% protection. Table 1 shows drench dose rates for stabilised zinc products mixed at the rate of 1kg to 1 litre of water. # *Dry cattle only*

Stock Type	Weight (kgs)	Long Term Dose intervals <i>Dose volume in mls</i>			Crisis dosing
		1 day	3 days	7 days <sup>#</sup>	1 day <i>Dose volume (mls)</i>
Cows	J 350	13	53	123	18
	JxF 400	14	60	140	20
	F 450	16	68	158	23
Heifers	J 290	10	44	102	15
	JxF 340	12	51	119	17
	F 380	14	57	133	19
Calves	J 130	5	20	46	7
	JxF 140	5	21	49	7
	F 160	6	24	56	8

**Zinc Sulphate** - In line dispensers, adding zinc to the tank supplying the water reticulation system, and floating in-trough dispensers are all effective means of water treatment. Direct addition of zinc sulphate to the water trough without using a dispenser is not recommended. Water treatment is only suitable for long term dosing NOT crisis dosing during danger periods. **You need to ensure that ALL stock on the property are included in your calculations, and that all stock are getting access to sufficient daily water intakes for this method to be effective.** Water treatment is not suitable where stock have access to alternative water sources such as streams or drains. Introduce zinc sulphate slowly over several weeks to allow stock to get used to the taste. The use of flavourants, especially apple based products, can enhance the intake of water and zinc during the summer.

Table 2: Zinc Sulphate Dose Rate (grams per day) required In drinking water

Weight (kgs)	Cows			Heifers (18-24mths)			Calves (6-9mths)		
	J	JxF	F	J	JxF	F	J	JxF	F
	<b>350</b>	<b>400</b>	<b>450</b>	<b>290</b>	<b>340</b>	<b>380</b>	<b>130</b>	<b>140</b>	<b>160</b>
<b>Monohydrate 5.5 grams/100kg lwt</b>	19	22	25	16	19	21	7	8	9
<b>Heptahydrate 8 grams/100kg lwt</b>	28	32	36	23	27	30	10	11	13