the perfect strategic fit







Efficient







A unique powerful tool in coccidiosis control

- Cygro®, 1% maduramicin ammonium, is a monovalent *glycoside* ionophore anticoccidial used for prevention of coccidiosis in broilers and turkeys
- it is the only BSA (brand specific approved) maduramicin feed additive available

Cygro

Perfect fit in rotation programmes

 a good anti-coccidial programme includes rotation between products with different modes of action. For this, synthetic anticoccidials and ionophores from various classes can be used;

MONOVALENT IONOPHORES

- salinomycin
- monensin
- narasin

DIVALENT IONOPHORES

lasalocid

MONOVALENT GLYCOSIDE IONOPHORES

- maduramicin (Cygro®)
- semduramicin

Due to its chemical structure, maduramicin shows a different selectivity for the monovalent cation pumps of oocyst walls compared to other ionophores.

Therefore alternating with Cygro® in a rotation or shuttle programme decreases the risk of development of resistance and helps maintaining an optimal efficacy of the next ionophore anticoccidial treatment.



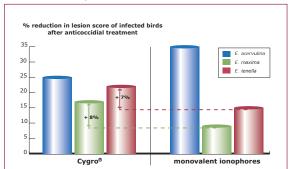
high selectivity	Cygro ® maduramicin	Monovalent ionophores	
	K +	Na +	
	Rb +	K +	
	Na +	Rb +	
1	Li +	Li +	
low selectivity	Cs +	Cs +	

Cygro® offers a powerful coccidiosis control with minimal cross resistance making it a perfect fit for rotation or shuttle programmes



An effective broadspectrum anticoccidial

Maduramicin's unique mode of action efficiently reduces the prevalence of *Eimeria* species, especially *E. maxima* and *E. tenella*, the economically most important ones.



Greater reduction of lesion score compared to other ionophore anticoccidials

(Based on results of 61 AST's*)

*AST= Anticoccidal Sensivity Test performed under high challenge conditions



Highly effective even in heat stress conditions

Cygro® stays highly effective under widely varied climatic conditions. During hot and dry weather, research results show that Cygro® reduces the heat stress in birds compared to several other anticoccidials.

Secure



Maximum flexibility

• Cygro® can be simultaneously used with other therapeutic agents in the feed

Treatment	Erythromycin	Tylosin	Sulfonamides	Chlortetracyclines
Cygro®		•••		

ref. -'Incompatibility studies with veterinary medical products", Internal BSA dossier Cygro® 1%

- -'The compatibility of the new ionophore coccidiostats with other chemotherapeutics in broilers', Lazay P. *et al.* Deutsch Tierarztliches Wochenschrift, October 1989
- -'Ionophore toxicity in chickens: a review of pathology and diagnosis', Dowling, 1992



Less risk of financial loss due to residues

- Cygro® is a dust free, free flowing and low electrostatic feed additive.
 The dust hazard to feedmill and farm-operators is minimal and ensures a homogeneous in-feed distribution
- The extent of carry-over of a feed additive depends among other things on these physico chemical characteristics of the active component. It is correlated with a 'relative wall adhesion factor' (RWF), a parameter that, if <1, assures you that the carry-over does not exceed maximum permitted levels so that undesirable and unacceptable residues are avoided. (according to GMP manufacturing standards).

The RWF for Cygro® of is 0,8* which makes it a safe feed additive to use (no extra flushing needed).

*ref. -Wall adhesion test, certificate of analysis, TNO (Netherlands Institute of applied scientific research) - Internal data, available on file



Security when accidentally fed to other species

• When a maduramicin medicated broiler/turkey feed (5ppm) is accidently fed to non target avian species it will have no detrimental effect

Species	Laying hen	Breeder hen	Guinea Fowl	Quail	Pheasant	Goose
Cygro®						

^{*}ref. N.G. Fowler, FRCVS, Department bacteriology, DVR, Anticoccidial Compendium, 1995



Cygro



Cygro Provides optimal coccidiosis control

Cygro Proven security profile for flexible use



The perfect fit ...







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