

POWERFUL PROTECTION

FROM COMPLEX ENTERIC DISEASE PROBLEMS



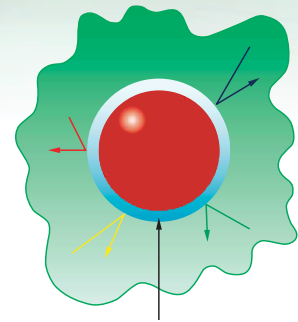
FEED COMPOUNDER INFORMATION SHEET

GOOD MIXING CHARACTERISTICS

ECONOR is formulated as 50% microgranules, wherein the spray dried valnemulin is coated with methylcellulose to give a stable, protected product designed to reduce dustiness and the risk of cross-contamination in the mill.

Particle size distribution is specified to ensure optimal distribution in feed and feed supplement matrices, thus enhancing the homogeneity of mixing. Because of the low inclusion rates required to achieve efficacy with ECONOR, 10% and 1% premixes have been formulated for the convenience of feed mills.

ECONOR 50% Coated Premix

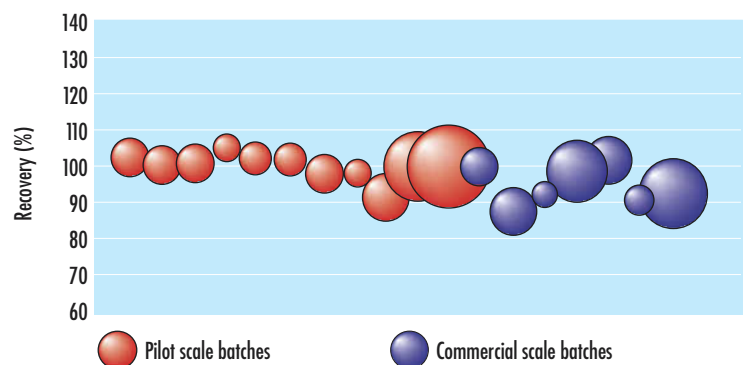


Methylcellulose coating

HOMOGENEITY OF MIXING

The homogeneity of ECONOR in 18 batches of pig feed was evaluated – 11 pilot batches and 7 batches produced on a commercial scale.

Recovery was excellent (mean value 98% overall and 95% in commercial batches) and as can be seen from the size of the spheres in the figure, which represents the range of the values found, consistency in recovery was also excellent.



THE ANTIBIOTIC PREMIX THAT'S 'IN STEP WITH TIME'

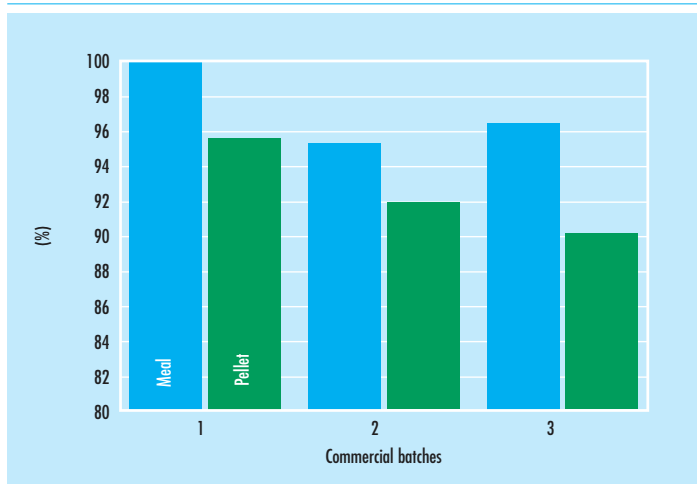


STABILITY IN PIG FEED

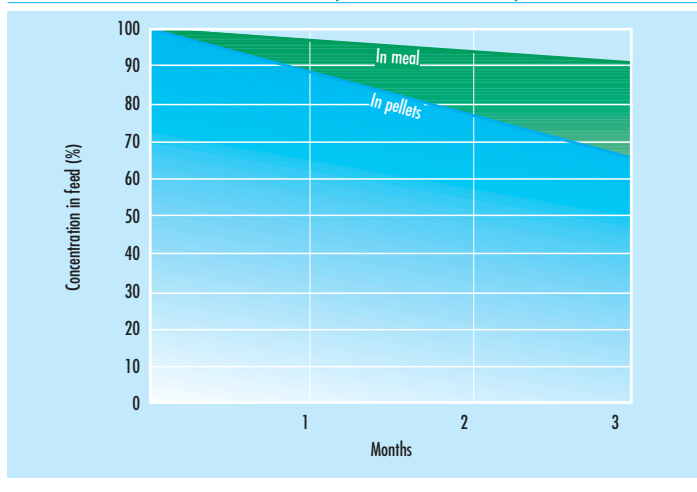
The pelleting process is vigorous, sometimes subjecting feed to high temperatures and pressure. It is therefore important to assess the impact of pelleting on recoveries in, and storability of, medicated feeds.

Feeds containing ECONOR can be confidently pelleted at temperatures up to 75°C; non-statistically significant losses on pelleting of around 5% being recorded. Thereafter incremental pelleting losses can occur. ECONOR is stable in meal for 3 months (degradation rate of 3.5%/month) and 3 weeks in pellets (11.2%/month).

EFFECT OF PELLETING (AT ≥75°C) ON RECOVERIES OF ECONOR IN PELLETED PIG FEED



STABILITY OF ECONOR IN PIG FEED (MEAL AND PELLETS)



INCLUSION LEVELS/DOSAGE RATES

Indication	Inclusion* level (g valnemulin/tonne of feed)	Target dosage (mg valnemulin/kg bodyweight)	ECONOR 1% premix (kg/tonne)	ECONOR 10% premix (kg/tonne)	ECONOR 50% premix (kg/tonne)
Prevention SD	25ppm	1-1.5	2.5	0.25	0.05
Treatment SD	75ppm	3-4	7.5	0.75	0.15
Prevention PCS	25ppm	1-1.5	2.5	0.25	0.05
Treatment PPE	75ppm	3-4	7.5	0.75	0.15

*The inclusion levels may need to be adjusted to achieve target dosage rates

The following calculation can be used to calculate dosage:

$$\frac{\text{Dosage required (mg/kg BW)} \times \text{BW (kg)}}{\text{Daily feed intake (kg)}} = \text{Valnemulin (mg/kg feed)}$$

Example:

$$\frac{3.75\text{mg/kg} \times 20\text{kg}}{1\text{kg}} = \text{Valnemulin } 75\text{mg/kg (ppm) in feed}$$

AT A GLANCE

ECONOR – The most potent antibiotic premix available today for the key enteric diseases found in grower and finishing pigs – Swine Dysentery, Ileitis, Colitis

IMPROVED STABILITY

Coated microgranular formulations for improved in-feed and storage stability

IN-FEED STABILITY

- Meal feed: 3 months (protect from light and moisture)
 - Pelleted feed: 3 weeks (protect from light and moisture)
- Econor has been shown to be stable to the pelleting process at temperatures up to 75°C

STORAGE STABILITY

- Premix: 3 years (store below 25°C; tightly close partially used container)

EXCELLENT MIXING CHARACTERISTICS

Coated microgranular formulations can also enhance mixing properties through:

- Excellent homogeneity of mixing
- Better flowability and consistent particle size
- Reduced dustiness
- Reduced risk of cross-contamination
- Reduced risk of losses through “blow-off” and “electrostatic charges”

ECONOR is available as 50%, 10% and 1% premix presentations for the convenience of feed mills

ECONOR is not related to antibiotics used in human medicine, unlike competitive products

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