

## FIVE TRIALS IN EU DEMONSTRATE EFFICACY OF ECONOR FOR ENZOOTIC PNEUMONIA CONTROL

**INTRODUCTION** Enzootic pneumonia, caused by the pathogen *Mycoplasma hyopneumoniae*, remains a common and costly problem for pork producers worldwide. Although the disease seldom kills pigs, it causes significant illness, resulting in performance losses such as stunted growth and poor feed conversion. It frequently appears with other respiratory pathogens and is a major component of what many swine-disease specialists call the porcine respiratory disease complex.

In the laboratory, *M. hyo* has shown excellent sensitivity to valnemulin, the active ingredient in new-generation pleuromutilin, Econor<sup>®</sup>. To confirm the effectiveness of Econor in the field, five controlled trials in two EU countries were initiated.

### Trial Design

The trials were conducted on farms with a history of enzootic pneumonia, which usually manifests as a mild chronic infection. Four of the trials were conducted on farms in the United Kingdom and one trial was conducted in Germany.<sup>1</sup> A total of 546 pigs were in the five trials

Pigs were weighed and randomly assigned to pens with pigs of similar weight. Alternate pens received either Econor at a rate of 10 mg/kg/day or a placebo premix for 3 weeks.

In the first four trials, food was offered ad lib, and the amounts given were recorded weekly. In the fifth trial, feed was offered twice daily.

The pigs were weighed weekly and their clinical condition was assessed every 2 or 3 days. They

were treated on an individual basis, if necessary. Pigs also were examined for lung lesions after the end of the 3-week medication period.

### Results

In the first four trials, average daily gain in pigs treated with Econor was from 5.9% to 13.5% more than in unmedicated controls. In the fifth trial, three pigs had clinical signs and weight loss that were attributed to stress-susceptibility.

In the four trials showing improvements in weight gain, pigs treated with Econor showed feed conversion improvements ranging from 4.7% to 18.5% over unmedicated controls.

Lung lesion scores among Econor-treated pigs in all five trials were reduced from 13.6% to 44%, compared to controls. The mean lung lesion score from all five trials was 34.4% better in medicated pigs than in controls.

*Researchers' observations:* "... [Econor] consistently reduced lung lesions due to porcine enzootic pneumonia infections, increased weight

**Ulrich Klein**  
Dr.med.vet  
Professional Services Manager



## KEY POINTS

- > Weight gain in Econor-treated pigs improved by as much as 13.5% compared to controls.
- > The feed conversion ratio improved by as much as 18.5% in Econor-treated pigs compared to controls.
- > Econor consistently reduced lung lesions due to enzootic pneumonia.

Table 1  
Weight Gain and Food Conversion Ratio

Trial	No. of pigs per group	Average daily gain in controls (g)	Improvement in Econor group (%)	Feed conversion ratio in controls	Improvement in Econor group (%)	Mean Lung score in controls	Improvement in Econor group (%)
1	60	690	5.9	2.79	4.7	23.5	13.6
2	69	636	6.0	3.16	6.0	9.05	42.6
3	36	709	8.7	2.7	18.5	1.8	33.3
4	62.63	773	13.5	2.86	6.4	16.8	38.7
5	27.28	723	1.7	N/A	N/A	*	44.0

N/A = Not available  
\* = Not comparable method of scoring

gain and improved [the feed conversion ratio] by reduction of the depressant effect on growth and feed conversion caused by the disease.”

**SUMMARY** The disease challenge in these trials was severe because the stocking density was high and pigs shared the same air space. Nevertheless, pigs treated with Econor not only showed reduced lung lesions, they also demonstrated an increased growth rate and feed con-

version ratio, indicating that Econor minimized the major adverse effects of enzootic pneumonia.

For more information on this study, please contact your local Novartis Animal Health representative or Dr. Ulrich Klein at [Ulrich.klein@ah.novartis.com](mailto:Ulrich.klein@ah.novartis.com).

## REFERENCES

<sup>1</sup> Ripley PH. Field trials of Econor for the control of porcine enzootic pneumonia. *The 15th International Pig Veterinary Society Congress*. 1998.