Effect of origanum vulgaris and allium sativum extracts for the control of proliferative enteropathy in weaning pigs

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Abstract

The aim of the present trial was to investigate the efficacy of Virbamix PE® (Virbac SA, France) an appetite enhancer and feed flavouring material containing plant extracts of *Origanum vulgaris* and *Allium sativum*, added to the feed at a single dose of 1kg Virbamix PE® per tonne of feed, in comparison to reference treatment with tiamulin (Tiamutine® 6.5 Premix / Ceva Animal Health) group and a negative control group. The trial was conducted on a farm with a previous history of ileitis outbreaks. At weaning day (25 ± 3 days old / day 0 of the trial) a total of 288 (144 male + 144 female) piglets were selected and allocated into three experimental groups, each group comprising of four pens with 24 piglets in each pen. Group 1 (T1 group) served as negative control group (unmedicated), group T2 received medication in feed at the dose of 1kg Virbamix PE® per tonne of feed and T3 group received 32 ppm of tiamulin. Treatments lasted for six weeks (up to the age of 67 ± 3 days), and no other antibacterial or growth promoter was added to the feed or drinking water in the same period.

Administration of Virbamix PE® was found to be effective for the control of PE, as shown by the reduction of prevalence of *Lawsonia intracellularis* in the intestine at the end of the treatment period, as determined by PCR method comparatively with the T1 group, while no significant difference was found between T2 and T3 groups. The diarrhoea score (DS) was significantly higher (P < 0.05) in the control group in comparison with T2 and T3 groups. However, no significant differences were noticed between T2 and T3 groups during the treatment period (P > 0.05). Treatment of piglets with Virbamix PE® and Tiamutine® 6.5 Premix resulted in significantly higher body weight and average daily gain (ADG) than in T1 group for the total treatment period (P < 0.05). Conclusively, the results of present study indicate that the use of Virbamix PE®, could be an alternative and economic method for the control of PE. Moreover, the use of this product is in accordance with the contemporary consumer demands for more environmentally friendly pig production, satisfying at the same time the producer needs for increased and cost-effective performance.

Key words: *Origanum vulgaris*, proliferative enteropathy, piglets

Original article

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Abstract

The aim of the present trial was to investigate the efficacy of Virbamix PE® (Virbac SA, France) an appetite enhancer and feed flavouring material containing plant extracts of *Origanum vulgaris* and *Allium sativum*, added to the feed at one single dose in the control of proliferative enteropathy (PE) in weaning pigs, in comparison to reference treatment with tiamulin (Tiamutine® 6.5 Premix / Ceva Animal Health) group and a negative control group. The trial was conducted on a farm with a previous history of ileitis outbreaks. At weaning day (25 ± 3 days old / day 0 of the trial) a total of 288 (144 male + 144 female) piglets were selected and allocated into three experimental groups, each group comprising of four pens with 24 piglets in each pen. Group 1 (T1 group) served as negative control group (unmedicated), group T2 received medication in feed at the dose of 1kg Virbamix PE® per tonne of feed and T3 group received 32 ppm of tiamulin. Treatments lasted for six weeks (up to the age of 67 ± 3 days), and no other antibacterial or growth promoter was added to the feed or drinking water in the same period.

Administration of Virbamix PE® was found to be effective for the control of PE, as shown by the reduction of prevalence of *Lawsonia intracellularis* in the intestine at the end of the treatment period, as determined by PCR method comparatively with the T1 group, while no significant difference was found between T2 and T3 groups. The diarrhoea score (DS) was significantly higher (P < 0.05) in the control group in comparison with T2 and T3 groups. However, no significant differences were noticed between T2 and T3 groups during the treatment period (P > 0.05). Treatment of piglets with Virbamix PE® and Tiamutine® 6.5 Premix resulted in significantly higher body weight and average daily gain (ADG) than in T1 group for the total treatment period (P < 0.05). Conclusively, the results of present study indicate that the use of Virbamix PE®, could be an alternative and economic method for the control of PE. Moreover, the use of this product is in accordance with the contemporary consumer demands for more environmentally friendly pig production, satisfying at the same time the producer needs for increased and cost-effective performance.

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