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M201 Evaluation of the efficacy of a commercial purified phylosilicate to reduce the estrogenic effects of zearalenona in gilts.

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An experiment was conducted to study the efficacy of a very low inclusion of commercial purified phylosilicate (**MYCOAD AZ**) in preventing the deleterious estrogenic effects of zearalenona (ZEA) in prepubertal gilts. Eighteen 20-d old recently weaned Yorkshire Cross gilts individually housed were randomly distributed into 3 dietary treatments with 6 replications each. After a 4-d petrial adaptation period, pigs were fed a commercial basal diet containing or exceeding NRC recommended nutrients levels for 30 d. The feed was experimentally contaminated with crystalline ZEA, determined to be over 99% pure. Treatments were: (1) control basal diet; (2) control + 750 ppb ZEA; and (3) control + 750 ppb ZEA + 1 kg/mt **MYCOAD AZ**. At the end of the experiment all pigs were sacrificed and the internal reproductive organs weighed. Results indicated no significant differences in body weight (wt) gain, feed intake and feed conversion ratio among treatments. Gilts fed 750 ppb ZEA contaminated diet showed significant heavier ovary + bursa wt (40%), uterus wt (93%), cervix wt (260%) and total reproductive organs wt (98%) than gilts fed the control diet. The addition of **MYCOAD AZ** to the contaminated diet resulted in gilts with a statistically significant reduction in ovary + bursa wt (12%), uterus wt (25%), cervix wt (32%) and total reproductive organs wt (24%) than those fed 750 ppb ZEA. Even though the addition of 1 kg/mt of **MYCOAD AZ** to a gilt diet contaminated with 2 to 3 times the ZEA level producing problems in the field did reduce the abnormal growth of the reproductive organs; they were still heavier than those from gilts fed the control diet. These results indicate that **MYCOAD AZ** at 1 kg/mt was effective in reducing the estrogenic effects of ZEA in prepubertal gilts.

Key words: MYCOAD AZ, zearalenona, gilts