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EFFECT OF SARCOPTIC MANGE TREATMENT ON**GROWTH PERFORMANCE OF PIGS****E. Wooten-Saadi¹, A.B. Broce²,****and J.L. Nelssen**

Summary

Growth performance of 135 sarcoptic mange mite-infested pigs (8 pens of 15-20 pigs each) was evaluated for an 8-week period during June-August, 1985. Pigs in 6 pens were treated with the acaricide TAKTIC EC³, whereas two pens were maintained as nontreated controls. Results indicated that although treatment for sarcoptic mange was effective, it did not improve average daily gains in TAKTIC EC-treated pigs.

Introduction

The swine sarcoptic mite is an ectoparasite that is difficult to control because it resides under the skin of the pig and is considered to exist in most swine herds unless special eradication procedures have been used. Reports on effects of sarcoptic mange on growth performance of swine are conflicting. Some indicate that sarcoptic mange decreases growth performance in heavily infested animals. There are few pigs in a herd that are heavily, chronically infested unless animals are not properly fed and treated. Most healthy pigs are physiologically capable of maintaining low populations of sarcoptic mange mites. There is some indication that certain levels of sarcoptic mange in swine may not inflict economic damage. The purpose of this study was to determine the effect of sarcoptic mange in naturally infested pigs on growth performance under field conditions.

Procedures

A total of 135, 3- to 4-month old pigs from a purebred swine unit in northcentral Kansas were used for an 8-week evaluation of sarcoptic mange on growth performance during June - August, 1985. Most of the pigs were exhibiting clinical signs of sarcoptic mange, such as pruritis and reddening of the skin. Skin scrapings in June, 1985 indicated that 4/18 (22%) of the animals were infested with sarcoptic mange mites. All animals were weighed and allotted randomly by weight to 8 Cargill-type units with 15 to 20 pigs per pen. Boars were housed separately

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³Active Ingredient, Amitraz, Nor Am Chemical Co., Wilmington, Delaware.

from barrows and gilts to prevent bullying by boars. Pigs were fed a milo-soybean meal (16% crude protein) diet ad libitum until maturity (220 lbs). Pigs in six pens were treated twice (with a week between treatments) with TAKTIC EC and two pens were maintained as nontreated controls. The TAKTIC EC was applied with a HUSKY-G sprayer (150-175 psi), at the rate of 1 quart of solution per animal. Average daily gains (ADG) were monitored and skin scrapings were taken biweekly during the 8-week observation period.

Results and Discussion

During the 8-week observation period after treatment with TAKTIC EC, 4/26 (15.4%) of the randomly selected, nontreated pigs and only 1/39 (2.5%) of the TAKTIC EC-treated pigs sampled were infested with sarcoptic mange mites (Table 1). Average daily gain for the 8-week observation period were not different ($P>0.10$) for the TAKTIC EC-treated pigs (1.78 lbs/day \pm 0.74) and the nontreated pigs (1.86 lbs/day \pm 0.80). These results indicated that treatment for sarcoptic mange did not improve ADG in these pigs. Protein levels were higher in the diet of these breeding animals (16% protein) than in the typical growing-finishing diet (12-14% protein). The higher level of nutrition and seasonally lower numbers of infested animals during the observation period (summer months) may have influenced our results. However, the treatment method is similar to one used by producers and did not improved ADG (as previously reported in other reports) in treated pigs under our test conditions. These results and the controversy concerning the economic losses incurred by the sarcoptic mange mite substantiate the need for further evaluation of the economic impact of this pest.

Table 1. Total Number of Sarcoptic Mites and Eggs in Skin Scrapings and Number of Animals Infested in TAKTIC EC-Treated and Nontreated Pigs during Field Evaluation (June-August, 1985).^a

| Date | Nontreated | | | TAKTIC EC-Treated | | |
|-----------|------------|-------|---------------|-------------------|-------|---------------|
| | #adults | #eggs | #positive (%) | #adults | #eggs | #positive (%) |
| June 17 | 2 | 0 | 2/4 (50) | 90 | 9 | 2/14 (14.2) |
| July 5 | 6 | 1 | 1/5 (20) | 0 | 0 | 0/7 (0) |
| July 24 | 260 | 143 | 1/6 (16.6) | 0 | 0 | 0/6 (0) |
| August 8 | 1 | 0 | 1/6 (16.6) | 1 | 0 | 1/12 (8.3) |
| August 14 | 1 | 0 | 1/9 (11.1) | 0 | 0 | 0/14 (0) |

^aDates of TAKTIC EC application: June 19 and June 26.