Preventive Practices in Swine: Parasite Treatment

Swine parasites cost producers money. Therefore, almost all swine operations have some type of disease prevention program, which often includes treatment for parasites. Two types of parasites infect pigs: internal parasites, primarily worms; and external parasites, such as lice and mange. Internal parasites are commonly treated with products administered in water, feed, or by injection. External parasites are treated via sprays, dips, pour-ons, and products administered by injection or in feed. Swine are treated for parasites in all stages of the production cycle.

Internal parasites

Over two-thirds (69.7 percent) of sites in the Swine 2000 study utilized some type of deworming program. Sows and gilts were the most common type of swine to be dewormed. During the period from December 1, 1999, through May 31, 2000, sows and gilts were dewormed on 83.0 percent of sites. The study indicated that boars were dewormed on 76.8 percent of sites that had boars. Pigs from weaning to market age (including both nursery-age and grower/finisher pigs) were dewormed on 56.3 percent of sites, which accounted for 28.4 percent of pigs from weaning to market age. Although 31.8 percent of sites with piglets dewormed them before or at weaning, this accounted for just 13.7 percent of all piglets.

Producers reported roundworms present on 19.6 percent of sites that had grower/finisher pigs; 18.0 percent of sites with nursery-age pigs; and 21.2 percent of sites that had any weaned pigs. The majority (76.8 percent) of sites where weaned market pigs had some outside access routinely dewormed, whereas only 44.6 percent of sites with strictly indoor facilities did so. Roundworms were a reported problem in weaned pigs on more operations in the west central region of the U.S. than any other region. Over 60 percent of sites in the east central and west central regions of the U.S. dewormed weaned pigs (Figure 1).

More small sites (23.9 percent) considered roundworms a problem in weaned pigs than medium (10.0 percent) or large (12.0 percent) sites. Likewise, more small sites (62.7 percent) dewormed weaned pigs compared to medium (27.0 percent) or large (8.4 percent) sites. The study indicated that only 73.3 percent of sites that considered roundworms a problem in either their grower/finisher or nursery pigs dewormed their weaned pigs.

Among the different methods of treating grower/finisher pigs for internal parasites, the most common route was via feed, followed by injection, and in water (Table 1). Fendbendazole was the most common dewormer given to...
grower/finisher pigs in feed; ivermectin was the most common injectable product used; and levamisole was the most common dewormer given in water. Some type of dewormer was given to grower/finisher pigs on 54.4 percent of sites with grower/finisher pigs.

Table 1. Percent Sites that Gave Specified Dewormers to Grower/Finisher Pigs Via Feed, Injection, or Water, by Type of Dewormer Given

<table>
<thead>
<tr>
<th>Product</th>
<th>Feed</th>
<th>Injection</th>
<th>Water</th>
<th>Any Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fenbendazole</td>
<td>27.8</td>
<td>N/A</td>
<td>N/A</td>
<td>27.8</td>
</tr>
<tr>
<td>Ivermectin</td>
<td>8.8</td>
<td>12.0</td>
<td>N/A</td>
<td>19.0</td>
</tr>
<tr>
<td>Levamisole</td>
<td>0.7</td>
<td>1.2</td>
<td>5.1</td>
<td>6.6</td>
</tr>
<tr>
<td>Any Dewormer</td>
<td>39.7</td>
<td>15.6</td>
<td>6.2</td>
<td>54.4</td>
</tr>
</tbody>
</table>

N/A = Not Applicable

Large sites were less likely to administer dewormers to grower/finisher pigs than small sites, regardless of method of administration (Table 2).

More small sites (43.4 percent) treated weaned pigs for mange or lice than medium (9.5 percent) or large (4.9 percent) sites. Fewer sites in the southern region of the U.S. treated weaned pigs for mange or lice (18.1 percent) than in any other region (40.2, 40.1, and 34.0 percent of sites in the west central, east central and northern regions, respectively).

Weaned pigs were treated for mange or lice on only 30.6 percent of sites where grower/finisher pigs had no outside access, compared to 52.2 percent of sites where grower/finisher pigs had outside access. Similarly, weaned pigs were treated for mange or lice on only 43.0 percent of sites where nursery pigs had no outside access, compared to 63.0 percent of sites where nursery pigs had outside access. Chemical-use information for controlling external parasites and other pests was collected in conjunction with the National Agricultural Statistics Service (NASS). NASS provides estimates of on-farm use of insecticides for controlling mange, mites, lice, flies, and other pests. The NASS report may be found at www.usda.gov/nass. The active ingredients used on swine most commonly include: Piperonyl butoxide, Amitraz, and Malathion, which accounted for 75 percent of the total pounds of active ingredients applied to swine.

All operations should examine swine periodically for internal and external parasites by using fecal egg counts to determine the presence of adult worms, or slaughter checks to determine the presence of migrating worm larvae in the liver as well as any skin damage caused by mites.

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