Insecticide and Acaricide Test

MEDICAL AND VETERINARY

(continued)

Company no or name | Classification | Company no or name | Classification
--- | --- | --- | ---
Ethion | IV | Stauffer 18258 | III
Fisons NC 12285 | IV | Stauffer R-2179. | IV
Hercules 13462 | IV | Stauffer R-26375. | III
Hoechst HR-8142 | IV | Stirofos | III
Malathion | IV | Union Carbide UC-41305 | II
Mexacarb | III | |

STIROFOS FEED ADDITIVE FOR HOUSE FLY AND STABLE FLY CONTROL IN HORSE FECES, 1976: Five mature horses, averaging ca 272 kg, were preconditioned for 7 days prior to administration daily of 8.8 g/animal of a 7.76% Stirofos (Rabon) premix (Code SD 8447 10-37-68-1 PMH) in a commercial preparation of horse and mule feed containing ground corn, bran, alfalfa pellets, and molasses. Treatment was initiated August 10 and terminated August 23, 1976. Prairie hay and water were fed ad libitum. Three additional animals served as controls. All animals were maintained as a group except during 24-hr manure collection periods on treatment days 7 and 14 at which time they were individually isolated in concrete floored pens to minimize manure contamination with dirt and/or litter. Sufficient distilled water was added to each 24-hr collection to approximate 80% moisture content. Twenty-five newly hatched 1st instar house fly and stable fly larvae of a susceptible strain were transferred to 200-g aliquots of respective samples. Three replicates of each sample were performed. Samples were held at 27°C and monitored for adult emergence.

Stirofos was completely effective as an equine feed additive against house fly and stable fly larvae at the dosage level evaluated.

<table>
<thead>
<tr>
<th>Days posttreatment</th>
<th>Control</th>
<th>Crotoxyphos/Pyrethrin/Repellent</th>
<th>Super Swat</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>23</td>
<td>19</td>
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<td>15</td>
<td>16</td>
</tr>
<tr>
<td>96</td>
<td>17</td>
<td>18</td>
<td>16</td>
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</tbody>
</table>

Mean number flies per animal

CROTOXYPHOS/PYRETHRIN/REPELLENT SPRAY FORMULATION FOR EQUINE HOUSE FLY AND STABLE FLY CONTROL, 1976:

Fifteen mature horses, averaging ca 272 kg, were randomly assigned to individually isolated untreated control, treated control and experimental groups, respectively. All animals were maintained on a commercial preparation of horse and mule feed containing ground corn, bran, alfalfa pellets, and molasses. Prairie hay and water were supplied ad libitum. Experimental animals were lightly sprayed at a rate of ca 60 ml/head with a 1:7 aqueous solution of an emulsifiable concentrate formulation consisting of 2.30% crotoxyphos (Ciodrin) insecticide/1.20% pyrethrins and 2.40% piperonyl butoxide/40.00% butoxy polypropylene glycol (Stabilene fly repellent) and 4.00% pyrocide intermediates 5192 (Code SD 4294 5-11-12-1 ECH). Treated controls were also lightly sprayed at the rate of ca 60 ml/head with an undiluted solution of commercially available Super Swan fly repellent. House fly and stable counts were made on each animal 24 and 48 hr prior to treatment at ca 1:00 p.m. Treated horses were sprayed on August 13, 1976 at 9:00 a.m. Subsequent house fly and stable fly evaluations were conducted on each animal 1, 3, 6, 24, 48, 72, and 96 hr posttreatment.

Crotoxyphos/pyrethrin/repellent spray formulation and Super Swat fly repellent both presented effective house fly control up to 48 hr posttreatment. Stable fly control was more difficult to evaluate due to the relatively low population; however, neither treatment appeared effective beyond 24 hr posttreatment.