WHAT DO YOU NEED TO KNOW ABOUT FLIES??

The Horn Fly
Small Pest.....Huge PROBLEM

The horn fly costs the beef industry over $1 billion per year and is North America’s most pervasive and costly external cattle parasite.¹

What is your fly control strategy?

**Fly Species**

**House Fly**
- **Stable Fly**
- **Face Fly**
- **Horn Fly**

**Protect Your Herd Against Horn Flies.**

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**Horn Fly**  (*Haematobia irritans*)

Most common fly on pastured cattle

- Small, black fly – 4mm long
- Both sexes are blood feeders
  - Take blood meals 30-40 times per day
- Remain on cattle day and night
- Live 10-20 days
- Lays eggs in fresh manure (less than 5 minutes old)
- Mate on animals
- 400-500 Eggs laid per female Horn Fly

**Protect Your Herd Against Horn Flies.**

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**Horn Flies – Strong Biters **NOT** Fliers**

- Horn flies are not strong fliers
  - Flight distance of ¼ to ½ mile per day is difficult
  - It is against their nature to “jump” between herds

Horn fly infestations can be effectively controlled, even if your neighbors do nothing

**Protect Your Herd Against Horn Flies.**
Horn Fly – *Haematobia irritans*

- The horn fly has an efficient cutting and digging mechanism, delivering a painful bite to its host.

Where do Flies Lay Their Eggs and Their Respective Flying Strength?

<table>
<thead>
<tr>
<th></th>
<th>Manure</th>
<th>Compost</th>
<th>Flying Strength</th>
</tr>
</thead>
<tbody>
<tr>
<td>Horn Fly</td>
<td>Yes</td>
<td>No</td>
<td>+</td>
</tr>
<tr>
<td>Face Fly</td>
<td>Yes</td>
<td>No</td>
<td>+++</td>
</tr>
<tr>
<td>Stable Fly</td>
<td>Yes</td>
<td>Yes</td>
<td>++++</td>
</tr>
<tr>
<td>House Fly</td>
<td>Yes- not fresh</td>
<td>Yes</td>
<td>++++</td>
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</tbody>
</table>

WHAT ARE THE MAJOR PROBLEMS CAUSED BY THE HORN FLY??????

Impacts Weaning Weights in Calves

- Horn Flies can impact calf weaning weights
- Altosid IGR can help increase weaning weights by 20.2* Lbs.

Oklahoma State University Research

- Research in 2011 By Dr. Justin Talley revealed that cattle fed Altosid® IGR gained 15.8% more weight than the control group fed no fly control solution.
- The group fed Altosid® IGR gained .33lb more weight per day over the length of the trial
- Overall this group gained 27.97 more lbs. as compared to the control group.

Impacts Weights Gain of Yearlings

- Horn Flies can impact weight gain in yearlings
- Altosid IGR can help increase weight gain in yearlings by 33.6* Lbs.
Research Observations

<table>
<thead>
<tr>
<th># of horn flies per animal</th>
<th>0</th>
<th>100</th>
<th>500</th>
</tr>
</thead>
<tbody>
<tr>
<td>Heart Rate per Minute</td>
<td>76.6</td>
<td>89.1</td>
<td>101.1</td>
</tr>
<tr>
<td>Rectal Temperature (c)</td>
<td>38.8</td>
<td>39.0</td>
<td>39.1</td>
</tr>
<tr>
<td>Water Intake, liter / day</td>
<td>16.7</td>
<td>16.3</td>
<td>24.9*</td>
</tr>
<tr>
<td>Urine Output, liter / day</td>
<td>3.8</td>
<td>4.2</td>
<td>12.1*</td>
</tr>
<tr>
<td>Nitrogen Intake, grams / day</td>
<td>119.1</td>
<td>119.0</td>
<td>119.1</td>
</tr>
<tr>
<td>Fecal Loss</td>
<td>30.9</td>
<td>34.5</td>
<td>34.8</td>
</tr>
<tr>
<td>Urine Loss</td>
<td>24.6</td>
<td>31.1</td>
<td>34.7*</td>
</tr>
<tr>
<td>Retained</td>
<td>63.6</td>
<td>50.2</td>
<td>49.5*</td>
</tr>
</tbody>
</table>

Horn Flies- Vectors for Disease

- Flies can help spread:
  - Pink Eye
  - Mastitis Bacteria
  - Staph Aureus Bacteria
  - Anaplasmosis Bacteria
- Flies are known to help vector up to 65 diseases among animals

>75% of heifers have mastitis before calving
  - Dr. Stephen Nickerson – University of Georgia
Incidents of Blind Quarters by Teat Location

WHAT IS ALTOSID???

The Product of Choice for Horn Fly CONTROL

• Altosid® IGR—Feed Thru Fly Control
  – S-Methoprene
  – Part of a Integrated Pest Management Program
  – Formulated in mineral, blocks, tubs, supplements
  – Proven effective in numerous university trials
  – No documented cases of resistance
    • On the market since 1975

– Low dose – only requires 1.13 mg / cwt
How Altosid® IGR Works

Adult horn flies live 2 to 4 weeks, taking 30 to 40 blood meals per day. Altosid® IGR is ingested with cattle’s mineral or feed. As they graze, cattle disperse IGR via their manure. Female flies leave the animal for a few seconds to lay eggs in fresh manure less than five minutes old. In 1 to 2 days, eggs hatch into larvae. Altosid® IGR breaks the life cycle here, preventing pupae from molting into adults.

What should your customers expect to see???
Control Vs. Eradication

- Economic Threshold
- 200 Horn Flies per head (beef)

Average Horn Fly Counts - Texas

Cattle on liquid feed including Altosid® 1% Liquid, experienced fly populations below the economic threshold after week 4

Average Horn Fly Counts - North Carolina

Cattle being fed mineral blocks including Altosid® IGR experienced fly populations below the economic threshold after week 4
Is It Working???

Good Control

Poor Control

Is it Safe??---Effective, Low Risk Chemistry

- Comparative Acute Toxicities (larger value = least toxicity)

Dichlorvos 80
Caffeine 355
Pyrethrins 1500
Salicylic Acid 1600
Sodium Chloride (table salt) 3000
Resmethrin 4240
Methoprene >34,560

Altosid® IGR – Not Harmful to Dung

Dung beetles can remove up to 1 ton of wet manure per acre
Less manure = less horn fly breeding ground.
Altosid® IGR – Not Harmful to Dung Beetles

**Fresh Cow Pat**

**13 Hours Later**

Dung beetles can remove up to 1 ton of wet manure per acre
Less manure = less horn fly breeding ground.

**Protect Your Herd Against Horn Flies.**

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When should you start feeding Altosid®?

- Start feeding early in the spring, 30 days before flies begin to appear

**Protect Your Herd Against Horn Flies.**

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When should you stop feeding Altosid®?

- Continue feeding until 30 days after the first hard killing frost in your area

**Protect Your Herd Against Horn Flies.**
Does it Pay???
Cost versus Return
Mineral for 200 Days at .25 lb./hd/day = 50 lb. bag

$ /bag with Altosid
$ /bag without Altosid

Returns By Controlling Horn Flies
- Improved Milk Quality
- Reduced Stress
- Reduced Blood Loss
- Improved Grazing
- Improved Body Condition Scores
- Improved Weaning Weights
- Reduced Stress
- Increased Grazing

$40.00 Improvement in production gains per cow

Other Frequently Asked Questions about Altosid IGR
- No VFD Requirement
- No Meat Withdrawal
- No Milk Withdrawal
Keys to Best Performance/Results with Altosid IGR
---Start Early
---Monitor Consumption/Intake
---Realistic Expectations---Have the discussion up front
---Daily Intakes---Don’t let the cattle run out of mineral for a week

---Include other IPM Products and Management Practices
---Back Rubbers
---Dusters
---Tags
---Sprays
---Baits
---Traps

Thank You
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