

ON THE RANCH

Cow/Calf Management Field Day

June 17, 2017
Dodge/West Point Area
Tour & Visit Cow/Calf
Confinement Barns,
Rotational Grazing
Practices, and tour
Aronia Berry Shrubs
and visit about Winery

Field Day is Free
RSVP is appreciated
for meal planning

Call 402-372-6006 to
register and directions.

Invited guests:
Bruce Anderson,
Extension Forage
Specialist,
Rick Stowell,
Extension Animal
Environmental
Engineer

Managing Horn Flies

By Dave Boxler, Nebraska Extension Educator – Livestock Entomology

With summer grazing season almost here, now is the time to prepare a horn fly management plan. Developing an effective plan requires some knowledge about the fly's habits, life cycle, economic impact, and available control strategies.

United States livestock producers lose over \$1 billion annually to the horn fly, making it one of the most damaging ectoparasites of pastured cattle. Horn fly feeding cause's dermal irritation, anemia, decreased feed intake leading to reduced weight gains, and diminished milk production. Horn flies have also been implicated in the spread of summer mastitis. Furthermore, an estimated \$60 million is spent annually on insecticidal control. Studies conducted in Nebraska have established calf weaning weights were 10-20 pounds higher when horn flies were controlled on mother cows. The horn fly also affects yearling cattle reducing yearling weights by much as 18 percent. The economic injury level (EIL) for horn flies is 200 flies per animal. An economic injury level is when the economic impact of the pest equals treatment costs. During the summer horn fly numbers on untreated Nebraska cattle can exceed several thousand.

Horn flies are small in size, approximately 3/16" in length and are usually found on backs, sides, and poll area of cattle. During a warm summer afternoon they can be found on the belly region of cattle. Horn flies, both male and female, acquire more than 30 blood meals per day. After mating the female fly will leave the animal to deposit eggs in fresh cattle manure. Eggs hatch within one week, and larvae feed and mature in the manure, pupating in the soil beneath the manure pat.

Newly emerged horn flies can travel several miles searching for a host. The entire life cycle can be completed in 10 to 20 days depending upon the weather.

Many insecticide control methods can manage horn flies; cattle backrubbers (oilers), dust bags, insecticide ear tags and strips, pour-ons, feed-through products, low pressure sprayers, mist blower sprayers, and the VetGun. Backrubbers (oilers) and dust bags can be an effective way to reduce horn fly numbers if cattle are forced to use them. If cattle are not forced to use them expect between 35 – 50 % less control. Insecticide ear tags and strips are a convenient method of horn fly control if applied at the correct time. In Nebraska, ear tags and strips should be applied during the last week of May or the first week in June to achieve maximum control through the fly season. Ear tags and strips applied too early will decrease in efficacy while fly numbers are still high, resulting in economic loss. In addition, adult animals should receive two tags; tagging only the calf will not provide the desired level of control. Animal sprays, mist blower applications, and pour-on products will provide 7 to 21 days of control and need to be re-applied through-out the fly season. Feed-through products, such as oral larvicides and insect growth



Photo courtesy of Dave Boxler.

regulators (IGR's), prevent fly larvae in manure pats from developing into adults. Steady consumption is necessary when using a feed-through product. Horn fly migration from neighboring untreated herds can mask the effectiveness of a feed-through. The VetGun applies an individual capsule of insecticide to an animal using a device similar to a paint ball gun, and can provide horn fly control for 21 to 35 days.

Many horn fly populations in Nebraska exhibit resistance to synthetic pyrethroid insecticides. To manage resistance be sure to alternate insecticide classes (insecticide ear tags, animal sprays, pour-ons, and feed-through products).

Insecticides have been placed into numbered insecticide Mode of Action (MOA) groups based on how they work against insects. Mode of action groups include organophosphates (Group 1B), pyrethroids and pyrethrins (Group 3), avermectins and milbemycins (Group 6), juvenile hormone analogues (Group 7A), and benzoylureas – chitin inhibitors (Group 15).

Continual use from a single MOA against a species can lead to reduced control (resistance to all products in the group). To improve control, do not apply insecticides within the same group number repeatedly. Rotate between MOA groups during the fly season. A list of delivery methods, labeled insecticides, and their MOA for horn fly control are found in Table 1.

Table 1. Horn fly delivery methods, labeled insecticides, and their mode of action (MOA).

	MOA		MOA
<u>Pour-ons</u>		<u>Backrubbers and Oilers</u>	
StandGuard 0.5%	3	Co-Ral 6.15%	1B
Saber	3	Ravap 23%+ 5.3% (R)	1B
Saber Ultra	3	Prolate/Lintox-HD 11.72%	1B
CyLence 1%	3	Permethrin 10% (many brands)	3
Permethrin (many brands)	3		
Clean-up	3 + 15	<u>Dust bags</u>	
Dectomax	6	Co-Ral 1%	1B
Eprenix	6	Rabon 3%	1B
Ivomec and Generics	6	PYthon 0.15%	3
Cydectin	6	Permethrin -0.25%	3
		Pyrethrins – PYGanic 1%	3
<u>Direct Animal Application</u>		<u>Feed-through (IGR)</u>	
Co-Ral 6.15%	1B	Altosid - IGR	7
Vapona 40.2% (R)	1B	Clarifly - IGR	15
Prolate/Lintox-HD 11.72%	1B	Rabon	1B
Rabon 50% WP	1B	Vigilante - bolus	15
Permethrin 10% (many brands)	3		
PyGanic 3%	3		
Evergreen EC60-6	3		
<u>Ear tags & Strips</u>		<u>Ear tags</u>	
Permethrin (many brands)	3	Corathon	1B
CyLence Ultra	3	Dominator	1B
Double Barrel VP	1B + 3	Optimizer, Terminator	1B
PYthon	3	Patriot	1B
PYthon MagnumM	3	Warrior	1B
Ultra Saber	3		
XP820	6		
<u>Compressed Air Application</u>			
Vet Gun, Aim capsule	3		

(R) – Restricted use pesticide, can only be purchased and used by a certified applicator.

When applying any insecticide control product, please read and follow label instructions.

AVOID POISONING LIVESTOCK WITH HEMLOCK

Bruce Anderson, Nebraska Extension Forage Specialist

Have you noticed tall weeds with umbrella-like white flowers in moist areas of pastures recently? It's probably hemlock, and it could poison your livestock.

Poison hemlock and its cousin, water hemlock, are two of the most poisonous of all flowering plants. We find them throughout our region, especially in wet or moist soils along streams, roadsides, and grasslands. The heavy, persistent rain this spring has made them abundant and especially vigorous this year.



Fortunately, hemlock usually is not palatable to most livestock. Animals won't eat much of it unless very hungry or if the plant has been altered in some way.

So how should this affect your management? It's critical that you avoid overgrazing pastures that contain hemlock. When adequate forage is available to graze, animals select healthy, palatable plants to eat and avoid the hemlock. But if grass gets short, even unpalatable poisonous plants might be eaten. This includes turning hungry animals into fresh pasture containing hemlock, since some hungry animals will eat the first green plant they come to when very hungry, palatable or not. Also make sure plenty of water, salt, and mineral always are available. Animals deprived of water or mineral may eat abnormally, increasing the risk of consuming some hemlock.

Do not try to control hemlock during the grazing season by clipping or spraying. I repeat – do not spray or clip hemlock during the grazing season. This alters the plant and actually can increase its palatability, making it more likely that animals will eat enough of it to cause poisoning.

The risk of poisoning animals with hemlock may be greater than normal this year. But, graze intelligently and losses can be avoided.

NEBRASKA GRAZING CONFERENCE

August 8 and 9 in Kearney

Jim Gerrish, internationally respected grazing expert and developer of the Management Intensive Grazing (MIG) method, will share his insights into fence and water development during his keynote presentation and informal evening workshop. Then Craig Derickson and Brad Soncksen from NRCS will describe cost share programs to help you pay for these improvements.

Livestock profits from grazinglands are increasingly hard to come by. Cattlemen John Maddux from Wauneta and Jim Jenkins from Calloway will describe ways they have adjusted their operations to find economic opportunities while Aaron Berger and Jay Parsons from Nebraska Extension will examine ways to control costs and risk. Nancy Peterson from Gordon will describe the many varied ways her family have used diversity and stewardship to build their cow herd and soil.

Peter Ballerstedt with Barenbrug USA will describe cool-season grasses to plant in new pastures as well as show how grass and cattle combine to form healthy human diets.

Wildlife thrive on well-managed grazinglands. Learn how this is being accomplished in Nebraska, South Dakota, and Oklahoma from Bill Vodehnal, Patricia Johnson, and Dwayne Elmore.

Learn how to look at weedy plants from a different perspective with Chris Helzer of The Nature Conservancy.

Conference information available on-line at <http://grassland.unl.edu/current-conference>.