



2025 Ranch Management Field Day

Wells Ranch • Gridley

Thursday, August 28 • 3:30 p.m.



Sponsored by:



Wells Ranch

Background

For more than 140 years, Wells Ranch has operated in northwest Woodson County. Since taking over in 1992, Terry Wells has continued the work his father started, making improvements to the ranch's working facilities and grassland health. Wells represents the fifth generation on the land and strives to ensure the ranch can continue operating for generations to come.

Wells Ranch currently custom grazes around 3,300 head of stocker cattle. Grazing occurs for approximately 90 days, with calves turned out in April and marketed in July. The ranch also provides custom backgrounding services and runs a commercial Angus-influenced cowherd. The cows are primarily spring-calving and are bred to either Angus or Charolais bulls. First- and second-calf heifers are bred to Angus sires while older females generally are turned out with Charolais bulls. Wells Ranch raises its own replacement females, and all females are Angus-sired. Charolais-sired calves and Angus-based females not selected to remain in the herd are backgrounded to 800 lbs. before being marketed. Additionally, the Wellses own and manage a handful of oil leases.

In 2018, Wells Ranch was recognized with the Coffey County Conservation District Grassland Award. Wells practices intensive grazing, aiming to get cattle off the grass early to promote rest and regrowth of a pasture.

Wells and his wife, Keturah, manage the operation alongside Wells' mother, who keeps the books. Wells also has three adult children and six grandchildren who visit often and help out as needed. Wells' son, Tate, plans to one day return home full-time and take over the family operation as the sixth generation.

Asian Longhorned Tick and Thileriosis

KLA/K-State Field Day

A.J. Tarpoff DVM, MS

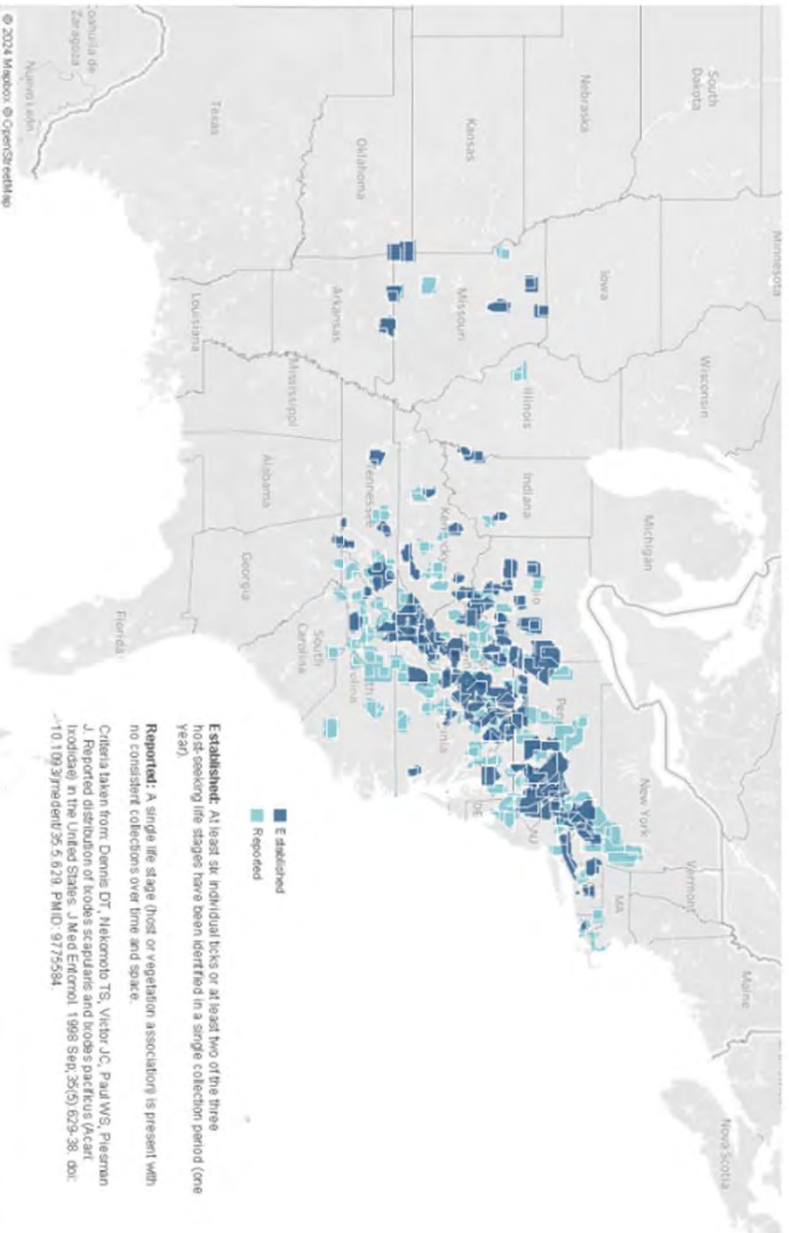
Beef Extension Veterinarian

Asian Longhorned Tick

- New introduction in the Western Hemisphere (Found it 2017 in USA)
 - East Coast of US
- Native to East Asia
- 20 states so far
 - Recently Close Cases: Iowa, Oklahoma

Asian Longhorned Tick

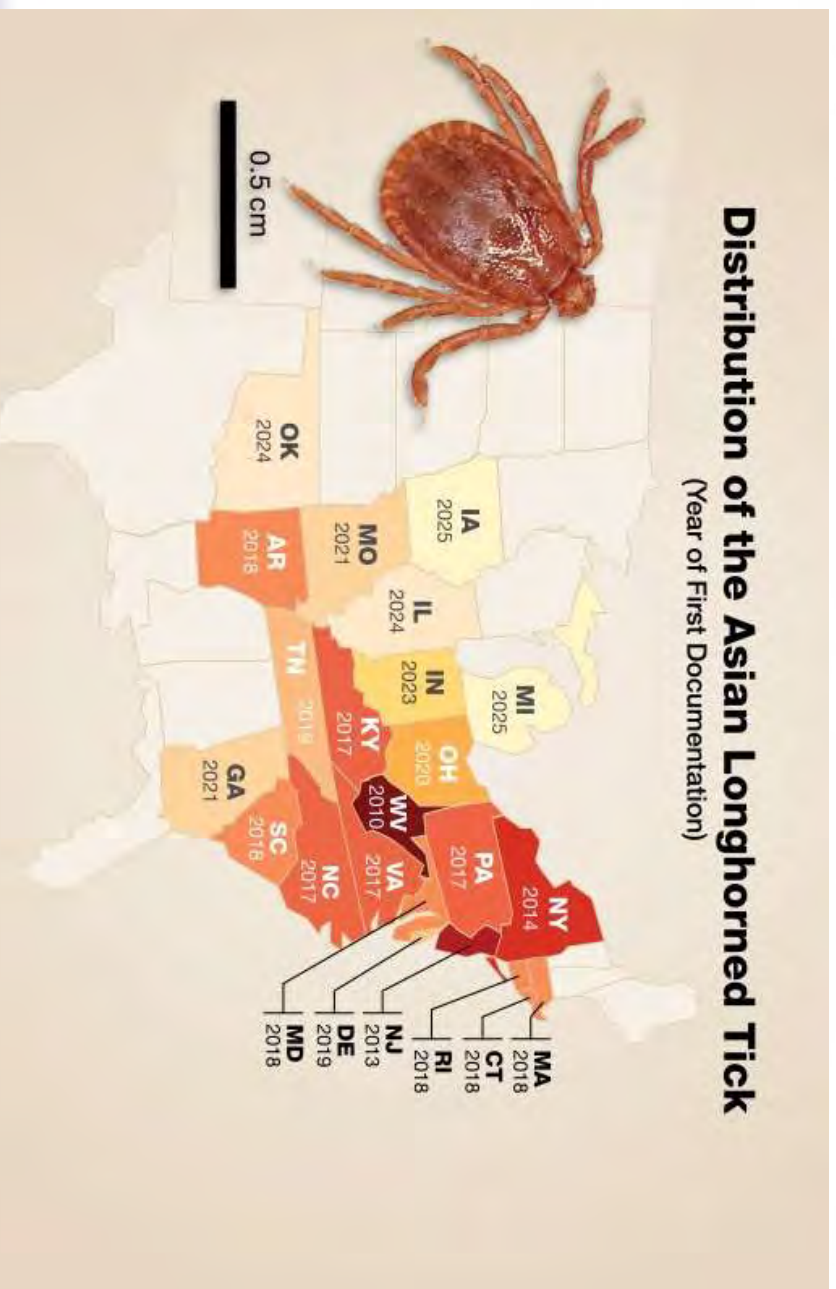
Counties with established Asian longhorned tick populations



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This was always a 'when' not 'if'



<https://www.drovers.com/news/beef-production/beef-producers-be-aware-dangerous-asian-longhorned-tick-continues-northern>



Larva



Nymph



Adult





15 ticks



12 ticks



Photo credit: Dan Goehl



Photo credit: Dan Goehl



Photo credit: Dan Goehl



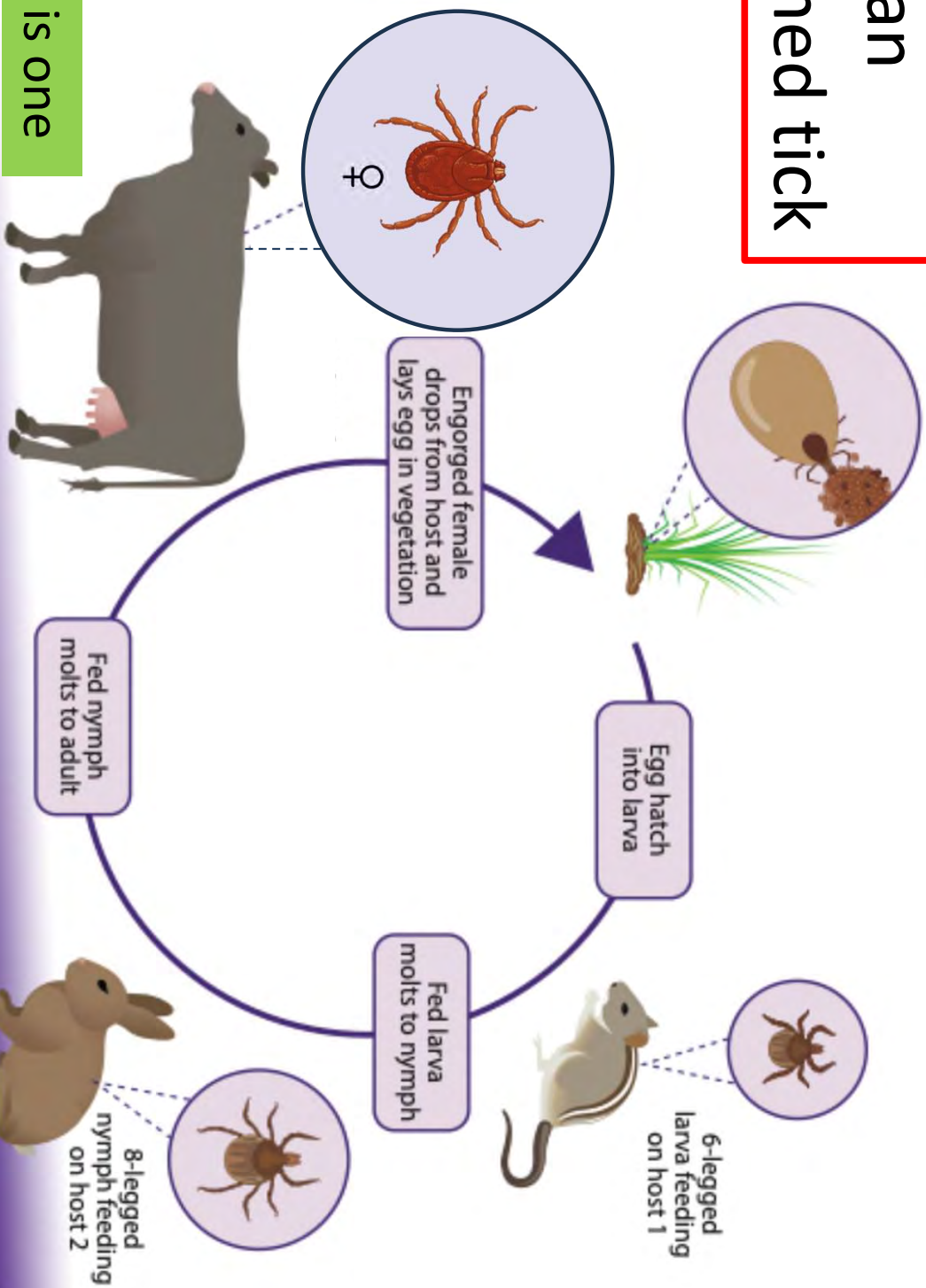
Photo credit: Dan Goehl



Lifecycle

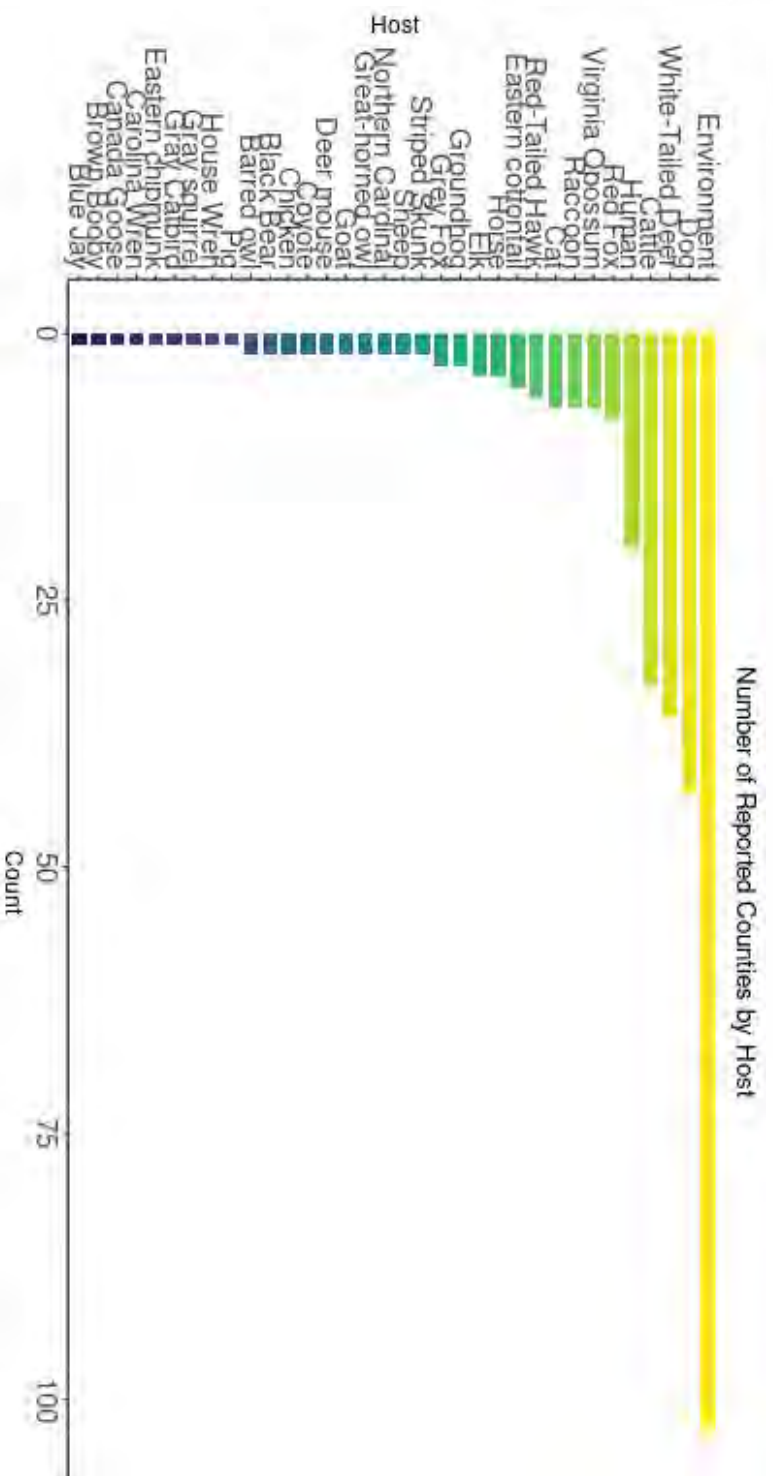
- Sexual or Asexual reproduction ability
 - Rapid spread potential
- Females can lay 2000+ eggs
- 4 host tick
 - Need a blood meal to develop through life stages
 - Mammals and birds
 - Feed for several days on hosts

Asian longhorned tick



All you need is one

Common Hosts



Impacts

- Direct Damage
- Blood loss
 - Potential anemia deaths in severe infestations
- ↓ Milk Production

Just another tick.... So what?

Vector Potential!!

Theileria orientalis

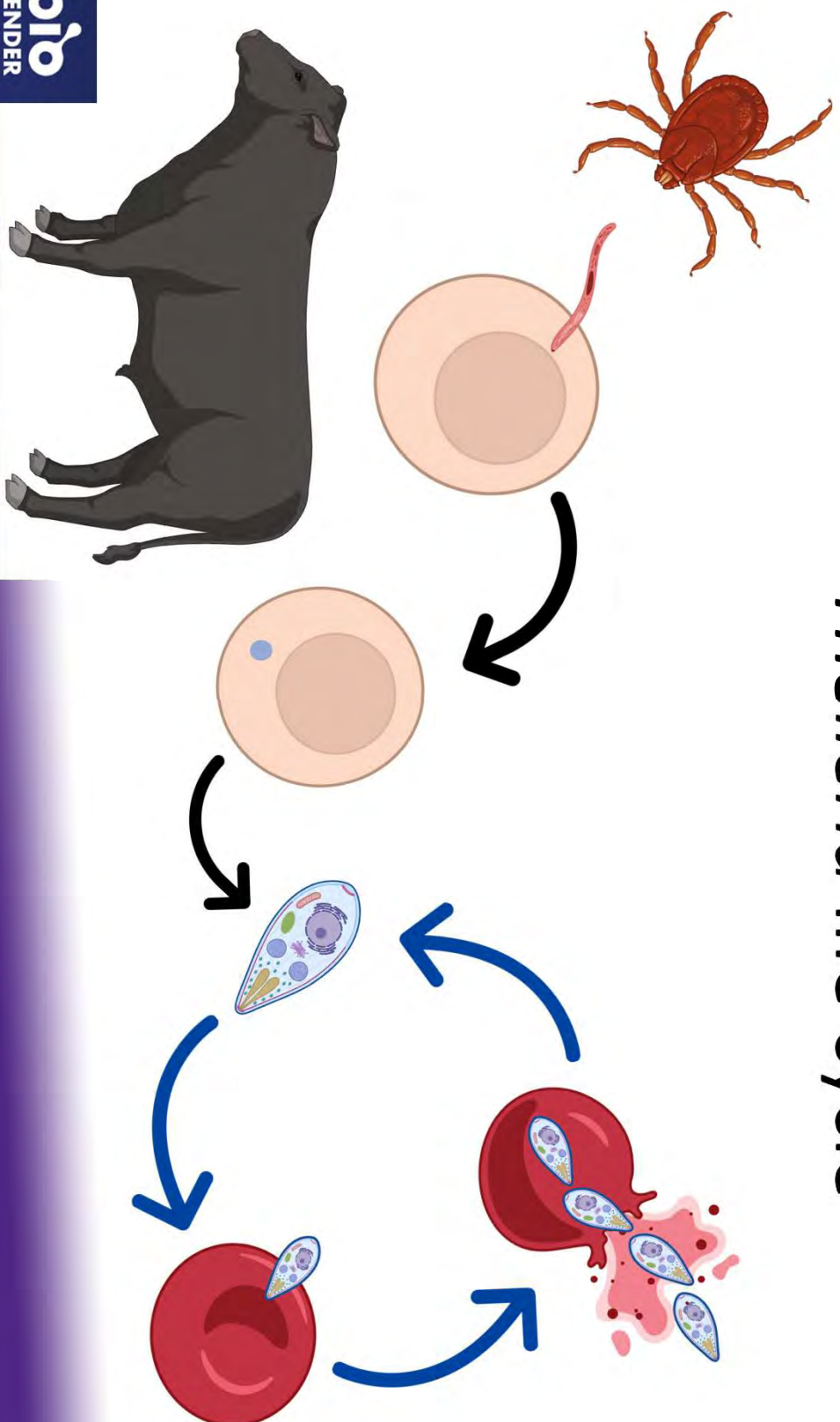
- Three genotypes
 - Chitose (type 1)
 - Ikeda (type 2) – most pathogenic
 - Buffeli (type 3)
- Once infected animals will remain chronic carriers
 - Relapses of disease can occur!

Theileria orientalis Ikeda

- Cases began in 2017 (Virginia)
- Blood borne protozoa (not bacteria) pathogen
- Longhorned Tick is a biologic vector
 - Needs this tick to complete reproduction
 - Can also be spread via needles or blood transfer
 - Enough mechanical transfer can spread disease

4 (ish) days*

Theileria life cycle



Outbreak Theileriosis symptoms

Most common disease symptoms and severity may change as you move from outbreak to endemic stability

- **Fever**
- **Loss of appetite and weight loss**
- **Lethargy**
- **Anemia**
- Difficulty breathing, coughing, nasal discharge (head may hang down)
- Yellowing membranes
- Abortions
- Sudden deaths

- vs. anaplasmosis
- No aggression
 - Different age susceptibility

Theileria impacts?

- Strain dependent (Ikeda)
- Severe clinical signs and death in up to 5% of cattle
- New Zealand 2014 outbreak
 - Estimated \$400 loss per dairy cow

Morbidity and mortality

Mortality rates range (5-20%)

- Highest mortality when pathogen first introduced (outbreak)
- Can have relapse of disease (often during high stress or immune compromising events)
- High risk animals
 - Young – under 6 months
 - Pregnant animals
 - Stressed animals (bulls running with cows)
 - Any naïve animal moving into an area with previous outbreaks

Treatment options

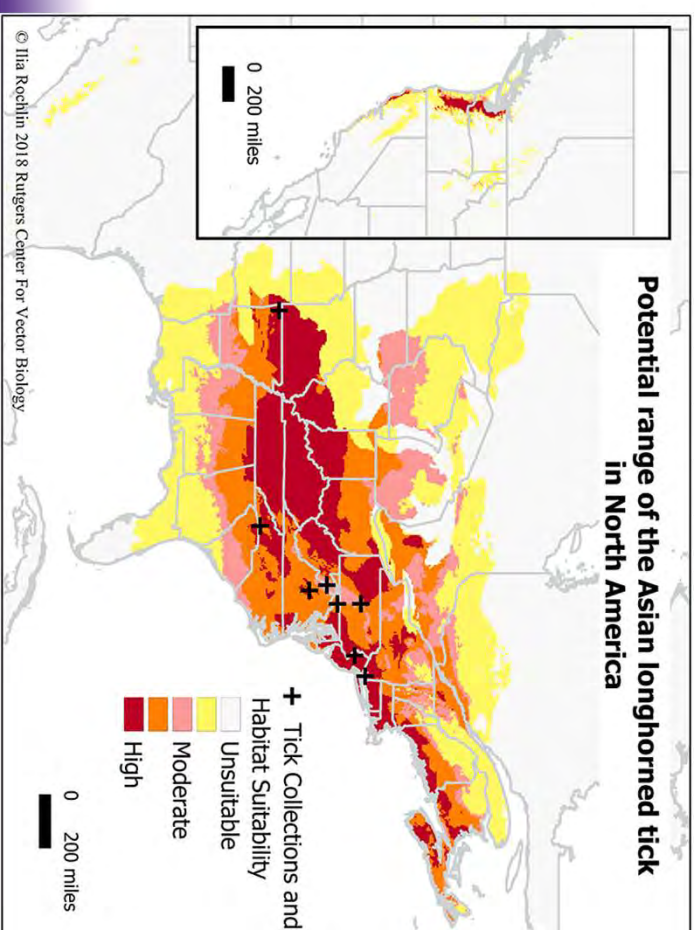
- No licensed anti-theilerial treatment in the US
- Co-infection with Anaplasz will negatively impact outcome
 - Stay vigilant on Anaplasmosis treatment (injectable oxytetracycline)
- **Tick Treatment/Control*******

Theileria Spread

- Incubation is 1-3 weeks
- Spreads **rapidly**
 - Up to 80% of herd exposed in just a month
- Become long term carriers after exposure
- **After initial rapid spread, minimal long-term issues**

What about Kansas?

- We have had several *Theileria* cases over the years
 - All in animals imported from Eastern US
 - We didn't have a competent vector
- Potential ALT Range
 - Eastern KS

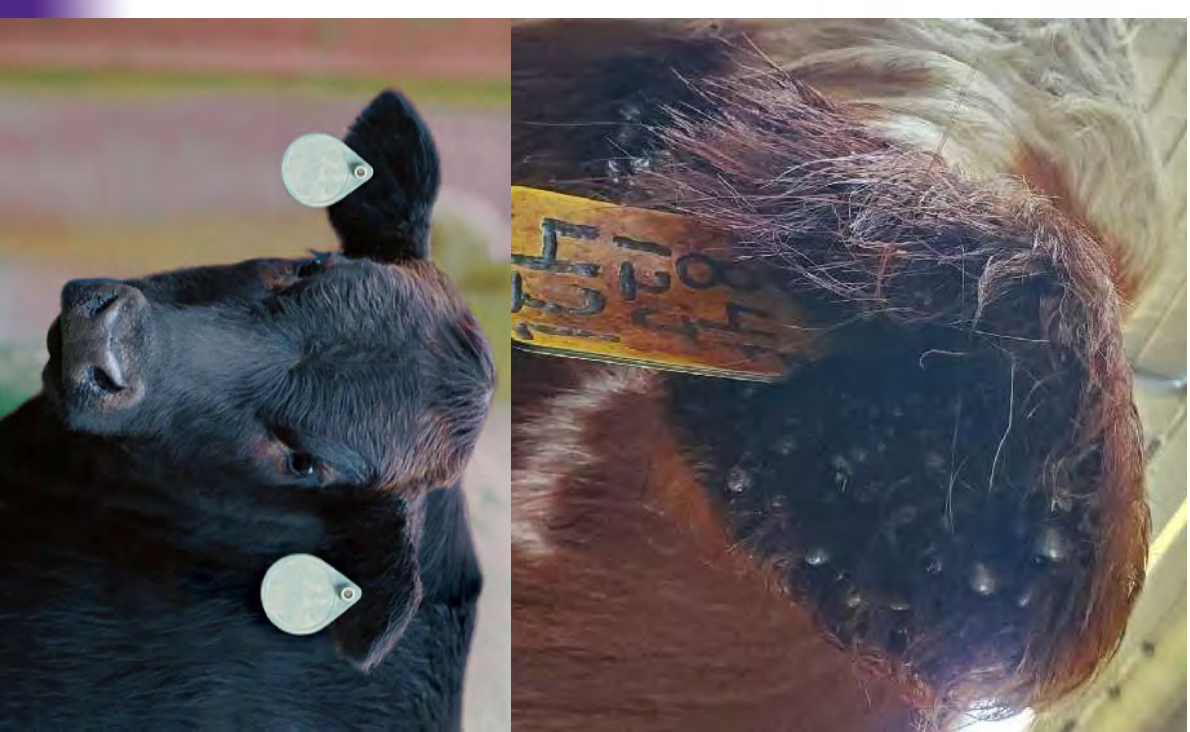


How do we control if/when it arrives?

- Tick control
 - On animal
 - Check cattle regularly, use more than one intervention
 - Ear Tags, Sprays, Pour-ons, back rubs
 - Vaccine???
 - Doesn't kill ticks, but develop antibodies against a tick gut protein which reduces feeding capability
 - USDA funded study: Currently being investigated 2026 completion?
 - Off animal
 - Remove tick habitat! Brush, **Cedar Trees** etc.
 - Burning, mowing, brush removal, thinning canopy

On animal tick control

- Ear tags
 - Tag both ears
 - Only effective against ticks in the ear
 - Don't daisy chain



On animal tick control

- Ear tags
- Pour on and sprays
 - Macrocyclic lactones are absorbed into body and available to ticks not along back line



Getting a good pour on dose

- Get correct weight and dose
- Apply head to tail



Dr. AJ Tarpoff

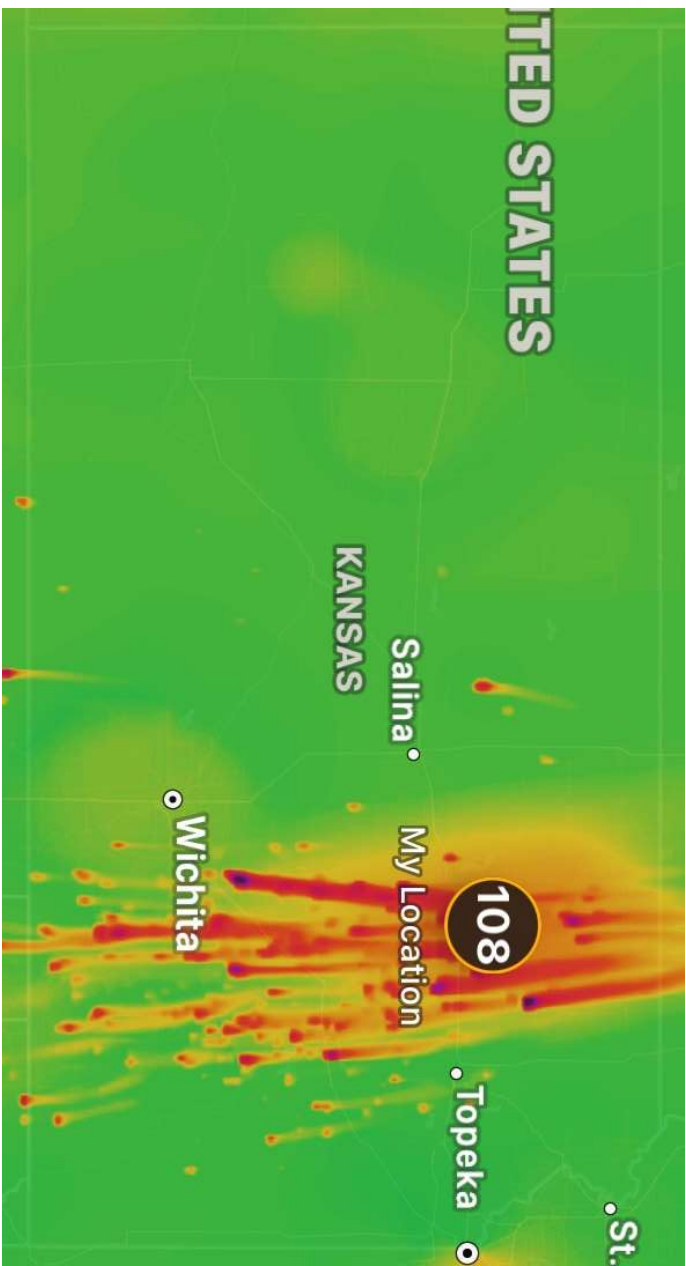
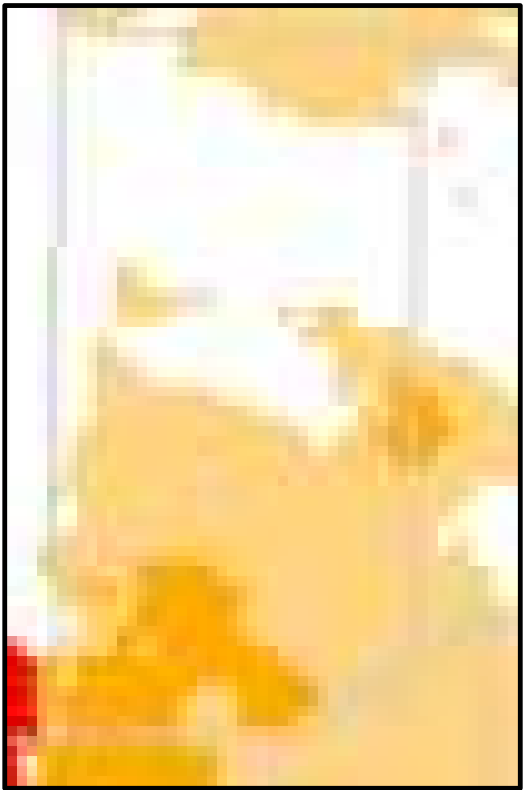
Tick control in pasture

- Burning (especially in the spring)



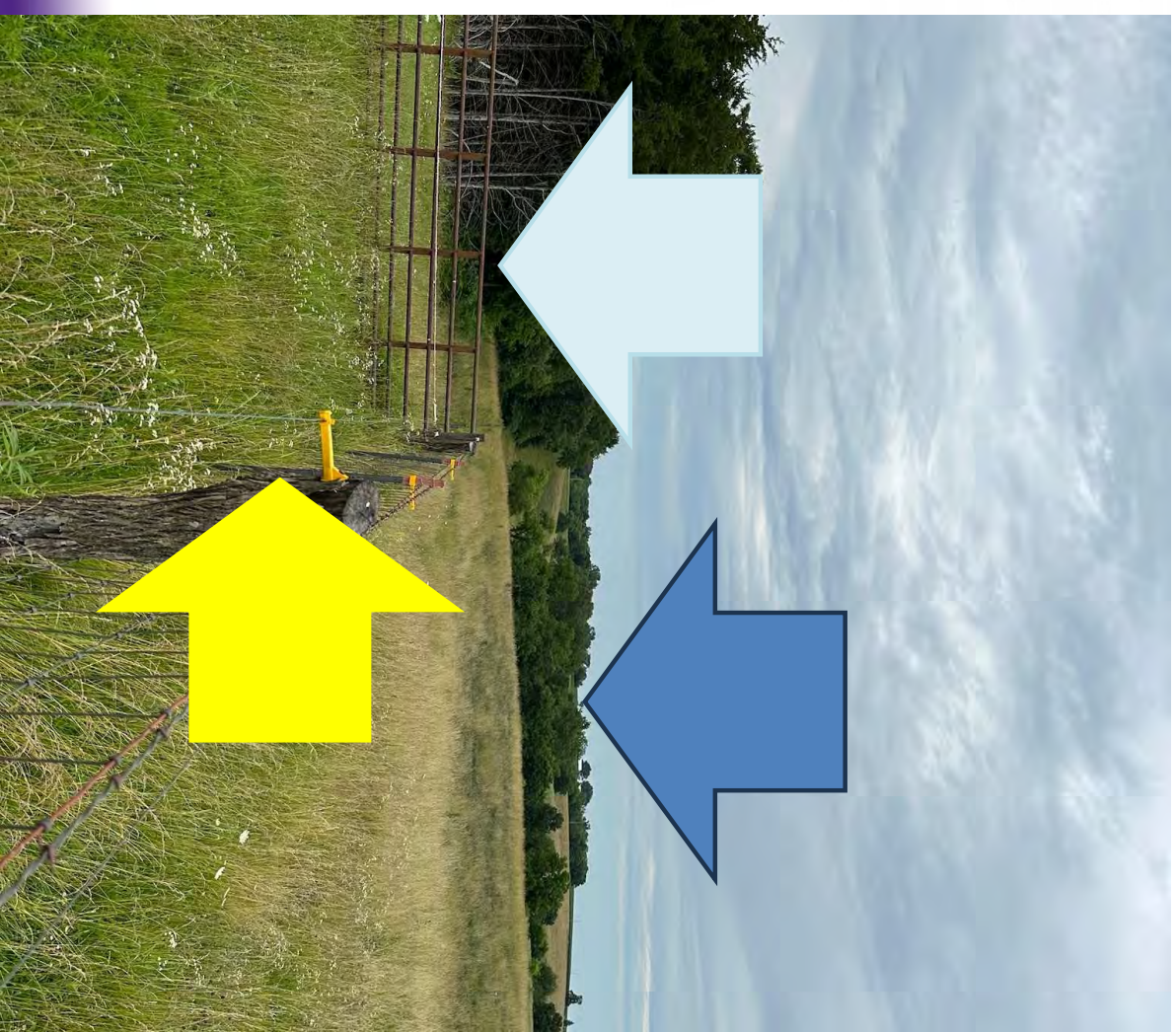
Tips for getting a good burn

- Spring most effective (before temp reach 50s)
- Burning only effective in areas that are burned



Tick control in pasture

- Burning
- Clear brush and hedge areas
 - Focus on transition areas
- Keeping grass short
- Insecticide spraying
- Pasture rotation



What to do if you suspect you have an outbreak

- Take blood samples (red and purple top)
 - If animal is dead, take spleen sample
- Submit to accredited laboratory for testing
- Collect any ticks from the animal, preserve in 70% alcohol and submit for ID
 - Check with your state diagnostic lab, or call Cassandra Olds at KSU
- 1st year seems to be the worst with little to no long-term production problems

Thank You

Cassandra Olds

KSU Veterinary Entomologist

Ph: (785) 706 8599

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A.J. Tarpoff

Beef Extension Veterinarian

Ph: (785) 532 1255

tarpoff@ksu.edu



DONATE

DONTATE TO KGLC



Who We Are?

The Kansas Grazing Lands Coalition (KGLC) is a nonprofit organization dedicated to the long-term health and sustainability of Kansas grasslands. Formed in the early 1990s, we bring together ranchers, conservationists, landowners, and partners who care deeply about grazing land stewardship. Our roots run deep in local communities, and we focus on practical, science-based solutions that work on the ground.

What We Do?

KGLC delivers education and support to help Kansans manage their grazing lands better. We host annual range schools, ranch tours, prescribed fire trainings, and local meetings that connect producers with the tools and knowledge they need. We partner with groups and organizations to address invasive species, promote prescribed fire, and protect wildlife habitat. Our goal is simple: to keep Kansas grasslands healthy, resilient, and working for the people who depend on them.

RANGE ACADEMIES



Covers plant ID, grassland ecology, monitoring, and practical tools for better range management.

PRESCRIBED BURNING



Supports safe, effective burns through training, planning help, and local landowner-led burn groups.

RANGELAND MANAGEMENT



Promotes smart prairie use through education, partnerships, and tools like the Kansas Prairie Primer.

KGLC BOARD OF DIRECTORS

KGLC is guided by a dedicated Board of Directors made up of landowners, agency professionals, and conservation leaders from across the state. Co-Directors, David Kraft & Bruce Wells, alongside the board ensure KGLC is focused on grazing practices, stewardship, and producer support. Our board members bring decades of experience in rangeland management, livestock production, and natural resource conservation. Together, they help guide our mission to improve and sustain the health of Kansas grazing lands.

Get in Touch:



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(620) 340-2985

WWW.KGLC.ORG



AGRI SPRAY DRONES QUICK GUIDE

ADDITIONAL CERTIFICATIONS

REGISTER YOUR DRONE WITH THE FAA

You must first register your drone with the FAA before your exemptions can be granted. Insurance companies will also require drone registration. Agri Spray Drones provides guidance to complete this process.

STATE PESTICIDE APPLICATORS LICENSE(S)

**This differs state to state.*

Similar to having a ground sprayer, you need to obtain a proper state pesticide license to legally spray with a drone. To learn more, check with your state pesticide department regarding correct licensing needed to spray with a drone.

APPLICATOR INSURANCE

If you plan to do commercial application, you need a comprehensive chemical and general liability insurance policy. We are more than happy to refer you to agents specializing in this type of insurance.

FAA 3RD CLASS MEDICAL CERTIFICATE

If you are operating a drone over 55 lbs., you will need your FAA 2nd Class Medical Certificate. This is similar to a physical and must be conducted by a FAA-designated Aviation Medical Examiner (AME).

NIGHT OPERATIONS EXEMPTION

If you plan to operate your drone at night, you will need a night operations exemption from the FAA. Our regulations consultant is available to complete this exemption for you.

MULTI-DRONE/SWARM EXEMPTION

If you plan to fly more than one drone per pilot, you need a multi-drone exemption from the FAA. Our regulations consultant is available to complete this exemption for you.

AGRI SPRAY DRONES | FAA REGULATIONS PACKAGE

In addition to the resources and services listed below, Agri Spray Drones' exclusive package includes full access to our regulations consultant who completes your 55+ lb. exemption and provides guidance to complete your FAA 137 certification.

- Access to our regulations consultant for questions
- Drone Pilots License Study Guide – FAA Part 107
- Aerial Applicators License Guidance – FAA Part 137
- Heavy Drone (55+ lb.) Exemption – Section 44807
- 500 ft. buffer safety case (*ability to operate within 500 ft. of roads and houses*)

Exclusive Package Cost: \$3,000

- Add On: Night operations safety case (*ability to fly at night*)
- Add On: Multi-drone operations safety case (*ability to operate up to three drones with one pilot*)



AGRI SPRAY
DRONES

THE BASICS FOR LEGAL DRONE SPRAYER OPERATION

FAA PART 107 - DRONE PILOTS LICENSE

Also referred to as your Remote Pilot Certification, this license clearly demonstrates you understand the FAA's regulations, operating requirements and procedures for safely flying drones. To learn more, visit [Part 107](#).

- Needed to legally fly a drone for commercial purposes.
- Sixty-question test that must be taken at a FAA testing facility.
- Agri Spray Drones will provide you with a free study guide.

Prep Time: 1-3 weeks of study

Exam Cost: \$175

FAA PART 137 - AERIAL APPLICATORS LICENSE

This license allows you to legally dispense chemical from a drone. To begin this process, you must first send a letter of intent to the FAA. Once the letter is submitted, you will work with your local Flight Standards District Offices (FSDO) to set up a series of meetings. Your FSDO will arrange a time to come to your location, do a verbal evaluation and watch you fly.

- Needed to legally dispense chemical from a drone.
- You must submit a written letter to the FAA and begin the application process with your local FSDO.
- Our Agri Spray Drones' regulations consultant will help you get started with this process.

SECTION 44807 - HEAVY DRONE EXEMPTION

Do you intend to operate a drone weighing over 55 lbs.? If so, an FAA Section 44807 certification is required. Obtaining this certification can feel overwhelming due to the amount of documentation, manuals and petitions you are required to submit to the FAA; however, we make sure you don't have to worry about a thing.

- Needed to legally fly a drone that weighs over 55 lbs.
- Our Agri Spray Drones' regulations consultant will take care of the entire process for you.

Prep Time: ~ 3+ months, if you use our regulations consultant

Not only will we provide you with resources to assist in this process, you will also receive discounted rates when using our drone regulations consulting service.

EAVISION J150



20 GAL

20 GALLON
SPRAY TANK

180 LB

SPREADER
CAPACITY

30 MPH

MAX SPRAY
SPEED*

65+

ACRES PER
HOUR*

10-300+

MICRON
SIZE

POWER PRECISION PERFORMANCE



The EAVision J150 is built for serious operators who demand reliability, efficiency, and productivity at scale.

With its industry-leading 20 gallon liquid tank and 180 pound spreader capacity, the J150 is engineered to handle even the most demanding application scenarios—wet or dry.

High output LIDAR coupled with 3 active radar arrays, high-capacity nozzles, and rear-mounted battery for optimal coverage unlock high-capacity performance capabilities of up to 65+ ac/hr*.

**During field testing. Actual results will vary due to field conditions, firmware evolutions, etc.*



THE J150 IS A GREAT FIT FOR:

- Large row crop spraying and spreading applications
- Specialty crop, high-volume applications
- Highly sloped and challenging field environments

AGRI SPRAY
DRONES

573-519-5000
info@agrispraydrones.com
www.agrispraydrones.com



HIGH-CAPACITY PERFORMANCE

- 20 gal spray tank and 180 lb spreader load
- Max spraying speed: 30 miles/hour* with full obstacle avoidance and terrain following enabled
- Spray flow rate: 10.5 gal/min
- Adjustable droplet sizes from 10 to 300+ microns

SMARTER TECHNOLOGY

- Equipped with 3 active radar arrays for intelligent obstacle avoidance
- 4th-generation mist nozzles ensure uniform coverage with droplet precision
- Smart, redesigned remote control, capable of high output for long-range missions, as well as operating multiple drones in 1 field

PROVEN EFFICIENCY

- Upgraded 63" propellers for powerful lift and balance
- Highly modular design for easier repair and maintenance
- High-capacity (45,000 milliamp), rear-mounted battery for better droplet penetration and easier swapping (capable of emptying an entire tank at 2 gal/ac)
- 13,000-watt charger enables a full recharge from 20% in under 9 minutes, while high-capacity fans ensure rapid cooling for continuous performance
- Effective spray width of up to 40 feet*

**Actual results will vary due to field conditions, firmware evolutions, etc.*



SCAN
FOR MORE
J150 INFO



AGRI SPRAY
DRONES

573-519-5000
info@agrispraydrones.com
www.agrispraydrones.com





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Shaping Livestock Solutions.

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National Cattlemen's Beef Association

WORKING FOR THE AGRICULTURE INDUSTRY SINCE 1894

Advancing the business interests of its members is KLA's mission. Volunteer leaders and staff work to achieve this goal every day by working with legislators and regulatory agencies to advance KLA policy. Our affiliation with NCBA extends our influence to Washington, DC, where the NCBA legislative affairs team represents cattle producers' and landowners' interests before Congress and federal regulators. KLA and NCBA invite anyone with a financial stake in Kansas agriculture to join us in our work on their behalf. Visit kla.org and ncba.org for more details.

We've got your back.

- Protecting private property rights of agricultural producers.
- Ensuring that county and municipal zoning and building regulations do not restrict agriculture.
- Supporting increased weight limits for trucks carrying agricultural inputs, supplies and commodities.
- Defending agricultural exemptions from sales and property taxation.
- Working with state government and groundwater management districts to ensure availability of water for agriculture and other uses well into the future.

Join both associations and receive discounts on:

AmeriWind | Big Bend Trailers | Cabela's | Bass Pro Shops | Caterpillar | Cowboy Cauldron Co. | Dell Technologies
Elanco | Gallagher | John Deere | Montana Silversmiths | New Holland | Roper & Tin Haul | Kubota



KLA/NCBA MEMBERSHIP APPLICATION

Name: _____

Spouse: _____

Farm/Ranch Name: _____

Address: _____

City: _____ State: _____

County: _____ Zip: _____

E-mail: _____

Home Phone: _____

Cell Phone: _____

Recruited By: _____

Type of Operation: _____

• Kansas Livestock Association Dues:

Fair Share # cattle over 100 head _____ x 50¢ = \$ _____

plus Base KLA Dues Investment \$ 180.00

• National Cattlemen's Beef Association Dues:

Cow/Calf Producer (Based on herd size)

<input type="checkbox"/> 1-100	\$170	<input type="checkbox"/> 501-750	\$736	<input type="checkbox"/> 1251-1500	\$1,586
<input type="checkbox"/> 101-250	\$340	<input type="checkbox"/> 751-1000	\$1,020	<input type="checkbox"/> 1501-1750	\$1,870
<input type="checkbox"/> 251-500	\$510	<input type="checkbox"/> 1001-1250	\$1,304	<input type="checkbox"/> 1751-2000	\$2,154
<input type="checkbox"/> 2001 +	\$2,154 plus .4307¢/head over 2000				

Stocker/Feeder

\$170 + (.4307¢ x _____ head = \$ _____)

plus NCBA Dues Investment \$ _____

Total Dues Investment \$ _____

The portion of KLA and NCBA dues not directly allocable to lobbying expenditures is tax deductible for most members as an ordinary and necessary business expense. For KLA, dues are 92% deductible; NCBA dues are 90% deductible.

Return this application with your dues investment to:

Kansas Livestock Association
6031 SW 37th Street • Topeka, Kansas 66614

