



United States Department of Agriculture

# Curran Salter

Wildlife Biologist (USDA/APHIS/WS/KS)

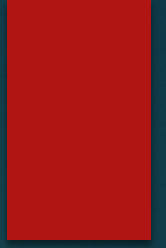
United States Department of Agriculture  
Animal and Plant Health Inspection Service  
Wildlife Services

# USDA Wildlife Services:

- Involved with certain animal damage control projects in the state of Kansas including:
  - Feral Swine
  - Bird/mammal strike mitigation at airports
  - Urban power plant/railyard bird control
  - Prairie Dog management
  - Animal disease testing and surveillance
  - Beaver damage management at National Wildlife Refuges
  - Bird damage management at feedlots and dairies
  - Animal damage management at military bases



# KS/Wildlife Services feral swine program





In Kansas, feral pigs fall under KDA jurisdiction (KS Animal Health ).  
USDA/WS is the "contractor for control work" for the state of  
Kansas.



## ▶ European Wild Boar

- ▶ *Sus scrofa*
- ▶ 1-2 litter/year
- ▶ 4-6 pigs/litter
- ▶ Native to Europe/Asia

# History





# History

- ▶ Domestic Pig
  - ▶ *Sus scrofa*



provided by National Swine Registry



# History

- Feral Hog
  - *Sus scrofa*
  - 2 litters/year
  - 6 -12 pigs/litter
  - Sows can be mature enough to breed at 8 months
  - Hybrid from all domestic breeds that have reverted back to wild





# Feral Swine Distribution 2020

- Present in at least 35 states and as far north as Idaho, Michigan, Oregon and several Canadian provinces.
- Present in every county in Oklahoma and Texas.
- Expansion primarily due to illegal translocation by humans! (USDA 2020, Smithsonian Magazine 2019, MS State University Extension)





# Nationally

- ▶ Estimated 6 Million Free Ranging Feral Swine (2020)
- ▶ Damage Estimated at 1.6 billion dollars per year to Ag (2015)



# FS Damage to Oklahoma Agriculture

- ▶ “It is in the hundreds of millions...we feel certain of That”
- ▶ Scott Alls OK WS State Director
- ▶ The Oklahoman, July 26 2020

















































LEMMO

WILLIAM F. HATTIE  
JULIA F. HATTIE  
BORN 1840 DIED 1900







# Feral Pigs in Kansas What Has Been Done?

- ▶ 1995-2000 Control work conducted on Ft. Riley (385 pigs removed)
- ▶ 2004 Conducted feral pig operational control (aerial) for Murphy Farms Inc. in response to a disease threat. (PRRS) Removed 14 pigs.
- ▶ May 2005 Inter-agency meeting discussing feral swine issues in Kansas.
- ▶ Sept. 2005 Wildlife Services begins surveying and documenting other feral pig populations.
- ▶ 2005-Present WS Active control work
- ▶ Eradicated 12 populations of feral Swine
- ▶ "Kansas Model"





What's the biggest factor driving the importation and spread of current populations?

▶ Hunting:

- ▶ Pigs are being released for hunting interests.
- ▶ Current populations are being hunted with little success and may spread to new areas due to hunting pressure.



# Eliminate sport hunting for pigs in Kansas?

- ▶ Takes away the incentive to release new populations for hunting and eliminates “accidental” releases from hunting preserves.
- ▶ May help slow the spread of current populations or “scattering” of pigs by hunters
- ▶ Hunting has never been shown as an adequate population control method for feral swine.
- ▶ Makes control efforts more likely to be successful

Other states with “emerging” pig populations are currently taking same approach to discourage pig hunting



# The "Law"

## [www.kslegislature.org](http://www.kslegislature.org)

- No person shall import, transport or possess live feral swine in the state.
- No person shall intentionally or knowingly release any hog, boar, pig, or swine to live in a wild or feral state upon public or private land.
- No person shall engage in, sponsor, instigate, assist or profit from the release, killing, wounding or attempted killing or wounding of feral swine for the purpose of sport, pleasure, amusement or production of a trophy.



# The Law (Continued)

- The provisions of this section shall not be construed to prevent owners or legal occupants of land, the employees of such owners or legal occupants or persons designated by such owners or legal occupants from killing any feral swine when found on their premises or when destroying property. Such designees shall have a permit issued by the livestock commissioner in their possession at the time of the killing of the feral swine.



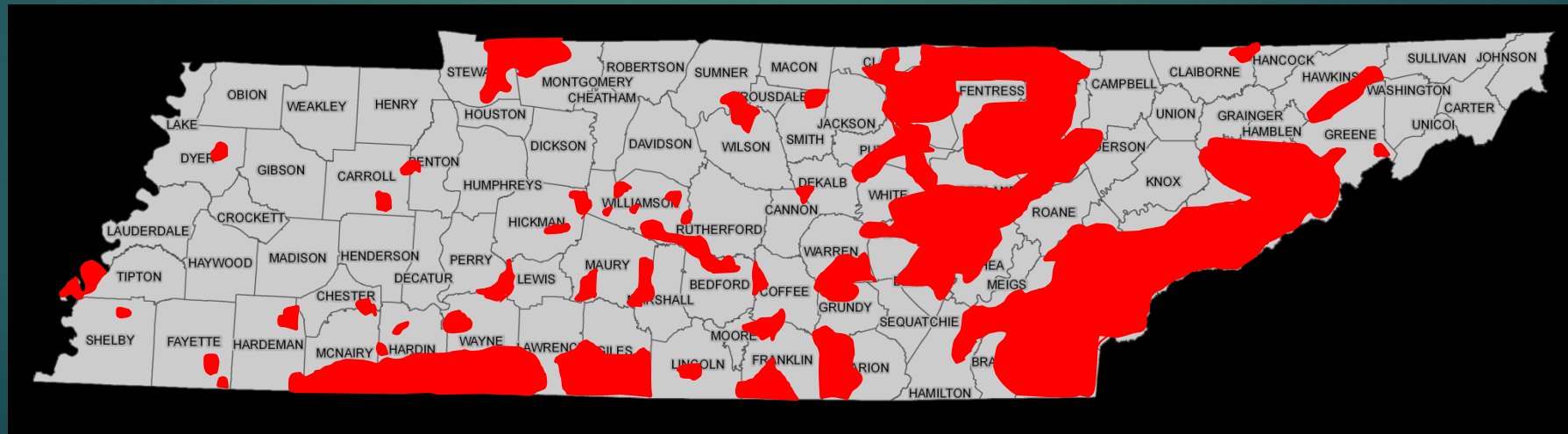
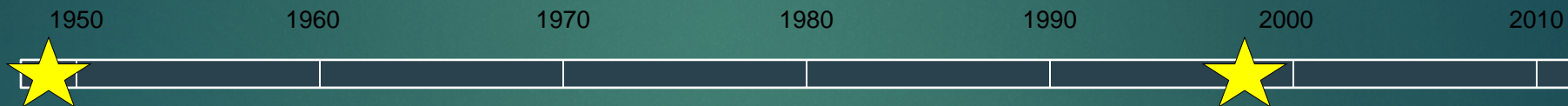
# Time Lapse View of Wild Hog Range Expansion

In 1999, the TWRA authorized a statewide, year-round, no-limit, hog hunting season.

The following is 50+ years of “No Hunting” statewide hog regulations.

(Hog hunting was only permitted in areas with known populations)

Here is what happened in just over 10 years of statewide hog hunting....





Control Methods:  
Trapping  
Aerial Operations  
Thermal/Firearms

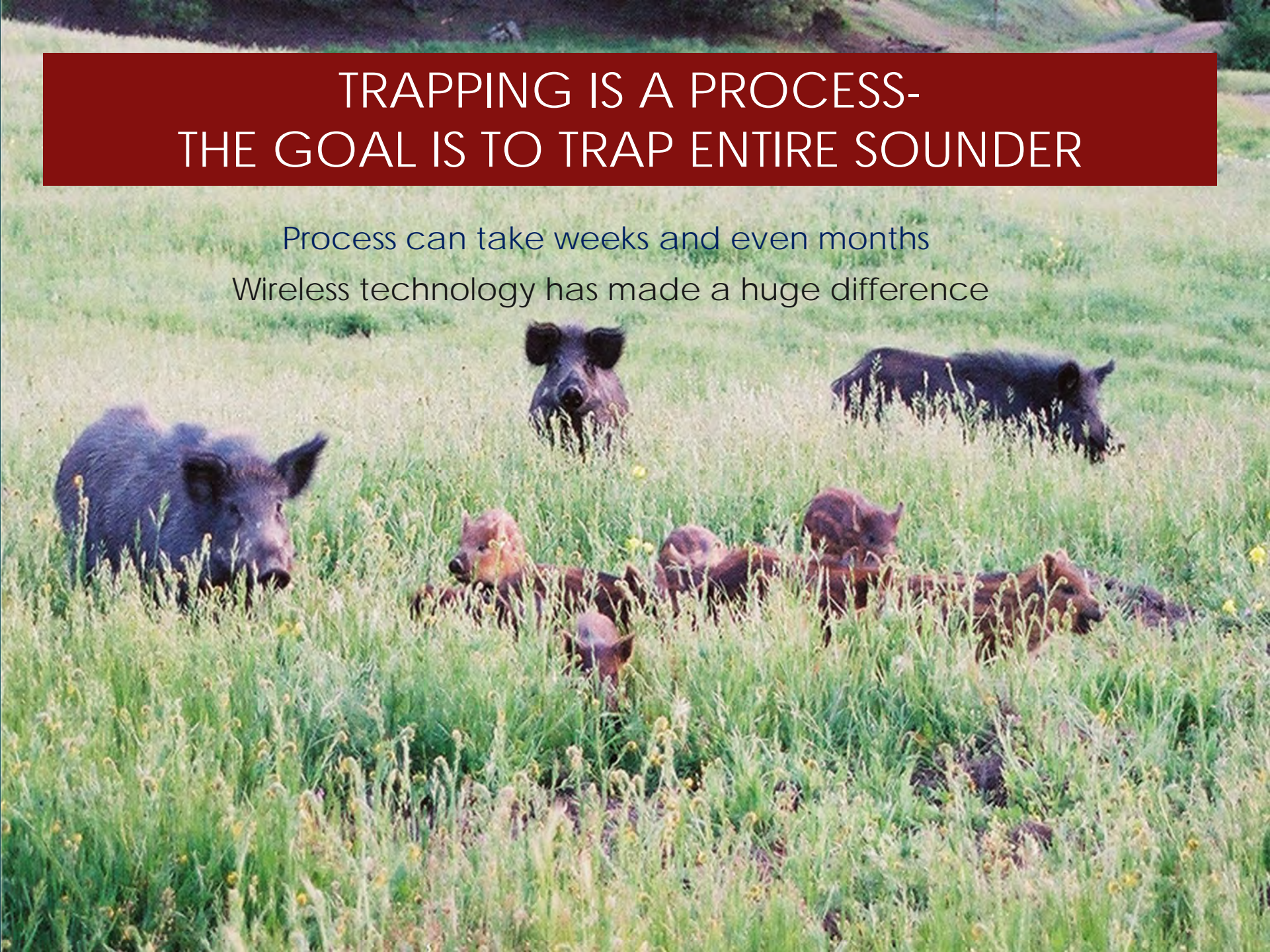




# TRAPPING IS A PROCESS- THE GOAL IS TO TRAP ENTIRE SOUNDER

Process can take weeks and even months

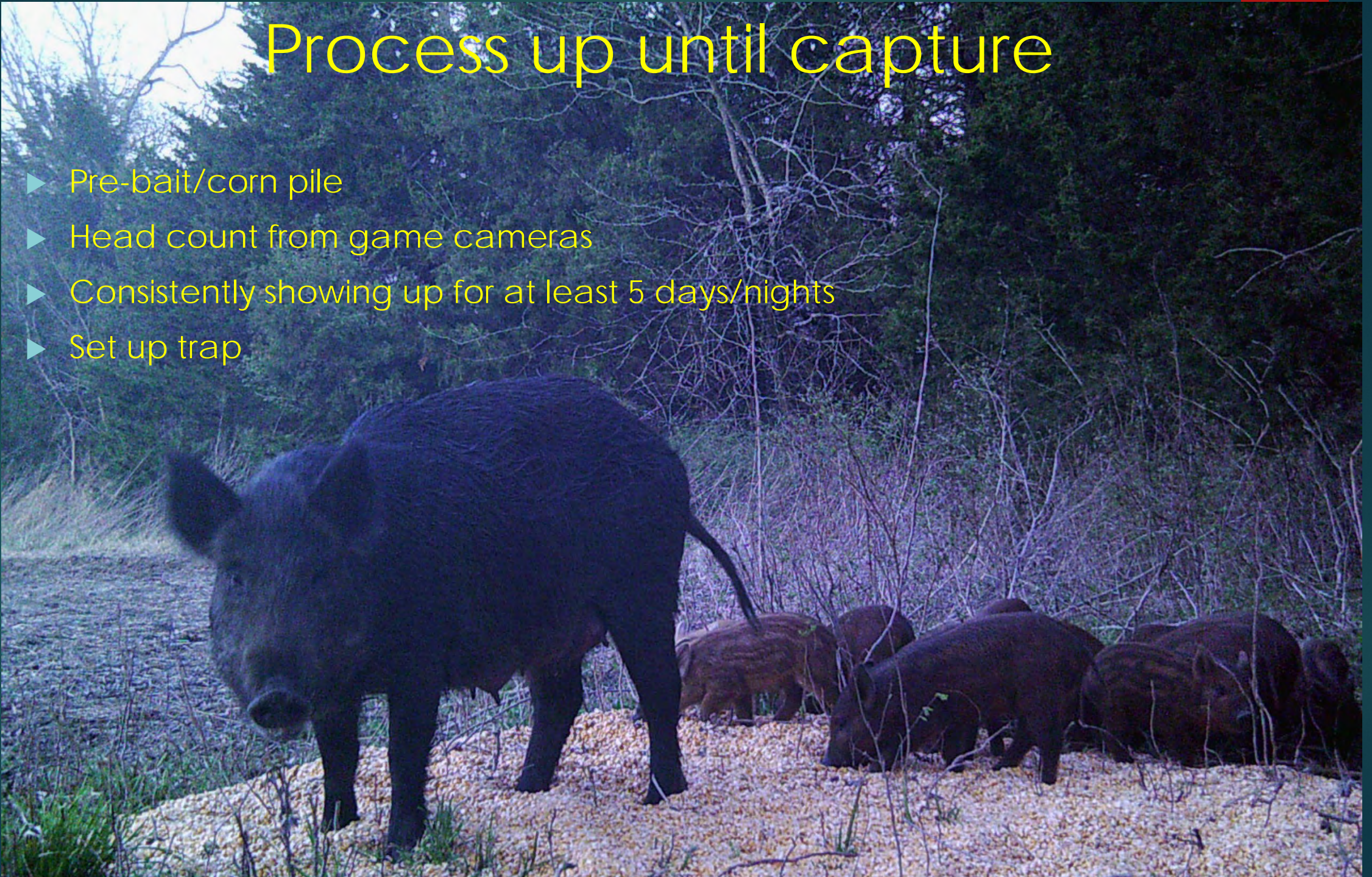
Wireless technology has made a huge difference





# Process up until capture

- ▶ Pre-bait/corn pile
- ▶ Head count from game cameras
- ▶ Consistently showing up for at least 5 days/nights
- ▶ Set up trap





# New Trapping Technologies:

- Drop Corral Trap
- Drop gates
- Wireless trigger



Advantage is operator decides  
when to trip trap!





JAGER PRO-trap 2

04.08.2014 20:02:51 09 010°C 050°F 008





Kansas WS was one of a handful of agencies chosen to field trial new drop corral from Noble Foundation.

Thu Jul 17 20:29:50 2014







Thu Jul 17 20:37:36 2014





# Advantages of Drop Corral Trap

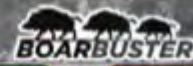
- Whole sounder removal
- Very little if any “training time”
- No gates/doors to go through
- Very little setup time (30-40 minutes)
- No post pounding







00:00:03.000



Safe



Deploy Trap

Stop Stream



Thu Jul 20 21:23:27 2017





00:00:00.000





# AERIAL OPERATIONS

- Remove trap shy pigs
- Inaccessible areas
- Ground work lays the foundation for the helicopter
- Cover lots of ground









# Thermal Night Vision



Used on small groups or single boars. Usually if a large sounder is spotted, we let them walk and try and trap the whole group.



# State Wide since 2006

- ▶ Since Program Inception
  - ▶ ~10,000 FS removed (50/50 Aerial/Ground)
- ▶ 1,388 FS removed along the OK Border in SE KS in the last 5 years
- ▶ 493 Pigs removed since January 1, 2020.
- ▶ Worked with all of our neighboring states WS and state fish and game agencies on "border populations"



Currently focusing our efforts in 2 areas

\* Bourbon/Linn county population(Same challenges in this area)

Difficulty in getting landowner cooperation

Thick, dense cover

Hog hunting culture

\* Oklahoma state line in Cowley, Chautauqua, Montgomery, Labette, and Cherokee counties (140 mile stretch)

Landowner cooperation has been excellent (99% permission)

Challenge in this area will be to halt northward expansion

Oklahoma has feral swine population ~1.5 million

MO WS is in similar situation.

Current population estimate is approximately around 1,000 pigs. That estimate can change daily either up or down



KS WS Feral Pig control program

Curran Salter (Feral Swine Biologist)

Phil Heagy Bourbon/Linn county

Ryan Hubert Cowley/Chautauqua/Montgomery

Hagen Hanzlick MG/LB/CK/AL/AN

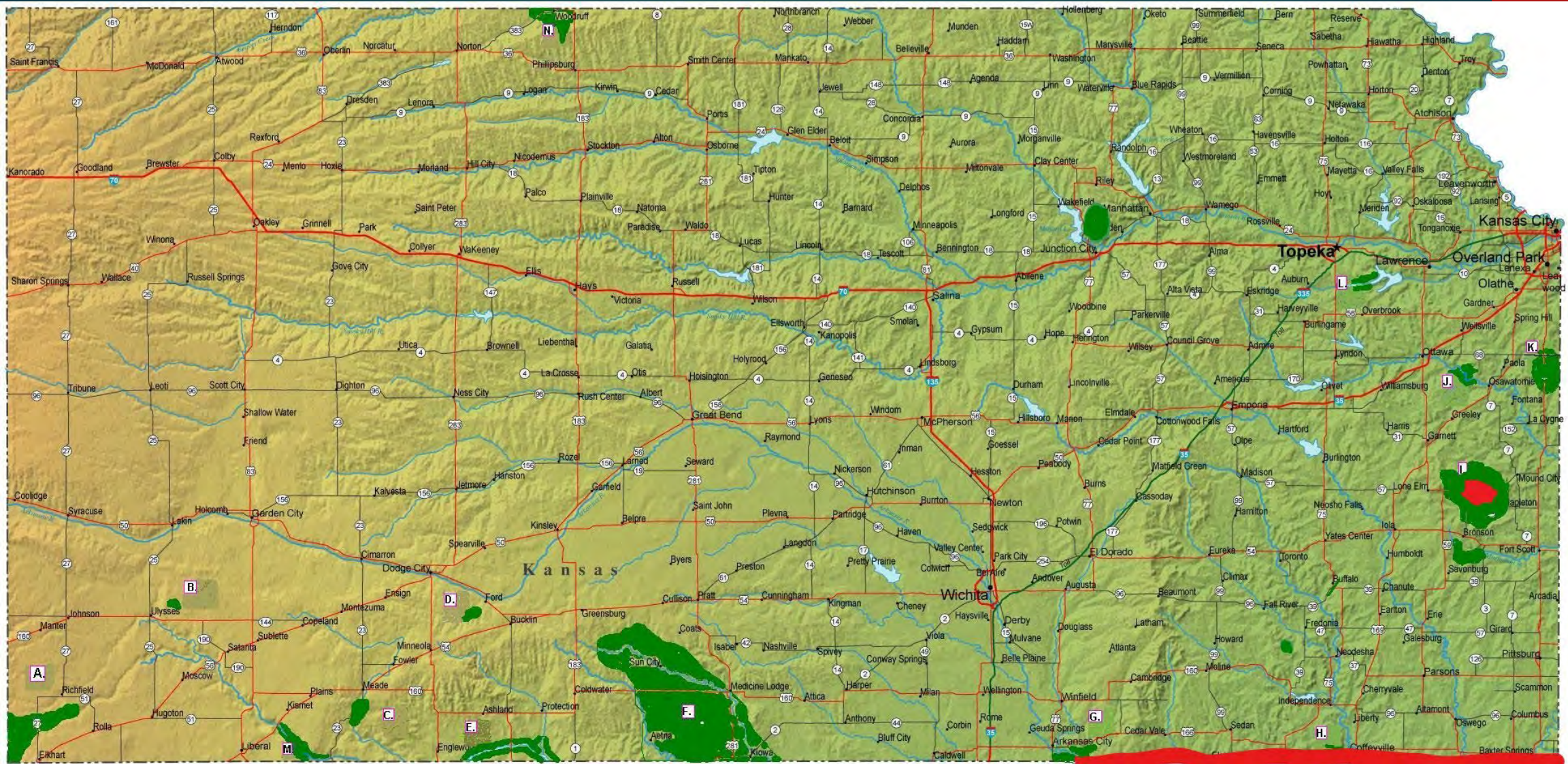
Currently working on 150 landowners in Bourbon/Linn (smaller parcels)  
and ~100 along state line in CL,CQ,MG,LB,CK and AN/AL



KS	MO
Feral pigs introduced mid 1990's WS control program started 2005-06	Feral pigs introduced mid 1990's WS control program started 2005-06
Discouraged/Banned sport hunting	Encouraged sport hunting (have strongly discouraged/banned since 2016-17)
KS WS has eradicated 12 "established" populations with 1 remaining in BB/LN ("maintenance" along OK line)	Has ~30 established populations
KS WS removes ~500-600 pigs annually	MO WS removed over 10,000 in 2019
KS population estimate <1,000	MO population estimate 40,000+
4 WS employees	32 WS employees

\*MO has heavily discouraged sport hunting the last couple years and is making steady progress towards elimination in certain areas.





Kansas is still miles ahead from where we started in 2005-06 (Kansas Model)  
We are currently in a “maintaining status quo” situation.  
Goals/expectations will have to be different than when we started.