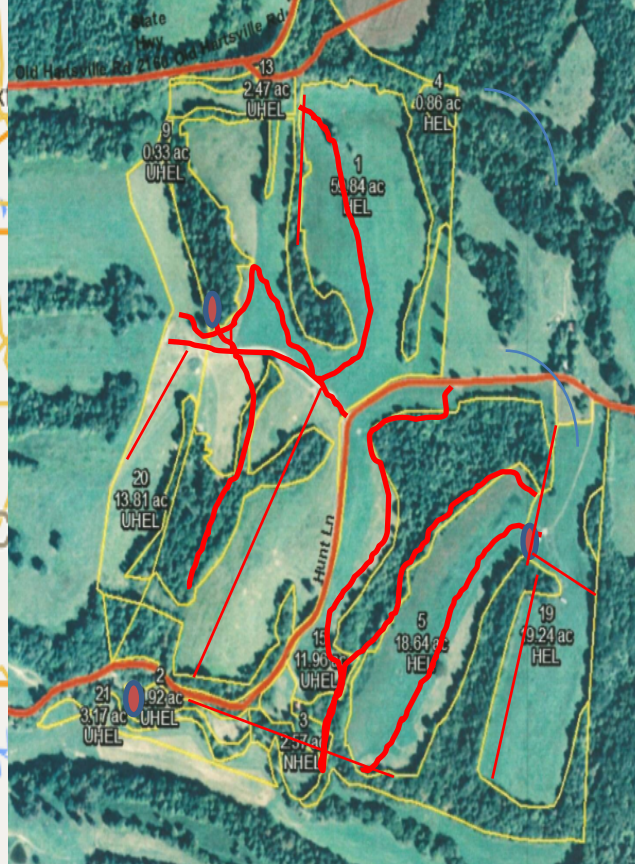
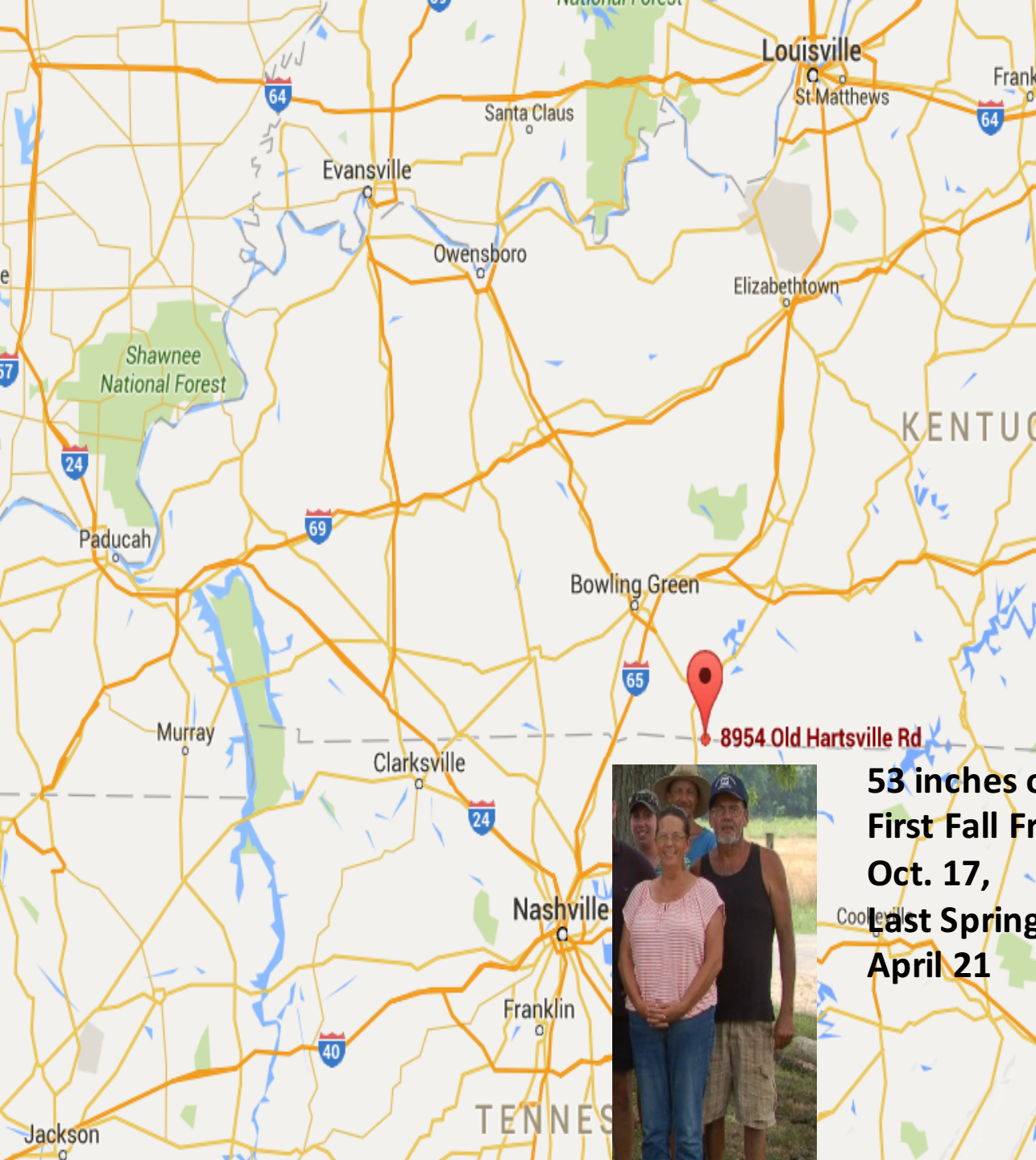


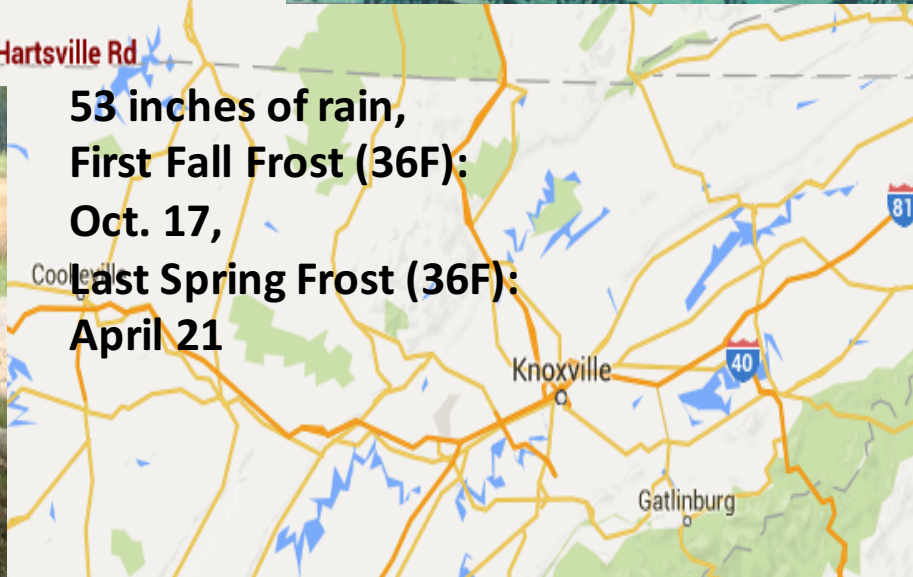
MULTI-SPECIES GRAZING AT BIG SPRING FARM



Greg Brann, Grazing and Soil Health Specialist, TACD
and
Owner/Operator of Big Spring Farm
Adolphus, South Central Kentucky



**53 inches of rain,
First Fall Frost (36F):
Oct. 17,
Last Spring Frost (36F):
April 21**



Holistic Goal:

A low stress, low cost grazing operation that improves the environment, life and production while being consistently profitable



SOIL



- **PHYSICAL**
 - **TAXONOMIC CLASS:** Fine-loamy, siliceous, mesic Typic Paleudults
 - **RANGE IN CHARACTERISTICS:**
 - Depth to bedrock ranges from 60 to more than 100 inches
 - Extremely acid to medium acid
 - Rock fragments are mostly chert, averages less than 35 percent
- **CHEMICAL**
 - **INHERIANT SOIL FERTILITY:**
 - pH 5.6, (**Target 6.2 – 6.7**)
 - OM 3.0 %, (**Target 4% or higher**)
 - P2O5 low and K2O medium (**Target Medium High**)
- **BIOLOGICAL**
 - 30 or more earthworms per cubic foot during April or November
 - Roots: Fibrous and tap
 - Living and dying plants in all seasons

PLANT



- **Diverse plant community**
 - **Grasses:**
 - Cool season: Tall fescue, Orchardgrass, Prairie Bromegrass, Annual ryegrass and Small grains
 - Warm season: Johnsongrass, Bermudagrass, Crabgrass, Sudangrass, Corn, Millets
 - **Legumes:**
 - Cool Season: White clover, Red clover, Hairy vetch
 - Warm Season: Annual lespedeza, Cow peas, Soybeans, Sun hemp
 - **Forbs:** Turnips and other brassicas, Chicory
- **Green Leaf:**
 - Begin Grazing: Seven to 11 layers of grass leaves
 - End Grazing Residual: 3+ layers of grass leaves
- **Residue:** covering the soil up to 3/8" thick

ANIMAL

Stocking Rate:



- Dynamic 220 AC/100 AU =
2.2 ac/AU
 - 150 Ewes (27 AU)
 - Breed ewes November 7 (6 rams)
 - Target lambing date April-May
 - 50 Cows and 37 stockers (73AU)
 - Breed cows May 9 (2 Bulls)
 - Calving date February 15- April 15
 - Spring calving and lambing
- Pregnancy test cows in fall
- Cull stock that don't maintain body condition, raise good lambs or calves and don't rebreed
- Ewes and Cows should have lots of capacity, good body condition, and be good mothers

Soil Health Management



- **Maintain Cover**
 - pH of 6.2 to 7.4
 - P2O5 and K2O in the medium high category
 - Chicken litter (45-45-45/ton) 1 ½ ton/ac added for P typically
 - Nitrogen from legumes, seed half rate annually (Target 30 to 40% legume)
 - Green leaves 7 to 11 layers
 - Strive to not let brown leaves shade green leaves
 - Strive to not let undesirables shade desirables and vice versa
 - Residue cover up to 3/8"
 - Diverse plant community
 - Seed 1 lb of buckwheat, 1 lb sunflowers, 1 lb of turnips in most mixes
 - I use annual ryegrass as a smother crop of weeds
 - Johnsongrass may be my favorite forage



Grazing Management Dynamic/ Adaptive Management



- **Flerd**: easiest grazing the cows and sheep together
 - Best for pasture due to longer forage recovery time (target 45 to 210 days)
 - Typically graze a paddock 3 days or less (not allowing them to take a second bite of a plant).
 - Mineral: (park it on weeds or low fertility area)
 - Cattle mineral with high copper in barrels on mobile wagon
 - Sheep mineral fed behind a single hot wire about 34" off the ground
 - Cattle add predator control and are typically respectful of lambs
- ***Disadvantage: multi-wire fencing (typically 3 wire depending on grass available)***

Grazing Management

- Strive to not graze close
- Lock stock down on one paddock when minimum grazing heights are reached “sacrifice area”
- Feed hay when we can grow grass: September or October
- Top third grazing
- Take half Leave half
- Creep Grazing and other Forward Grazing
- Boom or Bust with long recovery (weed management)
- Stock density 10,000-100,000 lb/ac.
- No inputs on some fields in 10 years
- Fewer cows and keep calves longer



Hay: too expensive to buy, too cheap to sale

- Feed hay on low fertility and/or weedy areas
- Typically feed 1500 to 2,000 lb hay/AU/yr
- Each ton of hay contains 60-13-48 of N-P2O5-K2O
- Anecdotal: Hay harvest sets back production 5 years w/o outside nutrients



Get them all to stand before moving





Weeds are palatable at
certain stages.

A fast rotation of 3 days or
less on a paddock and
returning in ~45 days works
well

Buttercup selectively grazed by sheep



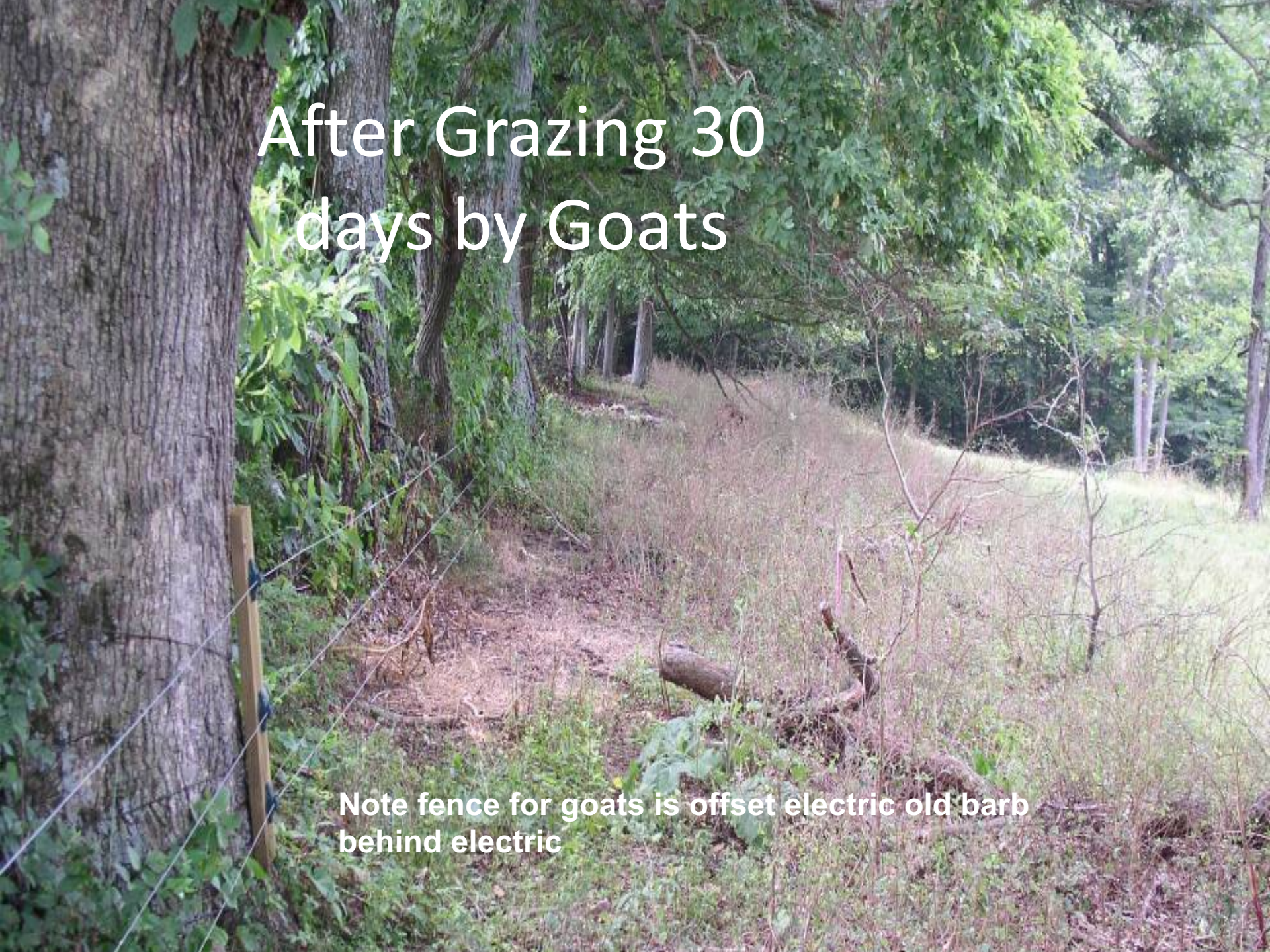
A photograph of a lush green field with a dense forest in the background. The field is filled with tall grasses and various green plants. The forest consists of many trees with thick foliage, creating a dark green backdrop. The sky is visible at the top right, appearing bright and clear.

**Before grazing by
Goats, 600 lbs/ac**

**Disclaimer: livestock preferences vary according to experience and
management**

After Grazing 30 days by Goats

**Note fence for goats is offset electric old barb
behind electric**



Blackberry briars and Tall fescue before grazing

Too
mature

Electronet





**Blackberry
briars and
Tall fescue
after grazing**

**1700 lb/ac of
goats for 1
wk**

Before Picture in August Pigs with Cattle, Goats, Dogs and Sheep



After Picture November - Prairie
Bromegrass adapted to shade and
heavy manure areas



Strip Grazing Corn

Are we suppose to be in here?
What is this stuff?

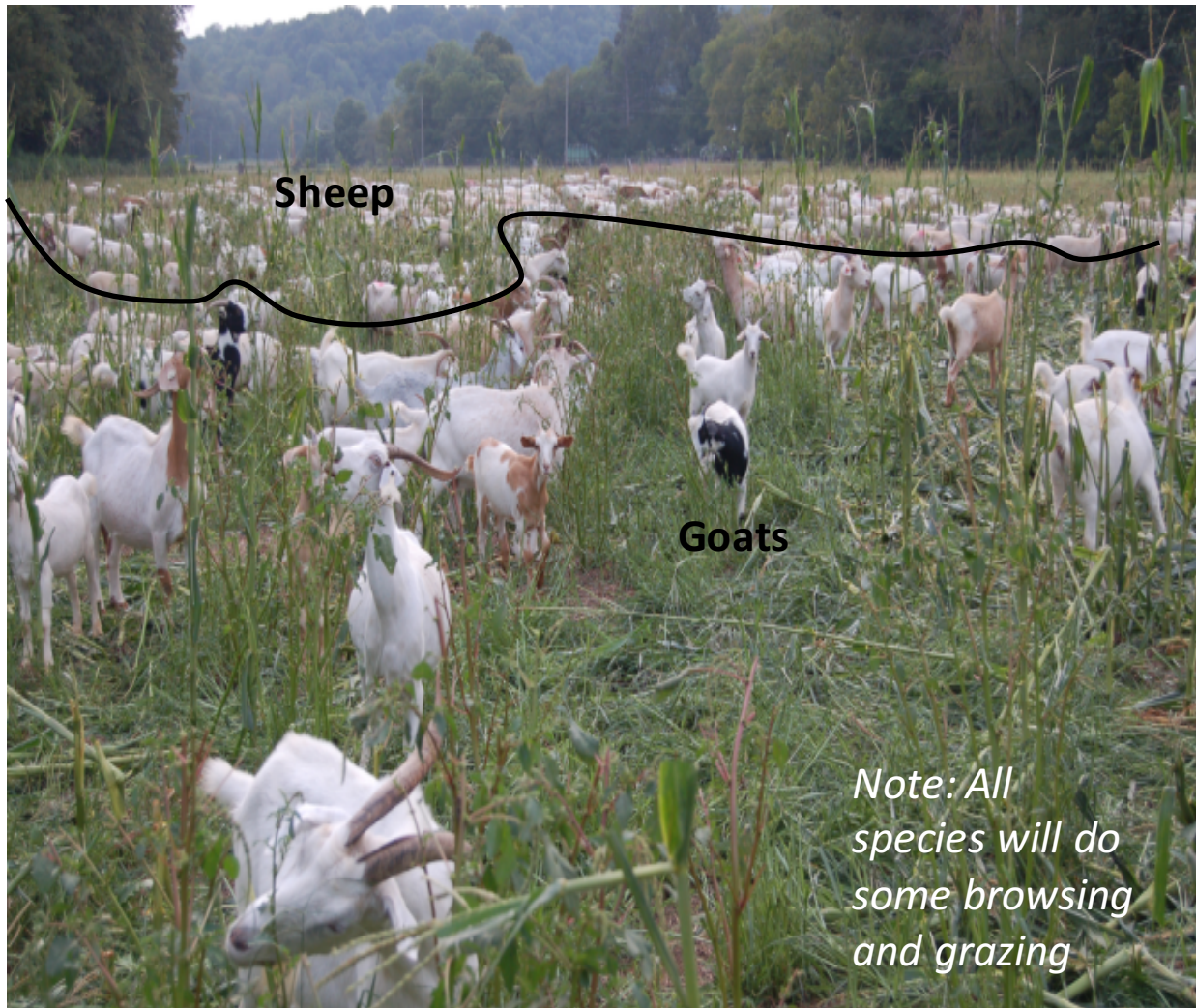


150,000 ppa, drilled

Later Day 1, 8/10/2012



Goat heads high, Sheep heads low, Cattle in tall corn



Path for fence
knocked down with truck,
3 wire poly fence



August 18, Day 8, of strip grazing
Too much can be eaten, ***screw up!***



Not good residue (litter) management should have
back fenced, results in reduced: fertility, moisture

Summary

Be Observant!

18th Annual Pasture Walk

October 19, 2018

Adolphus, KY

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Welcome friends on facebook

