

# 2010 K-State Animal Science Extension Agent Update

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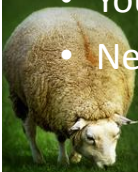
Extension Sheep & Meat Goat Specialist

November 2, 2010



## Outline

- Sheep & Meat Goat Numbers
- Controlled Internal Drug-Release device (CIDR) approval
- Multi-species grazing
- Co-products used in sheep and goat diets
- FAMACHA and Parasitism
- Youth Projects
- New K-State Sheep & Meat Goat Center Update



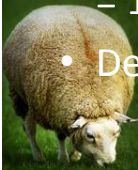
## Sheep & Meat Goat Numbers

- 1990 – US Ranchers had 11.4 million head of sheep (150,000 head in Kansas).
- January 2010 – US Ranchers had 5.6 million head of sheep (80,000 head in Kansas).
- Demand for lamb was down 10% in 2009.
- Supply is a concern.



## Sheep & Meat Goat Numbers

- 2005 – US Ranchers had 2.71 million head of goats (25,500 head in Kansas).
- January 2010 – US Ranchers had 3.04 million head of goats (45,800 head in Kansas).
- Goats do not have records earlier than 2005.
- Angora – TX 1990 = 1.9 million head; US 2010 = 150,000 head
- Demand is strong; Hard to track numbers



# Sheep CIDR



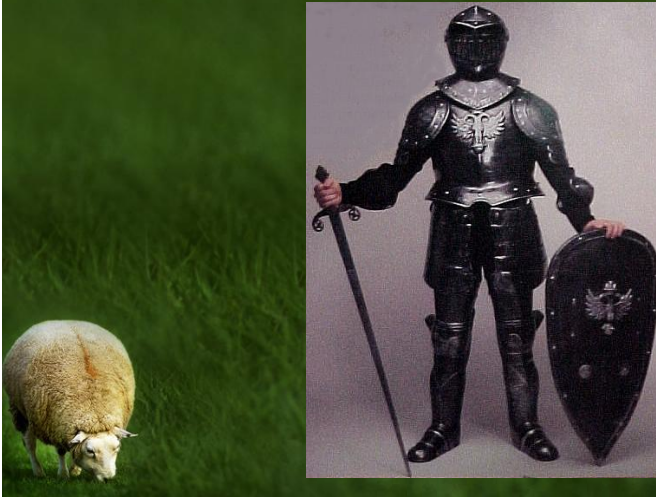
FDA Announces Approval – November 16, 2009  
Available for purchase – mid-December 2009



***Multi-Species Grazing***



A sheepman's initial thought of dress when going to speak to cattlemen.



## Alternative or Multi-specie Grazing

- Alternative species
  - Seems to refer to different plants grazed
  - Also refers to bison, camelids, elk, deer, ostriches, game birds, rabbits, and goats
- Multi-species
  - Sheep, goats, cattle, or horses
  - When more than one kind of livestock graze a unit of land.

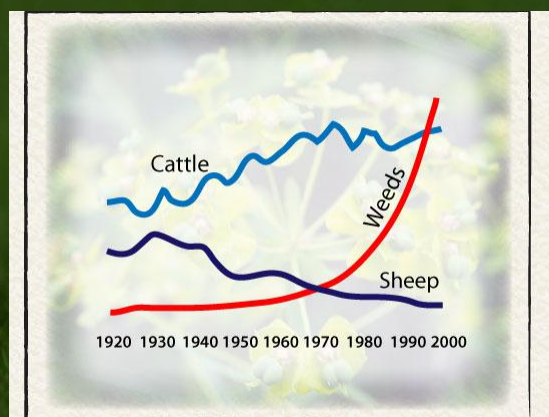


“Stock eat the valuable forage plants and leave the poor ones, thus giving the latter undue advantages in the struggle for existence.”

-E.O. Wooten, 1908



## Managed Grazing Systems



Trend in cattle, sheep, and weeds in the 11 Western states. The decline in sheep numbers accounts for almost 90% of the variation in weed acreage.



## Major challenges

- Increased fencing requirements.
- Lack knowledge of small ruminant husbandry.
- Increased complexity because of enterprise diversity.



## Advantages

- Increased carrying capacity.
- Improved botanical composition of pastures and suppression of undesirable species.
- Increased individual animal performance of one or more species in the mix.
- Reduced predation of sheep or goats grazing among or bonded to cattle.

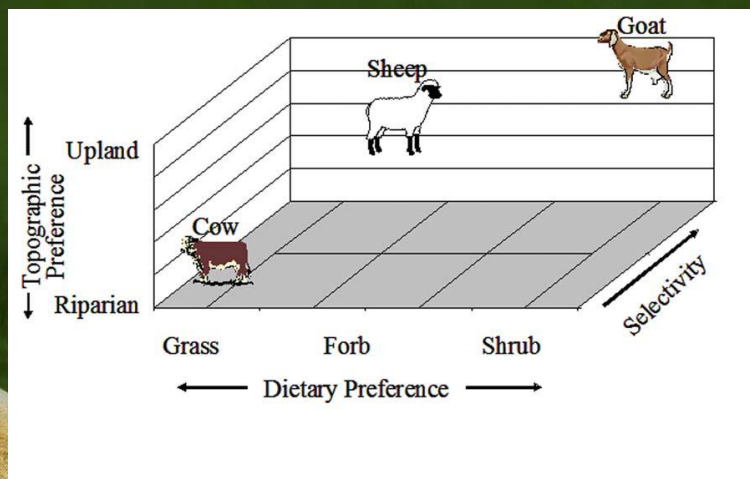


## Advantages

- Improved animal health because parasite problems are often reduced.
- Greater net return for the ranching enterprise.
- Improved cash flow marketing different products at different times of the year.
- Reduced financial risk because of increased enterprise diversity.



## Important specie aspects

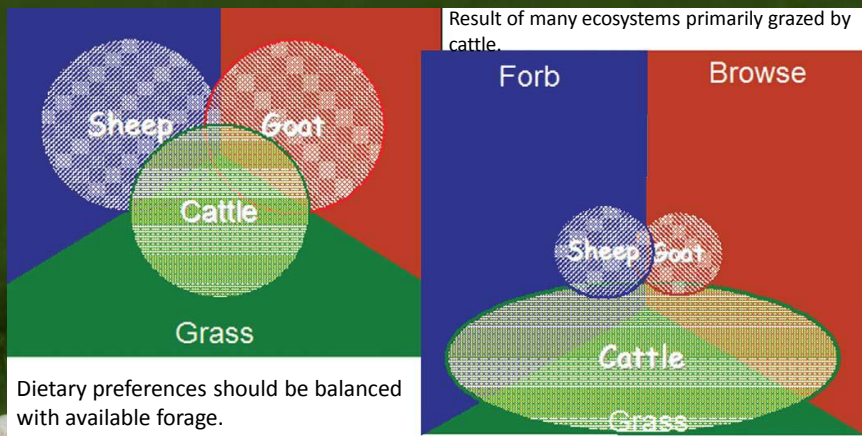


## Dietary and Landscape Preferences

- Cattle
    - 70% grass
  - Goats
    - 60% browse
  - Sheep
    - 50% grass
    - 30% forbs
- Cattle
    - Lower, flatter areas
    - Degrade riparian areas
  - Goats and sheep
    - Utilize steeper slopes
    - Bed on open uplands
    - Strong tendency to graze into wind
    - Overuse bed grounds or one side of pasture



## Grazing ecosystems





## Other points to consider

- Mineral balance (Copper toxicity in sheep)
- Decrease internal parasite loads
  - Specie specific = cannot survive in GI tract of other specie
- Predator issues
  - Bond sheep/goats to cattle
  - Guardian animals (llamas, dogs, donkeys)



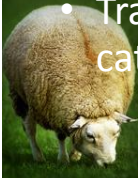
## Other points to consider

- Biological control of Invader plant species
  - *Serecia lespideza*, cedar/juniper, leafy spurge



## 10 Key Points

- Wildlife and livestock grazing preferences influence which plants dominate grazing lands.
- Single-species grazing can adversely affect botanical composition.
- Multi-species grazing is the norm for natural ecosystems.
- Tradition and easier management have made cattle the norm on grazing lands.



## 10 Key Points

- The spread of invasive weeds on Western rangelands coincides with a reduction in sheep numbers.
- Multi-species grazing can increase grazing and carrying capacity.
- Two or more species grazed together can improve animal performance.



## 10 Key Points

- Grazing cattle with sheep or goats can reduce parasites.
- Multi-species grazing can improve cash flow and reduce financial risk.
- Those committed to improving the land may find that multi-species grazing is the best way to fulfill that commitment.



**How do we meet nutritional requirements in the face of rising feed costs?**



## What should we expect?

- Feed = Largest expense of sheep/goat operation
- Regardless of number (25-2500 head)
  - Feed = 50 to 70 % of total cost



## What should we expect?

- Nutritional requirements
  - Age
  - Gender
  - Physiological state
  - Climate



“Learn when to feed them to make a dollar,  
and learn when not to feed them to save a dollar.”



## Sorghum Grain and Corn

	DM	TDN	NE <sub>m</sub>	NE <sub>g</sub>	NE <sub>l</sub>	CP	CF	Ca	P
	%	%	Mcal/kg			%	%	%	%
Sorghum (Milo) Ground	89	82	2.0	1.3	1.9	11.0	3.0	0.04	0.32
Sorghum (Milo) Flaked	82	90	2.2	1.5	2.1	11.0	3.0	0.04	0.28
Corn Whole	88	88	2.2	1.4	2.0	9.0	2.0	0.02	0.30
Corn Rolled	88	88	2.2	1.4	2.0	9.0	2.0	0.02	0.30
Corn Steam Flaked	85	93	2.3	1.6	2.1	9.0	2.0	0.02	0.27



## Co-products

- Wet and Dry Distillers Grains
- Wet and Dry Distillers Grains with Solubles
- Corn Gluten Feed
- Highly concentrated feedstuff



## Co-products comparison (DM)

	DDG	WDG	Corn	SBM	Soy Hulls
DM, %	90	30	89	91	90
TDN, %	83	90	88	84	77
CP, %	30	33	9.8	49	13
Fat, %	10.6		4.3		
Calcium, %	0.16	0.02	0.03	0.38	0.55
Phosphorus, %	0.60	0.65	0.31	0.71	0.17
Sulfur, %	0.48-1.3	0.58-1.5	0.14	0.45	0.12
Copper (ppm)	6		2.5		17.8

NRC, Schauer, Held

## Co-products

- Storage
- Feed Safety
  - Challenges due to phosphorus, sulfur, and fat levels
  - Maintaining appropriate Ca:P ratio
  - Research is being reported on feeding increasing levels of DDG in lamb rations



## Co-products

- Summary
  - They can be excellent protein supplements or in creep feed
  - Balance for Ca:P and Sulfur content
  - May be a good energy source
  - Major benefit is when they are cheaper than conventional feeds



## FAMACHA and Parasitism

- Hot topic
- 4 trainings – over 175 attendees
- 1 training – December 8<sup>th</sup> – Johnson County Fairgrounds



## Kansas Youth Projects

- 2009 County Fairs – 67 Counties Reported
- 841 Market Goats
- 420 Breeding Goats (64 Dairy goats)
- 893 Market Lambs
- 247 Breeding Ewes





## New K-State Sheep & Meat Goat Center Update

- Estimated ground breaking = March 2011
- Estimated completion = December 2011
- New Unit Manager hired – Kalen Poe – August 2010



## QUESTIONS

