Proceedings

2023

Virtual Shepherd's Symposium

January 11 & 12, 2023

7-9 PM Eastern

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SYMPOSIUM PROGRAM

Wednesday, January 11th, 7 - 9 PM

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- **Understanding and Using Forage Tests and Feed Tags –** *Kevin Spurlin, Virginia Cooperative Extension – Grayson County*

- **Lamb Market Situation and Outlook -** *Dr. David Anderson, Professor and Extension Specialist - Livestock and Food Product Marketing, Texas A&M University; and Matthew Sponaugle, Virginia Department of Agriculture and Consumer Services*

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- **Sheep Health Tips and New Antibiotic Policies** - *Dr. Kevin Pelzer, Virginia-Maryland College of Veterinary Medicine*

- **Back to the Basics With Parasite Control** - *Dr. Scott Bowdridge, West Virginia University*

- **Update from ASI** - *Lisa Weeks, ASI Executive Board - Region II Director, Virginia*

- **Virginia Sheep Industry Updates -** *reports from Virginia Dept. of Agriculture and Consumer Services - Tabby Moore, DVM; Virginia Sheep Industry Board - Matthew Sponaugle; and Virginia Sheep Producers Association - Gary Hornbaker*

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Dr. Dan Morrical
Professor Emeritus, Iowa State University
Premier 1 Production Expert
morrical@iastate.edu

Dr. Dan Morrical grew up in Indiana on a small farm with sheep and row crop. He attended Purdue University where he received a BS in Animal Science in 1977. He was active in Block and Bridle and the Livestock judging team. He completed his Masters and PhD at New Mexico State University in 1982 and 1984, respectively. He worked as the Iowa State Sheep Specialist for 33 years, where he provided the sheep industry with education efforts through printed fact sheets, ration software balancing tools and presentations in Iowa and throughout the United States. He hosted and organized three national symposiums in 1992, 1997 and 2012 for the NC regional sheep research committee. He has been actively involved with state and national sheep producer groups, having served on the American Sheep Industry Producer Research and Education Committee along with serving as the Chair of ASI Genetic Stakeholders Committee. The National Sheep Improvement Program was co-developed at Iowa State University under Drs. Morrical and Wilson. He currently works part time for Premier 1 Sheep Supplies as their production consultant to sheep and goat producers via the Ask an Expert Service.

Kevin Spurlin
Virginia Cooperative Extension, Agriculture and Natural Resources Agent
Grayson County
spurlink@vt.edu

Kevin Spurlin is a Senior Extension Agent serving in Grayson County, Virginia since 2006. His work focuses on supporting agriculture and natural resource-based businesses, preserving the regions natural assets, and engaging in community development. Kevin's expertise is predominantly in the livestock sector, growing up on his family's dairy farm in Grayson County. He received his B.S. Degree in Dairy Science from Virginia Tech, and his M.S. Degree in Animal Science from the University of Missouri-Columbia. He began his career working for a feed mill formulating feeds and mineral supplements for dairy farms in North Carolina, Southwest Virginia and Northeast Tennessee before moving home to assume the Extension Agent role. While at the feed mill, he learned about manufacturing processes for all classes of livestock feed, which has been invaluable experience that he can share with clients and colleagues alike.

Dr. David P. Anderson
Professor and Extension Specialist - Livestock and Food Product Marketing
Texas A&M University
david.anderson@ag.tamu.edu

David Anderson is a Professor and Texas A&M AgriLife Extension Economist in the department of Agricultural Economics at Texas A&M. His work involves the analysis of livestock market economics and policy. He is originally from Coolidge, Arizona where his father is a cotton farmer. Prior to returning to Texas A&M in 1996, he was a livestock economist at the Livestock Marketing Information Center in Denver. He has received awards for Professional Excellence from the American Agricultural Economics Association, the Outstanding Extension Program Award from the Western and Southern Agricultural Economics Associations, and the Texas A&M University Deputy Chancellor's Distinguished Performance Team Award for Research and Extension.

Dr. Kevin Pelzer
Professor, Production Management Medicine
Virginia-Maryland College of Veterinary Medicine
kpelzer@vt.edu

Dr. Pelzer received a BS from the University of Kentucky and his DVM in 1980 from Tuskegee University. He completed a residency in Food Animal Herd Health and Reproduction and a Masters in Preventive Veterinary Medicine from the University of California, Davis. He is boarded in the American College of Veterinary Preventive Medicine. Dr. Pelzer is currently professor and interim Department Head of the Large Animal Clinical Sciences at the Virginia Maryland College of Veterinary Medicine and his interests are small ruminants and public health. He has been active in continuing education and outreach giving more than 100 presentations to professional and lay groups in Virginia as well as other states and internationally.

Dr. Scott Bowdridge
Professor of Food Animal Production
Division of Animal and Nutritional Sciences
West Virginia University
Scott.Bowdridge@mail.wvu.edu

Scott Bowdridge grew up on a small sheep farm in Southern California raising Rambouillet sheep. He attended Cal State Chico where he participated on their livestock judging team and graduated with a BS in Agriculture Science. After a short stint teaching high school agriculture, Dr. Bowdridge moved to Maine and managed a sheep farm that marketed lamb into restaurants in Boston and NYC. He began studies working with Katahdin sheep and earned his MS in Animal Science from the University of Maine. He then attended Virginia Tech earning his PhD studying immune response in St. Croix sheep to Haemonchus infection. After a postdoctoral fellowship at the University of Medicine and Dentistry of New Jersey, Dr. Bowdridge began his career at WVU. Since then, he and his lab have been studying the mechanism of immune response to parasite infection in sheep using St. Croix and Katahdin sheep. Scott has been at WVU for 12 years where he and his wife Lizzie and their two girls Charlotte and Genevieve are happy to call West Virginia home.

Lisa Weeks
Triple L Farms, Waynesboro, VA
Region II ASI Director
lweeks.lpw@gmail.com

Lisa along with husband, Larry, and daughters, Lexi and Laryn are first-generation shepherds raising Katahdins since 1990. Growing up on a crop farm in Dighton, KS., agriculture was something that simply could not be left behind. After graduating from Kansas State University in 1988 with a bachelor's degree in Textile Science, Lisa moved to Waynesboro, VA, to begin a career in quality assurance and eventually supply chain and data analyst at a company that manufactures polypropylene nonwoven roll goods. She and her husband purchased a 30-acre farm and manage a 50-ewe flock while continuing to work full time off the farm. The Weeks' have been members and supporters of ASI since 1994 and Lisa has served as the Virginia director at the ASI Annual Convention and as a producer member of the Production, Education and Research Council for numerous years. She and her husband have been long time members of the Virginia Sheep Producers Association and were awarded the Roy A. Meek Outstanding Sheep Producer Award in 2016. At the local level, their farm annually hosts students from the veterinary technician program of Blue Ridge Community College for some hands-on field trips for first- and second-year students. The family flock has been enrolled in the National Sheep Improvement Program since 2001 and Lisa is currently serving as NSIP secretary. She is also serving as a board member to the newly formed Eastern Alliance for Production Katahdins.

Tabitha Moore, MS, DVM
Virginia Department of Agriculture and Consumer Services
Regional Field Veterinarian
tabitha.moore@vdacs.virginia.gov

Tabby Moore, MS, DVM is a Regional Field Veterinarian for the Virginia Department of Agriculture and is part of the Scrapie team in the Scrapie Eradication Program for Virginia. She was in large animal practice for 25 years before joining the State Veterinarians. She lives on the family farm near Staunton with her husband and daughter where they raise Limousin and Lim-flex cattle.

Feed costs and lamb crop

Dan Morrical
aka: Dr. Grumpy
morrical@iastate.edu
515-460-1396
Ask an Expert Premier 1

My credentials

Hoosier by birth, Boilermaker by education
Small farm in Indiana
Attended Purdue
    livestock judging and B&B
Graduate school NMSU
    PhD Ruminant Nutrition
Sheep Specialist ISU (33 years)
Production specialist Premier
Co-developer NSIP 1987

Situation

Bioeconomy, Ukraine and weather
Corn price >$250 ton

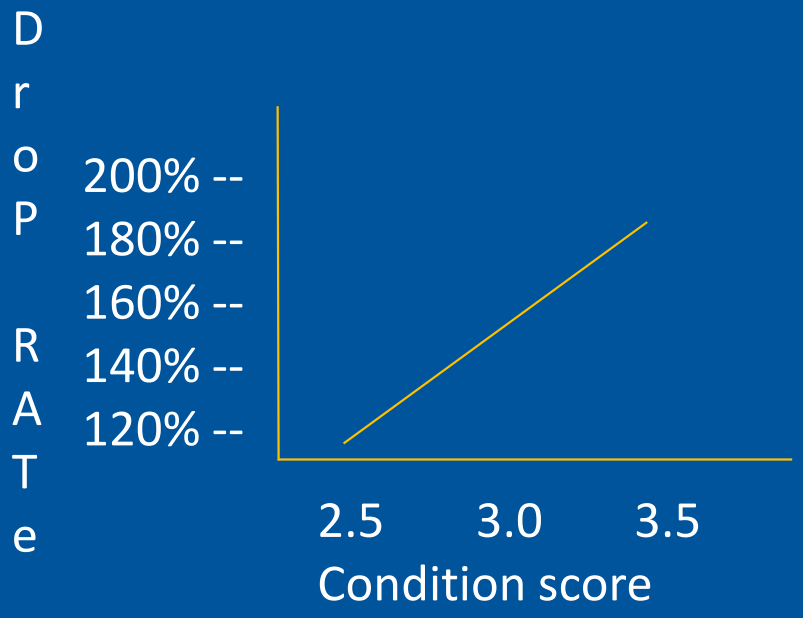
All other feeds have followed suit

Outline

Flushing/Breeding
Late Lactation
Lactation
Alternative Feeds

Flushing

Increase ovulation rate via more energy



Condition scoring

Evaluating ewes for fatness

Monitor changes

1-5 system

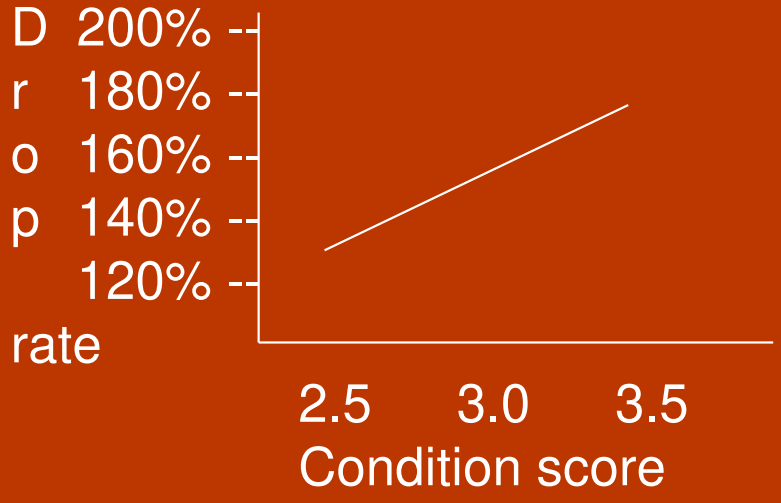
11% weight change equals

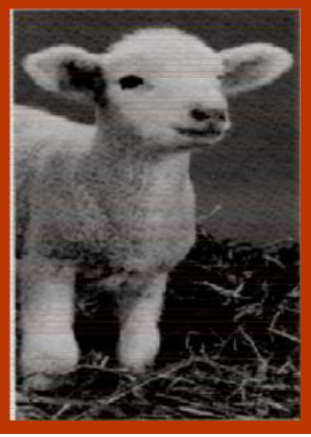
one condition score

Flushing

Rising body condition

Increased ovulation

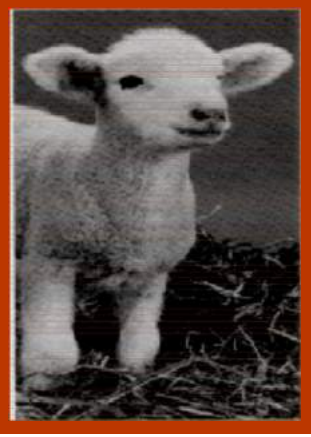




When to breed

Suffolk crosses Oregon

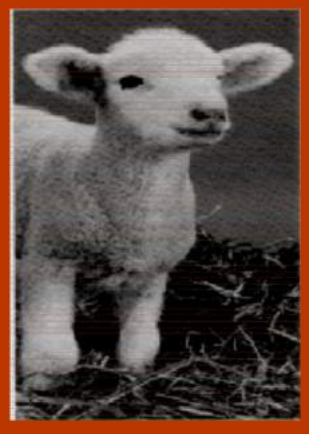
Month	Ovulation Rate
July	.09
August	1.10
September	1.38
October	1.45
November	1.51
December	1.10



When to breed

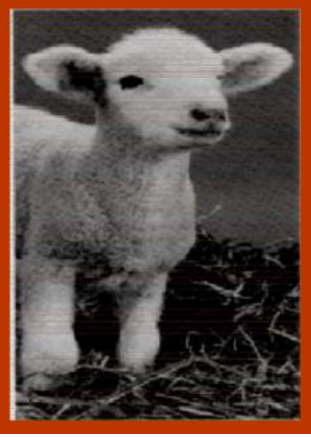
Rambouillet, Idaho

Month	Ovulation Rate
July	1.00
August	1.60
September	1.72
October	1.80
November	1.86
December	1.88
January	1.89
February	1.57



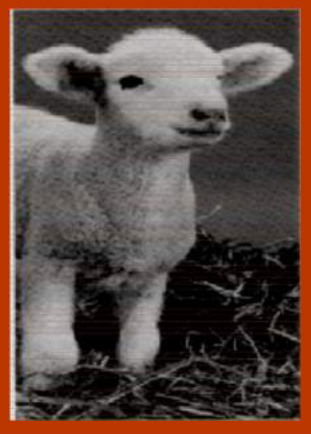
Flock Nutrition during BS

- Positive energy status
  - Thin and average ewes gaining
  - Fat ewes holding their own
- Excess corn >1.25 lbs
- Selenium/Vitamin E status drylot
- Avoid rapid diet changes
- Better pasture or hay



Ewe lamb Management Musts

- Well grown, 70% of mature wt.
- Breed separate
- Expect them to settle
- Cull opens
- Continue on G/D ration



Recommendations for LG Feeding

- Alfalfa hay based diets
  - Corn or other economical energy sources
  - Guideline - 1 LB. concentrate per fetus
- Limit roughage intake
  - Mature ewes with 3 fetus or more
  - All ewe lambs
- Low quality roughage as base ration require both protein and energy supplementation
- Low energy diets with poor roughage's may respond to escape protein - MLC, 1983

Consequences of Underfeeding

Weak, small lambs with high mortality

Reduced colostrum quality and quantity

Retarded weight gain both pre & post weaning

Reduced peak milk yield and less total production

Decreased re-breeding success

Reduced wool production via fewer secondary follicles

Late Gestation Rations

175 pound ewe

	13 lb S	11.5 lbTw	9.5 lb Tr
Brome/alfalfa[a]	4	4	3
Corn	1	1.5	2.5

[a] Hay quality good, 13.9 % CP and 56% TDN

Trace mineral salt and Vitamin E

Late Gestation Rations

120 pound ewe lamb

	10 lb S	8.5 lbTw
Brome/alfalfa[a]	2	1.75
Corn	1.5	2.25

[a] Hay quality good, 13.9 % CP and 56% TDN

Trace mineral and Vitamin E

Vitamin E

100 IU/day/head extra above feed E

14 d pre-lambing through 35 d lactation

Super prolific flocks 400 IU

Mineral source of E is inadequate

- 20 pounds of mineral mixed with
- 4 pounds of E (20K IU/lb)
- assumes ½ ounce intake per day

Iodine

Lactation Ration = .8 ppm or mg/kg

Most mineral mixtures are short

needs to be 140 ppm in mineral with .5 ounce intake levels

Solutions free choice iodized salt ???

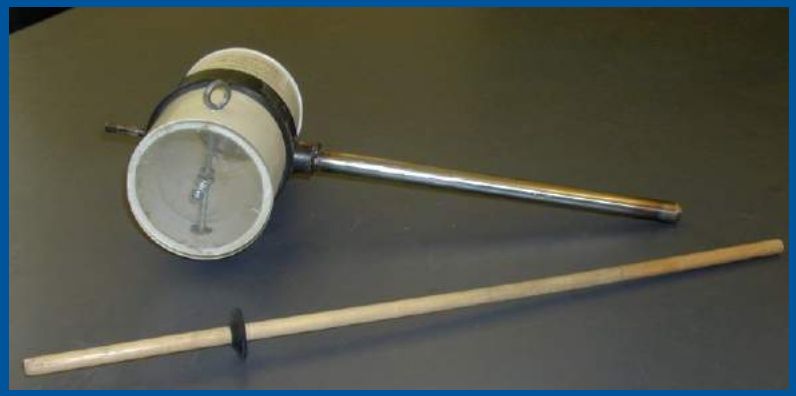
Spike mineral source with iodine (EDDI)

Nutrient Comparisons

Hays are the most variable

Core test cost $20-$25 per lot

Basic NIRS



Iowa Hay Quality Survey

Hay type	Crude protein		TDN	
Grass	Ave.	Range	Ave.	Range
1st cut	11.6	(6-20)	55.7	(47-67)
all others	15.2	(12-20)	61.8	(57-70)
Mixed				
1st	13.9	(8-22)	56.1	(41-69)
2nd	16.8	(10-22)	59.6	(47-70)
3rd	18.3	(11-23)	62.4	(49-73)
Legumes				
1st	16.9	(10-22)	56.7	(48-69)
2nd	18.3	(14-22)	57.7	(45-68)
3rd	19.9	(13-23)	59.4	(47-70)

Corn is still cheapest feed

$7.56/bushel = $270/ton

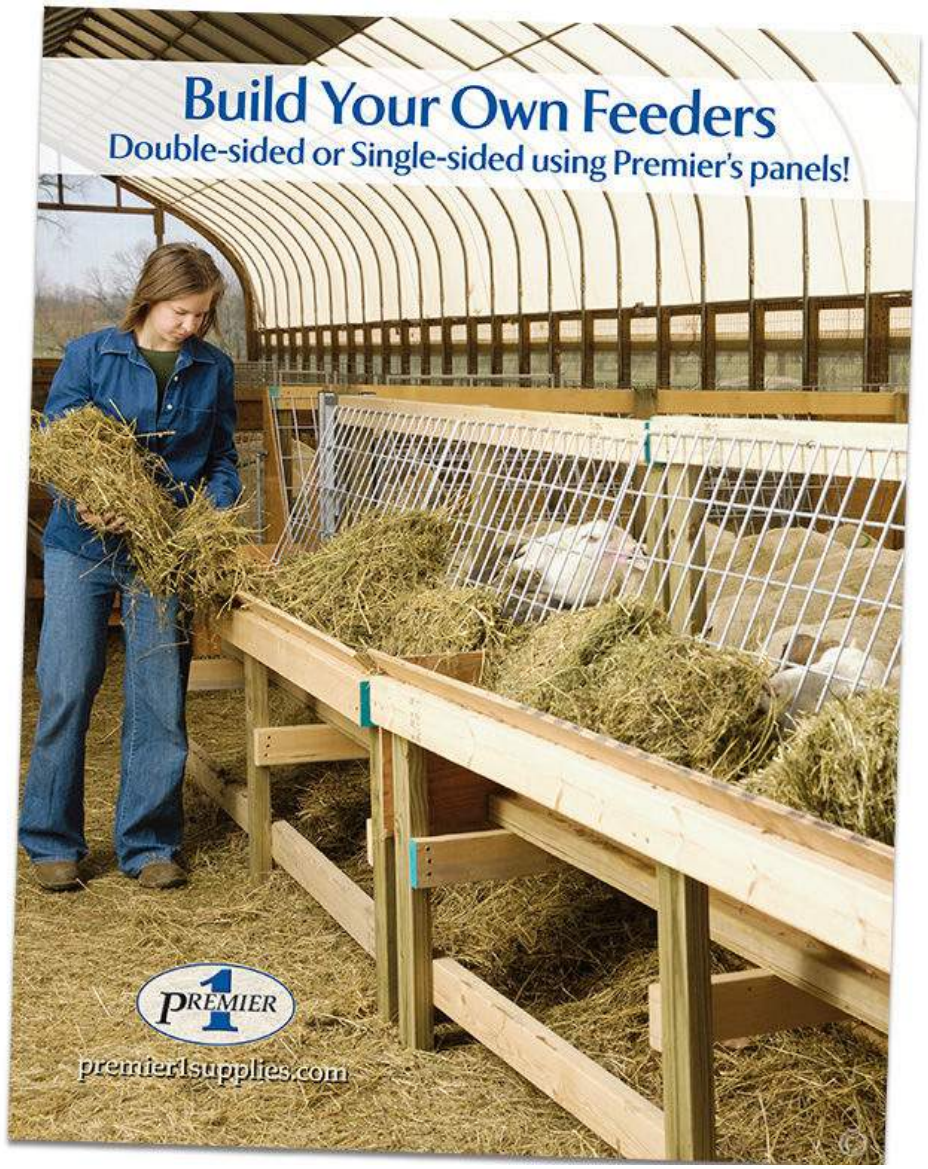
- minimal waste
- high energy density

$.135/lb / 77% TDN = $.175/lb TDN

Hay 50%TDN = $175/t on TDN basis

- 2000*.5=1000 lbs TDN
- $140/t with 20% waste
  - (175*.80)


Old Style feeders
waste is an issue


Build Your Own Feeders
Double-sided or Single-sided using Premier's panels!
PREMIER 1
premier1supplies.com

DGM

Limit fed hay to ewe lambs no waste

DGM:ISU:2007

Poor storage

Not covered or on rock or tires

Rows are too close for air

String versus wrap


Net wrapped bales
Need to be on tires

Covered Hay reduce storage losses by 1/3rd

Feeding correctly

Portion control (big packages)

Monitor condition score

Multiple management groups

Know requirements

Over feeding protein

Using byproducts

Feeding correctly

Contact me through Premier 1 ask and expert

Purchase Sheep Brands from ISU

Hire me as your personal nutritionist

$100 per hour or $1000 per year

Sheep Brands Ration Software

BRaNDS -- Sheep Companion Module -- Standard Edition
BRaNDS -- Sheep Companion Module -- Standard Edition (iastate.edu)

BRaNDS -- Sheep Companion Module -- Professional Edition
BRaNDS -- Sheep Companion Module -- Professional Edition (iastate.edu)

Graze instead of feed

Improve pasture management

- fertility
- rotational grazing

Crop residue

Cover crops/annuals

Grazing days are 30% cost of feeding

Alternative feeds*

	CGF	DDGS	CORN	SB hulls
DM	90%	90%	87%	91%
TDN	72%	80%	77%	70%
CP	18%	27%	6.5%	12%
Ca	.05%	.20%	.02%	.49%
P	1.0%	.72%	.35%	.21%

** As fed basis*

Precautions

DDGS and CGF are not the same

DDGS have high fat levels

- limit inclusion to 33% or less
- sulfur may reduce selenium absorption
- sulfur may cause polio

Shelf life of wet products

Mineral options

Basic sheep mineral:

10-12% calcium

6-8 % phosphorous

20-50% salt

Cost per bag or block $18 to $25

Intakes 2/3rds to 1 ounce/day

Annual cost per ewe $11.40 plus

Mineral options

Premier TM salt premix:

1.2% calcium

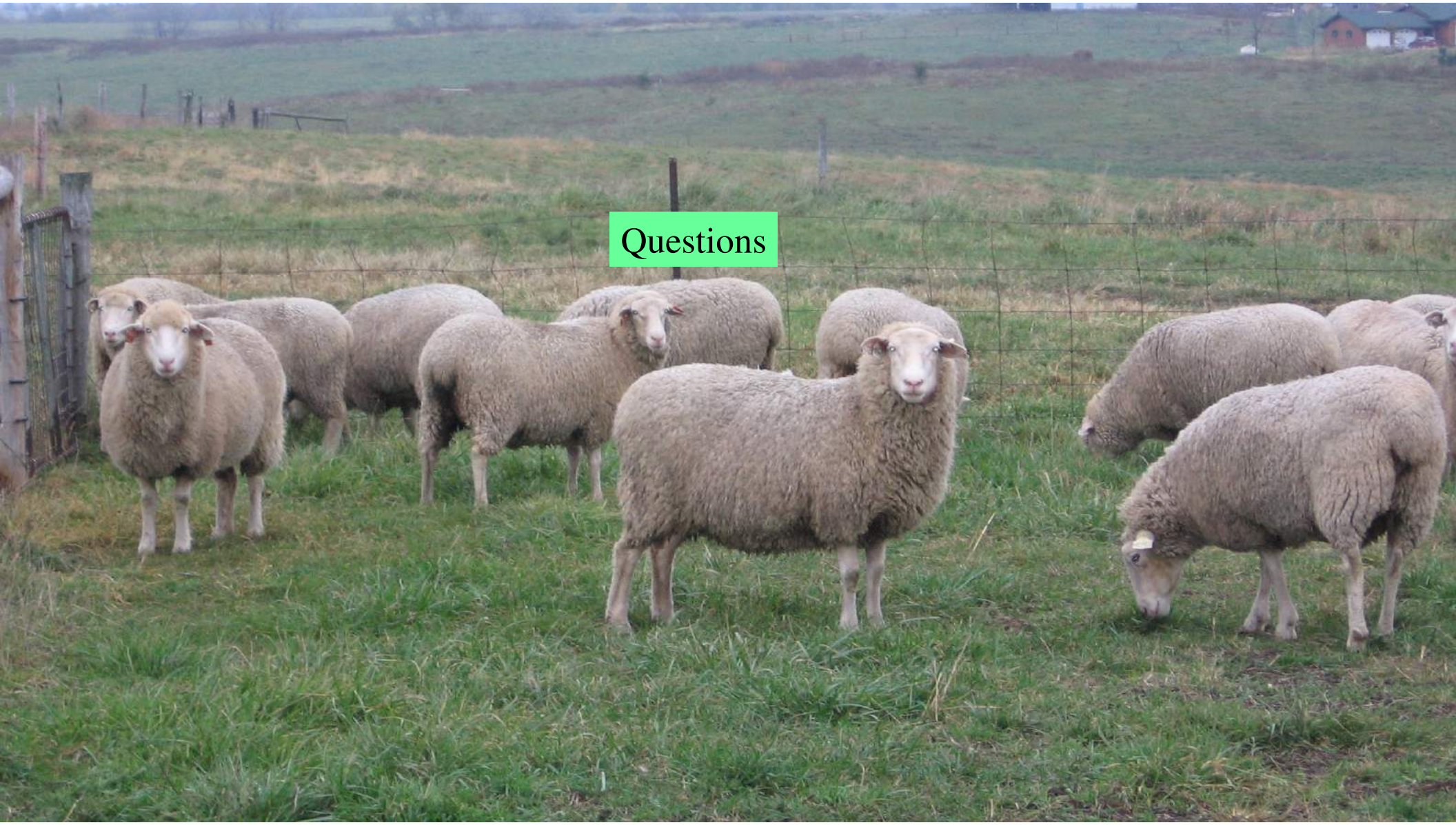
0% phosphorous

90% salt

Cost $18 to $20/55 pound

Intakes .25 ounce/day

Annual cost per ewe <$3.00


Questions

Virginia Cooperative Extension
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Understanding and Using Forage Tests and Feed Tags

Kevin Spurlin

Extension Agent

Grayson County, Virginia

Agenda

1. Understand why we conduct forage analysis
2. Be able to read a forage analysis
3. Be able to allocate forages to appropriate animals
4. Be able to read a feed tag to determine appropriateness as a forage supplement

Why forage test?

$22.50 per sample currently (NIR1)

What do I get for that investment?

- ✓Forage allocation
- ✓Enhance forage production
- ✓Forage purchase decisions
- ✓Determine supplementation needs

$36 per sample (NIR2)

- ✓Same as NIR1 with wet chemistry analysis of minerals

1ST CUT HAY SAMPLE

BARN MIXED GRASS + CLOVER HAY

SAMPLE INFORMATION			
Lab ID:	32419 329	Version:	1.0
Crop Year:	2022	Series:	
Feed Type:	GRASS FORAGE	Cutting#:	1
Package:	BASIC NIR		

NIR ANALYSIS RESULTS	
Moisture	13.9
Dry Matter	86.1

PROTEINS	% SP	% CP	% DM
Crude Protein			9.2
Adjusted Protein		91.3	8.4
Soluble Protein		32.6	3.0
Ammonia (CPE)	32.8	10.7	0.98
ADF Protein (ADICP)		14.8	1.36
NDF Protein (NDICP)		32.1	2.94
NDR Protein (NDRCP)			
Rumen Degr. Protein		66.3	6.1
Amino Acid Protein, Total			

FIBER	% NDF	% DM
ADF	61.8	42.3
aNDF		68.5
aNDFom		66.3
NDR (NDF w/o sulfite)		
Crude Fiber		
Lignin	10.1	6.94
NDF Digestibility (12 hr)		
NDF Digestibility (24 hr)		
NDF Digestibility (30 hr)		
NDF Digestibility (72 hr)		
NDF Digestibility (120 hr)		
NDF Digestibility (240 hr)		
uNDF (12 hr)		
uNDF (30 hr)		
uNDF (120 hr)		

MINERALS	
Ash (%DM)	5.34
Calcium (%DM)	0.53
Phosphorus (%DM)	0.17
Magnesium (%DM)	0.22
Potassium (%DM)	1.32
Sulfur (%DM)	
Sodium (%DM)	
Chloride (%DM)	
Iron (PPM)	
Manganese (PPM)	
Zinc (PPM)	
Copper (PPM)	
Molybdenum (PPM)	

QUALITATIVE	
pH	
Total VFA (%DM)	
Lactic Acid (%DM)	
Lactic as % of Total VFA	
Acetic Acid (%DM)	
Butyric Acid (%DM)	
1, 2 Propanediol (%DM)	
Nitrate Ion (%DM)	
Nitrate-Nitrogen, ppm	
Soil Contamination Probability	
NIR Statistical Confidence	

ENERGY & INDEX CALCULATIONS	
TDN (%DM)	55.4
Net Energy Lactation (Mcal/lb)	0.56
Net Energy Maintenance (Mcal/lb)	0.53
Net Energy Gain (Mcal/lb)	0.27
ME (Mcal/lb)	0.91
AA Protein as % of Total Protein	

2ND CUT HAY SAMPLE

2ND CUT MIXED GRASS+CLOVER HAY

SAMPLE INFORMATION			
Lab ID:	33045 224	Version:	1.0
Crop Year:	2022	Series:	
Feed Type:	MMG FORAGE	Cutting#:	
Package:	BASIC NIR		

NIR ANALYSIS RESULTS	
Moisture	13.1
Dry Matter	86.9

PROTEINS	% SP	% CP	% DM
Crude Protein			11.3
Adjusted Protein			11.3
Soluble Protein		32.1	3.6
Ammonia (CPE)	41.6	13.4	1.51
ADF Protein (ADICP)		11.2	1.27
NDF Protein (NDICP)		29.6	3.35
NDR Protein (NDRCP)			
Rumen Degr. Protein		66.0	7.5
Amino Acid Protein, Total			

FIBER	% NDF	% DM
ADF	63.0	38.9
aNDF		61.7
aNDFom		59.0
NDR (NDF w/o sulfite)		
Crude Fiber		
Lignin	8.75	5.40
NDF Digestibility (12 hr)		
NDF Digestibility (24 hr)		
NDF Digestibility (30 hr)		
NDF Digestibility (72 hr)		
NDF Digestibility (120 hr)		
NDF Digestibility (240 hr)		
uNDF (12 hr)		
uNDF (30 hr)		
uNDF (120 hr)		

MINERALS	
Ash (%DM)	7.39
Calcium (%DM)	0.53
Phosphorus (%DM)	0.22
Magnesium (%DM)	0.25
Potassium (%DM)	1.65
Sulfur (%DM)	
Sodium (%DM)	
Chloride (%DM)	
Iron (PPM)	
Manganese (PPM)	
Zinc (PPM)	
Copper (PPM)	
Molybdenum (PPM)	

QUALITATIVE	
pH	
Total VFA (%DM)	
Lactic Acid (%DM)	
Lactic as % of Total VFA	
Acetic Acid (%DM)	
Butyric Acid (%DM)	
1, 2 Propanediol (%DM)	
Nitrate Ion (%DM)	
Nitrate-Nitrogen, ppm	
Soil Contamination Probability	
NIR Statistical Confidence	

ENERGY & INDEX CALCULATIONS	
TDN (%DM)	58.1
Net Energy Lactation (Mcal/lb)	0.59
Net Energy Maintenance (Mcal/lb)	0.58
Net Energy Gain (Mcal/lb)	0.32
ME (Mcal/lb)	0.97
AA Protein as % of Total Protein	

WET 1ST CUT HAY SAMPLE

CORN FIELD EAST MIXED GRASS+CLOVER

SAMPLE INFORMATION			
Lab ID:	32476 133	Version:	1.0
Crop Year:	2022	Series:	
Feed Type:	GRASS FORAGE	Cutting#:	1
Package:	BASIC NIR		

NIR ANALYSIS RESULTS	
Moisture	23.3
Dry Matter	76.7

PROTEINS	% SP	% CP	% DM
Crude Protein			10.2
Adjusted Protein		88.2	9.0
Soluble Protein		24.9	2.5
Ammonia (CPE)	39.8	9.9	1.01
ADF Protein (ADICP)		19.0	1.94
NDF Protein (NDICP)		47.1	4.80
NDR Protein (NDRCP)			
Rumen Degr. Protein		62.5	6.4
Amino Acid Protein, Total			

FIBER	% NDF	% DM
ADF	66.0	44.2
aNDF		66.9
aNDFom		63.7
NDR (NDF w/o sulfite)		
Crude Fiber		
Lignin	12.6	8.40
NDF Digestibility (12 hr)		
NDF Digestibility (24 hr)		
NDF Digestibility (30 hr)		
NDF Digestibility (72 hr)		
NDF Digestibility (120 hr)		
NDF Digestibility (240 hr)		
uNDF (12 hr)		
uNDF (30 hr)		

MINERALS	
Ash (%DM)	7.34
Calcium (%DM)	0.71
Phosphorus (%DM)	0.23
Magnesium (%DM)	0.28
Potassium (%DM)	1.91
Sulfur (%DM)	
Sodium (%DM)	
Chloride (%DM)	
Iron (PPM)	
Manganese (PPM)	
Zinc (PPM)	
Copper (PPM)	
Molybdenum (PPM)	

QUALITATIVE
pH
Total VFA (%DM)
Lactic Acid (%DM)
Lactic as % of Total VFA
Acetic Acid (%DM)
Butyric Acid (%DM)
1, 2 Propanediol (%DM)
Nitrate Ion (%DM)
Nitrate-Nitrogen, ppm

Soil Contamination Probability	
NIR Statistical Confidence	

ENERGY & INDEX CALCULATIONS	
TDN (%DM)	52.2
Net Energy Lactation (Mcal/lb)	0.53
Net Energy Maintenance (Mcal/lb)	0.47
Net Energy Gain (Mcal/lb)	0.22
ME (Mcal/lb)	0.85
AA Protein as % of Total Protein	

1ST CUT BALEAGE SAMPLE

WRAPPED MIXED GRASS + CLOVER BA

SAMPLE INFORMATION			
Lab ID:	32419 305	Version:	1.0
Crop Year:	2022	Series:	
Feed Type:	MMG FORAGE	Cutting#:	1
Package:	BASIC NIR		

NIR ANALYSIS RESULTS	
Moisture	39.7
Dry Matter	60.3

PROTEINS	% SP	% CP	% DM
Crude Protein			12.1
Adjusted Protein		92.6	11.2
Soluble Protein		38.8	4.7
Ammonia (CPE)	22.3	8.6	1.04
ADF Protein (ADICP)		14.2	1.71
NDF Protein (NDICP)		29.5	3.56
NDR Protein (NDRCP)			
Rumen Degr. Protein		69.7	8.6
Amino Acid Protein, Total			

FIBER	% NDF	% DM
ADF	62.2	35.9
aNDF		57.7
aNDFom		54.3
NDR (NDF w/o sulfite)		
Crude Fiber		
Lignin	9.82	5.86
NDF Digestibility (12 hr)		
NDF Digestibility (24 hr)		
NDF Digestibility (30 hr)		
NDF Digestibility (72 hr)		
NDF Digestibility (120 hr)		
NDF Digestibility (240 hr)		
uNDF (12 hr)		
uNDF (30 hr)		
uNDF (120 hr)		

MINERALS	
Ash (%DM)	7.70
Calcium (%DM)	0.57
Phosphorus (%DM)	0.28
Magnesium (%DM)	0.21
Potassium (%DM)	2.06
Sulfur (%DM)	
Sodium (%DM)	
Chloride (%DM)	
Iron (PPM)	
Manganese (PPM)	
Zinc (PPM)	
Copper (PPM)	
Molybdenum (PPM)	

QUALITATIVE	
pH	
Total VFA (%DM)	
Lactic Acid (%DM)	
Lactic as % of Total VFA	
Acetic Acid (%DM)	
Butyric Acid (%DM)	
1, 2 Propanediol (%DM)	
Nitrate Ion (%DM)	
Nitrate-Nitrogen, ppm	

Soil Contamination Probability	
NIR Statistical Confidence	

ENERGY & INDEX CALCULATIONS	
TDN (%DM)	57.8
Net Energy Lactation (Mcal/lb)	0.59
Net Energy Maintenance (Mcal/lb)	0.58
Net Energy Gain (Mcal/lb)	0.32
ME (Mcal/lb)	0.96
AA Protein as % of Total Protein	

2022 Sample Averages Vs Stockpile

Virginia Cooperative Extension
Virginia Tech • Virginia State University

	Cutting	# samples	% TDN	% CP
2022 average mixed hay	1	42	56.3	9.6
2022 average mixed baleage	1	6	57.9	11.1
2022 average mixed hay	2	20	57.0	13.0
Stockpile pasture 12/7/18 Site 1		1	64.2	15.1
Stockpile pasture 12/7/18 Site 2		1	59.6	13.3
Stockpile pasture 1/11/19 Site 1		1	58.3	14.3
Stockpile pasture 1/11/19 Site 2		1	59.7	12.2
Stockpile pasture 2/18/19 Site 2		1	54.9	12.0

Forage Allocation

Who gets the best forage?

- ✓"Money makers"
  - Weaned lambs
  - Ewes 2 weeks before lambing through early lactation
  - Ewes at 2 weeks before breeding through 2 after breeding
- ✓Sensitive animals
- ✓Young

MEDICATED

Type C Medicated Feed

SUPPLEMENT FEED FOR ALL CLASSES OF SHEEP

For the prevention of coccidiosis in young sheep caused by Eimeria ovinoidalis, E. parva, E. bakuensis, and E. crandallis.

ACTIVE DRUG INGREDIENTS

Decoquinate.....0.0033 %
(15.0 mg/lb)

GUARANTEED ANALYSIS

Crude Protein (Min).....16.00 %
THIS INCLUDES NOT MORE THAN 1.00% EQUIVALENT CRUDE PROTEIN FROM NON-PROTEIN NITROGEN
Crude Fat (Min).....4.50 %
Crude Fiber (Max).....10.00 %
Calcium (Ca) (Min).....0.75 %
Calcium (Ca) (Max).....1.25 %
Phosphorus (P) (Min).....0.35 %
Salt (NaCl) (Min).....0.50 %
Salt (NaCl) (Max).....1.00 %
Selenium (Se) (Min).....0.30 ppm
Vitamin A (Min).....10000 IU/LB

468065 2-20

Let's review a basic feed tag!

INGREDIENTS

Processed Grain By-Products, Grain Products, Roughage Products, Plant Protein Products, Molasses Products, Lignin Sulfonate, Soybean Oil, Calcium Carbonate, Animal Protein Products, Salt, Ammonium Chloride, Zinc Sulfate, Natural Flavor, Artificial Flavor, Fumaric Acid, Benzoic Acid (A Preservative), Propionic Acid (a Preservative), Silicon Dioxide, Manganese Sulfate, Verxite, Zinc Oxide, Ammonium Hydroxide, Vegetable Oil, Manganous Oxide, Vitamin D3 Supplement, Propyl Gallate (a preservative), Ferrous Sulfate, Vitamin E Supplement, Potassium Iodide, Vitamin A Supplement, Sodium Molybdate, Sodium Selenite, Cobalt Carbonate.

555A-PLF-G 1

DIRECTIONS

Feed at a rate of 0.756 lbs to sheep/lamb weighing 50 lbs to provide 22.7 mg decoquinate per 100 lb of bodyweight (0.5 mg/kg) per day. Feed at least 28 days during period of exposure to

Now, let's compare some other feed tags!

Disclaimer: Commercial products are named in this publication for informational purposes only. Virginia Cooperative Extension does not endorse these products and does not intend discrimination against other products which also may be suitable.

SHEEP MAINTAINER DX22.7 MEDICATED

Type C Medicated Feed

SUPPLEMENT FEED FOR ALL CLASSES OF SHEEP

For the prevention of coccidiosis in young sheep caused by Eimeria ovinoidalis, E. parva, E. bakuensis, and E. crandallis.

ACTIVE DRUG INGREDIENTS

Decoquinate	0.0025 % (11.35 mg/lb)

GUARANTEED ANALYSIS

Crude Protein (Min)	14.00 %
THIS INCLUDES NOT MORE THAN 1.00% EQUIVALENT CRUDE PROTEIN FROM NON-PROTEIN NITROGEN	
Crude Fat (Min)	3.50 %
Crude Fiber (Max)	16.00 %
Calcium (Ca) (Min)	0.75 %
Calcium (Ca) (Max)	1.25 %
Phosphorus (P) (Min)	0.50 %
Salt (NaCl) (Min)	0.01 %
Salt (NaCl) (Max)	0.51 %
Selenium (Se) (Min)	0.30 ppm
Vitamin A (Min)	2110 IU/LB

Ask yourself:

- ✓ How is this product intended to be used?
- ✓ How is this different from the previous example?

INGREDIENTS

Processed Grain By-Products, Grain Products, Roughage Products, Plant Protein Products, Calcium Carbonate, Soybean Oil, Ammonium Chloride, Lignin Sulfonate, Salt, Potassium Chloride, Zinc Sulfate, Manganese Sulfate, Vitamin D3 Supplement, Zinc Oxide, Manganous Oxide, Vitamin E Supplement, Ferrous Sulfate, Vitamin A Supplement, Potassium Iodide, Sodium Selenite, Sodium Molybdate, Cobalt Carbonate.

559F-PLF-G 2

DIRECTIONS

Feed at a rate of 2 lbs to sheep/lamb weighing 100 lbs to provide 22.7 mg decoquinate per 100 lb of bodyweight (0.5 mg/kg) per day. Feed at least 28 days during period of exposure to coccidiosis or when it is likely to be a hazard.

IMPORTANT

Always provide good quality hay or access to pasture for ruminant animals. **See Reverse Side For Precautionary Statements**

EWE BUILDER
PELLET

MEDICATED

or the prevention of coccidiosis caused by Eimeria ovina, Eimeria crandallis, Eimeria ovinoidalis (Eimeria ninakohlyakimovae), Eimeria parva and Eimeria intricata in sheep maintained in confinement.

ACTIVE DRUG INGREDIENT

Lasalocid ..... 30 g/ton

GUARANTEED ANALYSIS

Crude Protein (Min.)..... 16.00%
(Contains not more than 0.85% equivalent crude protein from non-protein nitrogen)
Crude Fat (Min.) 2.50%
Crude Fiber (Max.) 16.00%
Calcium (Ca) (Min.) 0.75%
Calcium (Ca) (Max.)..... 1.25%
Phosphorus (P) (Min.)..... 0.50%
Salt (NaCl) (Min.)..... 0.75%
Salt (NaCl) (Max.) 1.25%
Selenium (Se) (Min.) .....0.5 ppm
Vitamin A (Min.)..... 7,000 IU/lb.

INGREDIENTS

Wheat Middlings, Soybean Hulls, Corn, Soybean Meal, Calcium Carbonate, Corn Starch, Salt, Magnesium Oxide, Potassium Sulfate, Magnesium Sulfate, Ammonium Chloride, Vitamin A Supplement, Vitamin E Supplement, Vitamin D3 Supplement, Brewers Dried Yeast, Bentonite, Hydrated Sodium Calcium Aluminosilicate, Yeast Extract, Active Dry Yeast, Propionic Acid (a preservative), Acetic Acid, Benzoic Acid (a preservative), Sorbic Acid (a preservative), Calcium Propionate (preservative), Ethoxyquin (preservative), BHA (preservative), Calcium Sulfate, Zinc Sulfate, Ferrous Sulfate, Manganese Sulfate, Ethylenediamine Dihydroiodide, Cobalt Sulfate, Sodium Molybdate, Sodium Selenite, and Natural Flavors.

FEEDING DIRECTIONS

Feed at 1.0 to 3.08 lb. per head per day of 616B to deliver 15 mg to 46.2 mg of Lasalocid. This product is designed to be fed in conjunction with hay or other forage.

CAUTION: The safety of Lasalocid for use in unapproved species has not been established. Do not allow horses or other equines access to feeds containing Lasalocid as ingestion may be fatal.

MEDICATED

A creep feed for lambs. Medicated for the prevention of coccidiosis caused by *Eimeria ovinoidalis, Eimeria parva, Eimeria bakuensis* and *Eimeria crandallis*.

ACTIVE DRUG INGREDIENT

Decoquinate ..... 45.4 g/ton

GUARANTEED ANALYSIS

Crude Protein (Min.) 18.00%
(Contains not more than 1.5% equivalent crude protein from non-protein nitrogen)
Crude Fat (Min.) 5.00%
Crude Fiber (Max.) 10.00%
Calcium (Ca) (Min.) 0.50%
Calcium (Ca) (Max.) 1.00%
Phosphorus (P) (Min.) 0.40%
Salt (NaCl) (Min.) 0.20%
Salt (NaCl) (Max.) 0.70%
Selenium (Se) (Min.) ..... 0.4 ppm
Vitamin A (Min.) ..... 5,700 IU/lb.
Vitamin D_3 (Min.) ..... 1,500 IU/lb.
Vitamin E (Min.) ..... 75 IU/lb.

FEEDING DIRECTIONS

Feed for at least 28 days during periods of exposure or when experience indicates that coccidiosis is likely to be a hazard. Feed along with forage to provide 22.7 mg decoquinate/100 lb. bodyweight per day. One pound of contains 22.7 mg Decoquinate. Always provide access to clean fresh water.

INGREDIENTS

Cracked Corn, Steam-Rolled Barley, Crimped Oats, Roasted Soybeans, Dehulled Soybean Meal, Dehydrated Alfalfa Meal, Soybean Hulls, Extruded Soybean Meal, Linseed Meal, Wheat Middlings, Cane Molasses, Dried Whey, Corn Starch, Active Dry Yeast, Yeast Extract, Yeast Culture, Fish Meal, Calcium Carbonate, Monocalcium Phosphate, Dicalcium Phosphate, Lignin Sulfonate, Ammonium Chloride, Soybean Oil, Dried Condensed Extracted Glutamic Acid Fermentation Product, Dried Condensed Corn Fermentation Solubles, Magnesium Chloride, Salt, Calcium Sulfate, Ferrous Sulfate, Manganese Sulfate, Zinc Sulfate, Cobalt Sulfate, Ethylenediamine Dihydriodide, Sodium Selenite, Sodium Molybdate, Thiamine Mononitrate, Magnesium Oxide, Vitamin A Supplement, Vitamin D-3 Supplement, Vitamin E Supplement, Zinc Amino Acid Complex, Selenium Yeast, Dried *Lactobacillus acidophilus* Fermentation Product, Dried *Enterococcus faecium* Fermentation Product, Dried *Bifidobacterium thermophilum* Fermentation Product, Dried *Bifidobacterium longum* Fermentation Product, Dried *Trichoderma longibrachiatum* Fermentation Extract, Dried *Aspergillus oryzae* Fermentation Extract, *Yucca schidigera* Extract, Dried *Aspergillus niger* Fermentation Extract, Kelp Meal, Dried *Bacillus subtilis* Fermentation Product, Dextrose, Dried *Bacillus lichenformis* Fermentation Product, Dried *Schizosaccharomyces pombe* Fermentation Soluble, Dried *Bacillus coagulans* Fermentation Product, Niacin Supplement, Calcium Pantothenate, Menadione Sodium Bisulfite Complex (Source of Vitamin K Activity), Riboflavin Supplement, Vitamin B12 Supplement, Folic Acid, Biotin, Pyridoxine Hydrochloride, Natural and Artificial Flavors.

What about multi-species feeds?

TRADITIONS 15% COMMODITY MIX (RV)

This feed is designed to be fed to mature cattle, swine and goats.

GUARANTEED ANALYSIS:

Crude Protein	Min. 15.0 %
Lysine	Min. 0.4 %
Crude Fat	Min. 2.5 %
Crude Fiber	Max. 15.0 %
Acid Detergent Fiber (ADF)	Max. 17.0 %

INGREDIENTS:

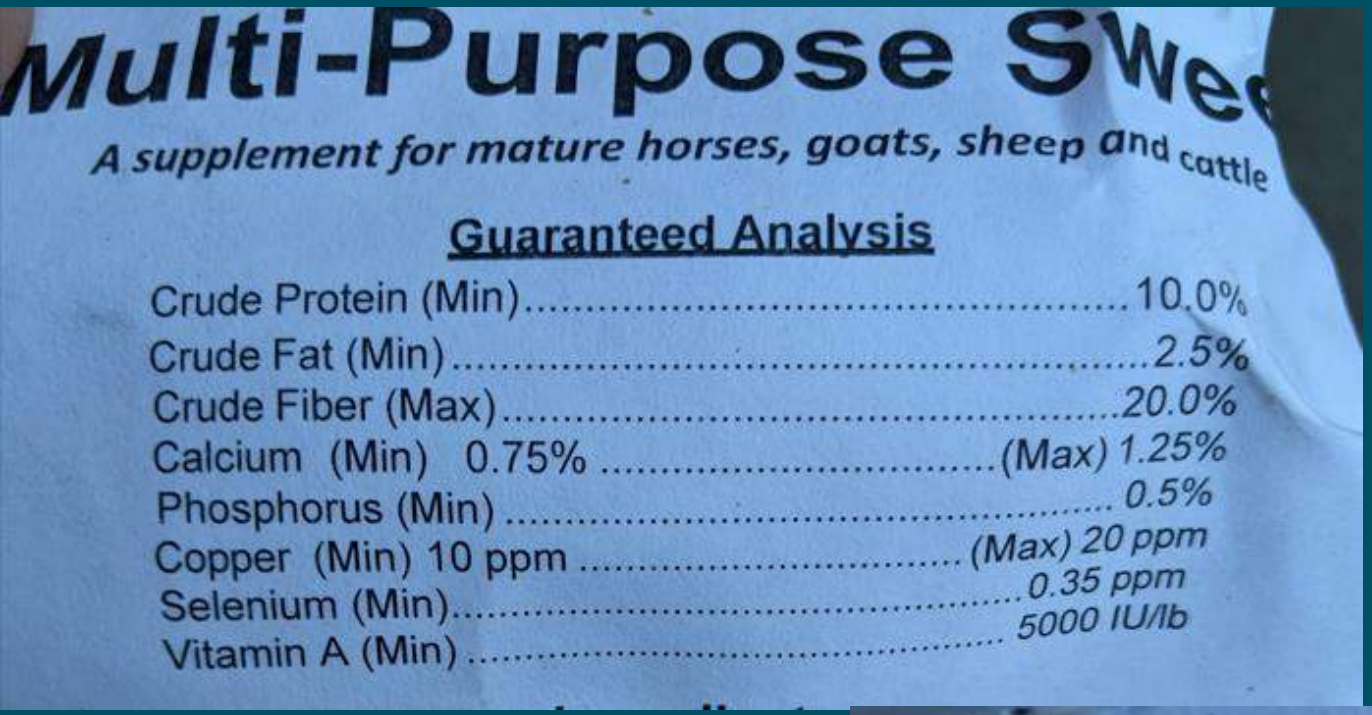
Processed Grain By-Products, Roughage Products, Grain Products, Molasses Products, Natural and Artificial Flavors.

FEEDING DIRECTIONS:

Feed up to 2% of bodyweight daily depending upon desired body condition. Provide adequate amounts of good quality roughage as hay or pasture, an appropriate mineral and vitamin supplement, and fresh, clean water at all times.

CAUTION: Do Not feed to sheep. Store feed in a clean, cool and dry location. Storage area should be free of insects and rodents. Do not allow animals access to feedstuffs that show signs of insect or rodent infestation. Do not allow animals access to hot or moldy feedstuffs at any time – all stale or moldy feed should be removed from bunks.

What about multi-species feeds?

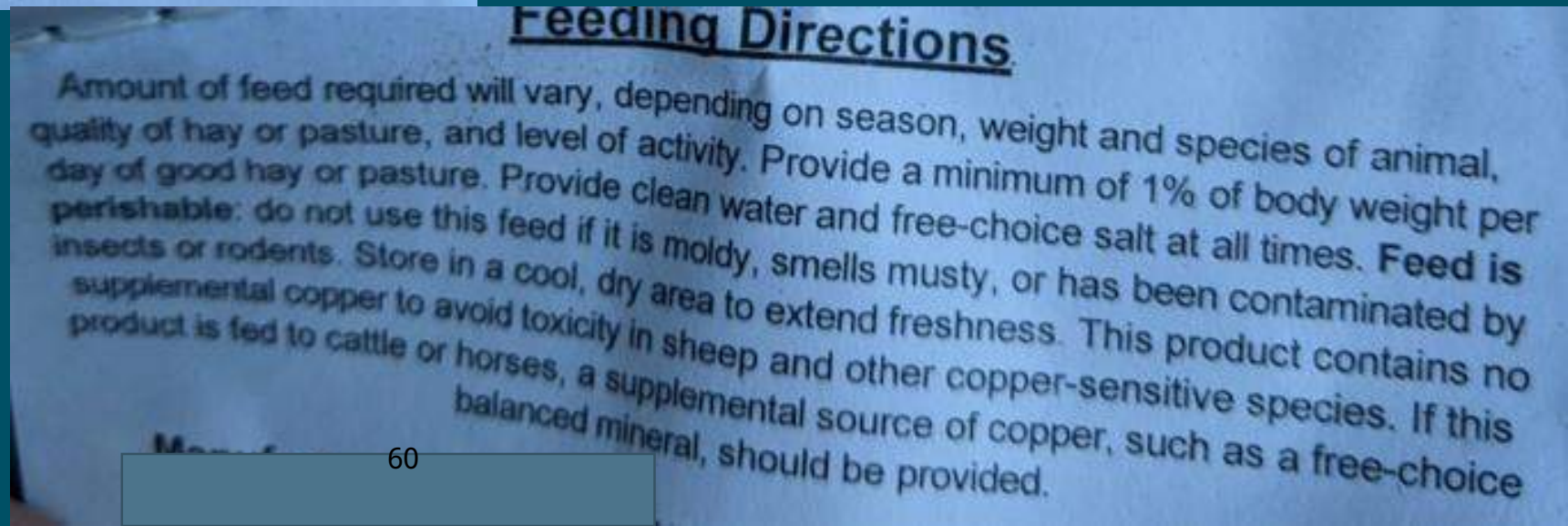


Multi-Purpose Swe

A supplement for mature horses, goats, sheep and cattle

Guaranteed Analysis

Crude Protein (Min)	10.0%
Crude Fat (Min)	2.5%
Crude Fiber (Max)	20.0%
Calcium (Min) 0.75%	(Max) 1.25%
Phosphorus (Min)	0.5%
Copper (Min) 10 ppm	(Max) 20 ppm
Selenium (Min)	0.35 ppm
Vitamin A (Min)	5000 IU/lb



Feeding Directions

Amount of feed required will vary, depending on season, weight and species of animal, quality of hay or pasture, and level of activity. Provide a minimum of 1% of body weight per day of good hay or pasture. Provide clean water and free-choice salt at all times. **Feed is perishable**: do not use this feed if it is moldy, smells musty, or has been contaminated by insects or rodents. Store in a cool, dry area to extend freshness. This product contains no supplemental copper to avoid toxicity in sheep and other copper-sensitive species. If this product is fed to cattle or horses, a supplemental source of copper, such as a free-choice balanced mineral, should be provided.

Take Home Points

- Sample homegrown forages to determine quality
- Use forage sampling in hay purchasing decisions
- Match forage quality with animal needs
- Supplement to cover nutrient deficiencies

- DO IT ALL ECONOMICALLY!

Virginia Cooperative Extension
Virginia Tech • Virginia State University

Thank you

Kevin Spurlin

Extension Agent

spurlink@vt.edu or 276-773-2491

Lamb Market Rollercoaster

Virginia Shepherd's Symposium

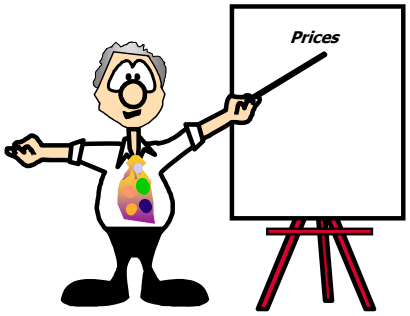
January 11, 2023

David P. Anderson
Professor and Extension Economist

TEXAS A&M AGRILIFE EXTENSION

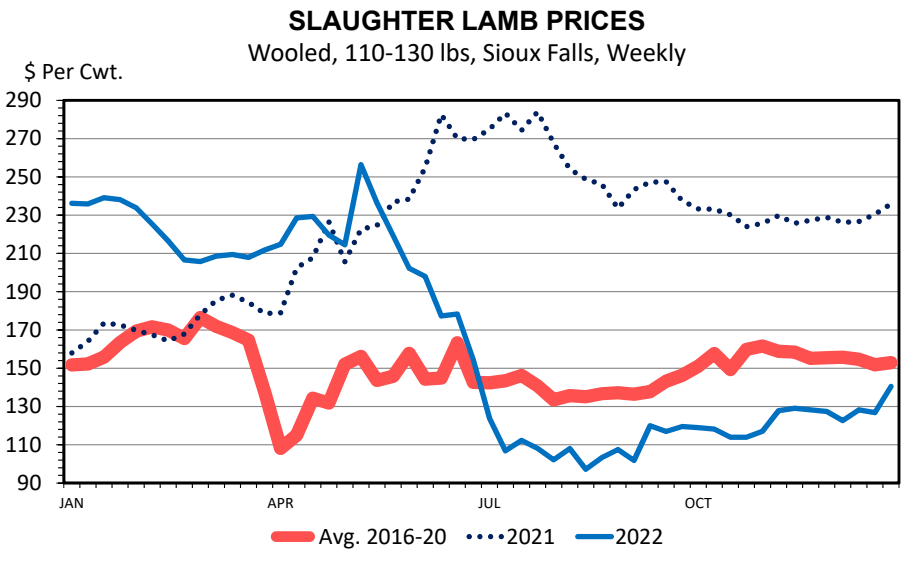
Overview

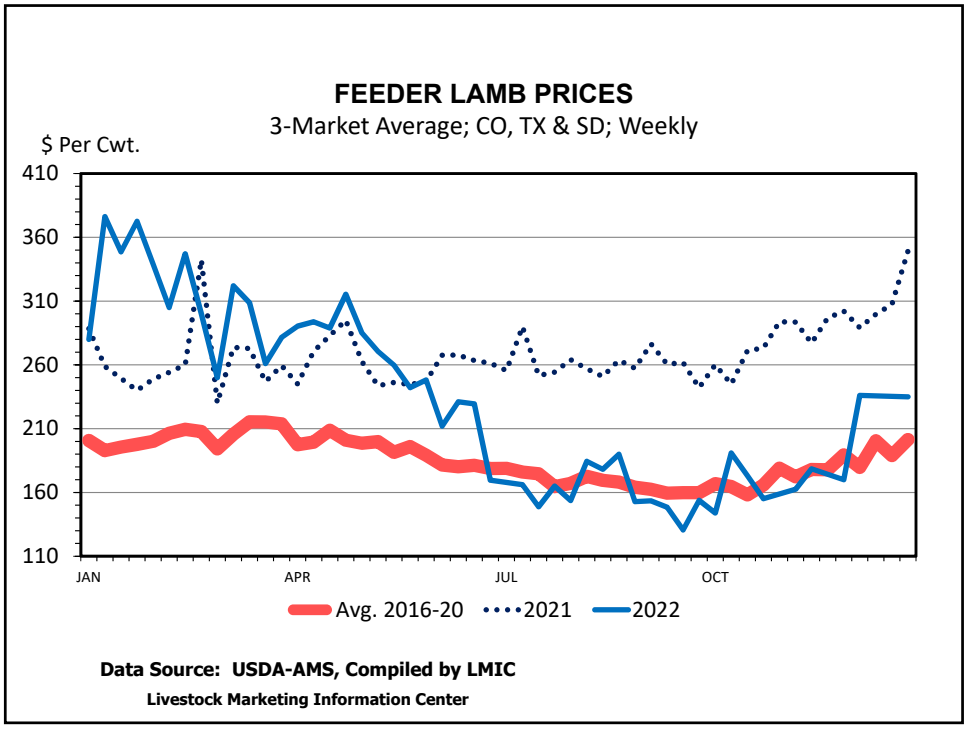
- Usual Suspects
- Demand
- Supplies

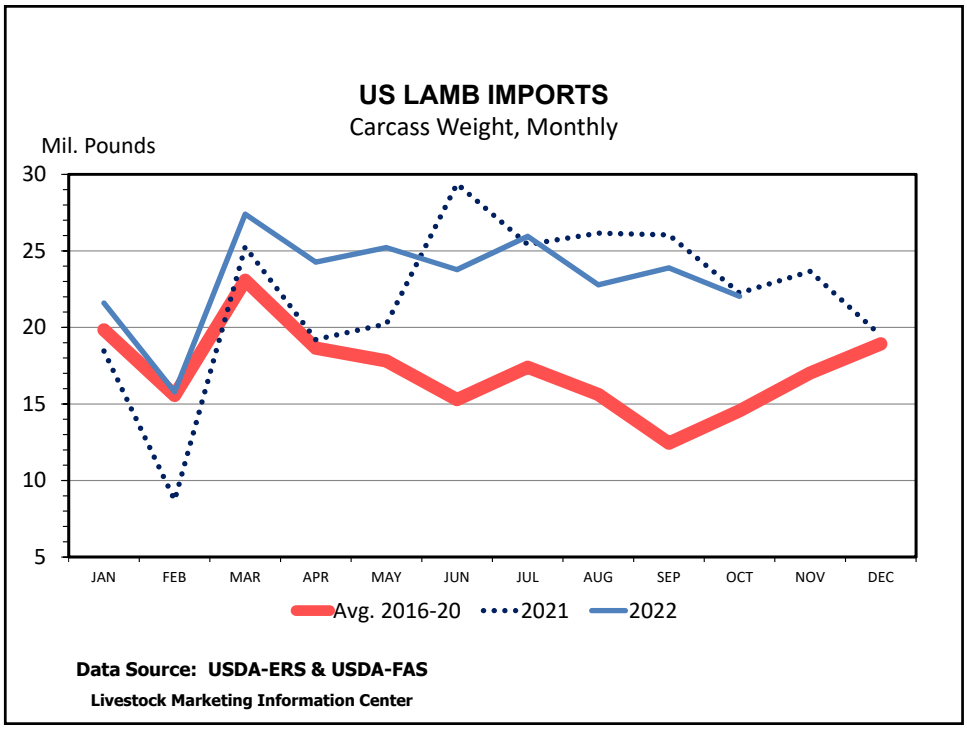


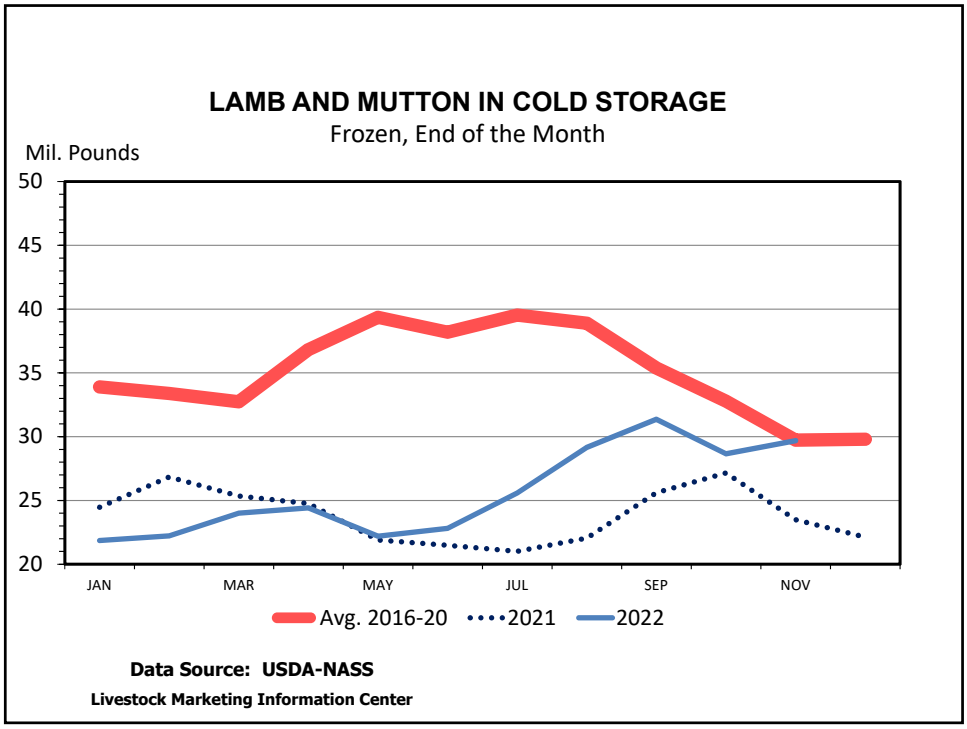
We've Been Here Before

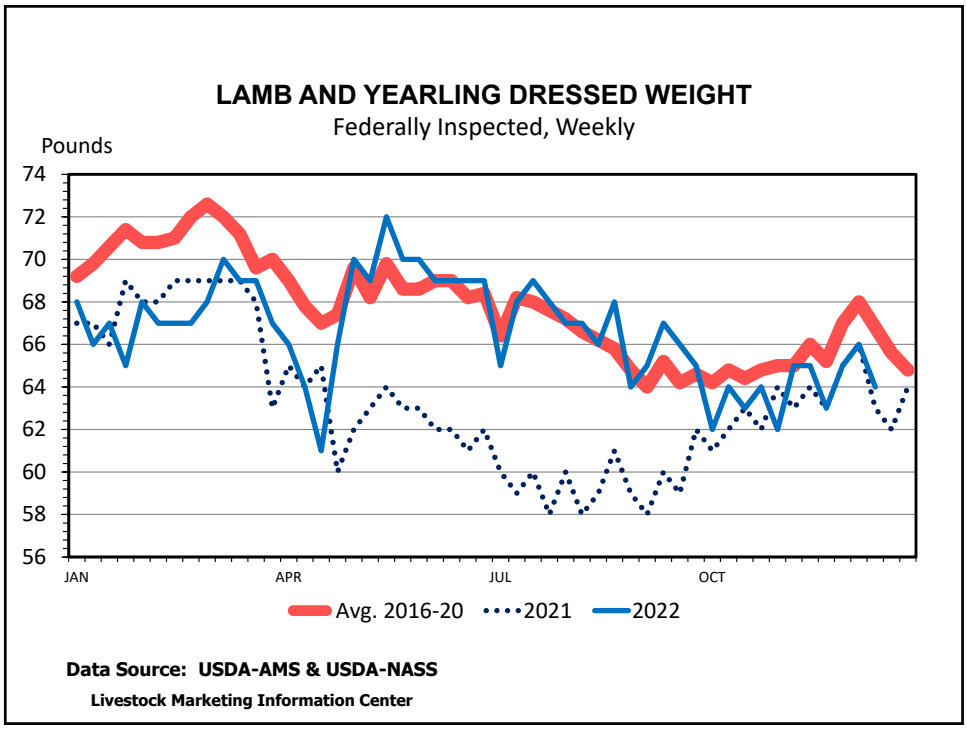
- Collapsing Prices
- Variety of Past Reasons
  - Backed up supplies
  - Over finished, heavy weights, older
  - Imports
  - Cold storage stocks
- A Bit Different This Time




FEEDER LAMB PRICES
3-Market Average; CO, TX & SD; Weekly
$ Per Cwt.
410
360
310
260
210
160
110
JAN
APR
JUL
OCT
Avg. 2016-20
2021
2022
Data Source: USDA-AMS, Compiled by LMIC
Livestock Marketing Information Center


US LAMB IMPORTS
Carcass Weight, Monthly
Mil. Pounds
30
25
20
15
10
5
JAN
FEB
MAR
APR
MAY
JUN
JUL
AUG
SEP
OCT
NOV
DEC
Avg. 2016-20
2021
2022
Data Source: USDA-ERS & USDA-FAS
Livestock Marketing Information Center

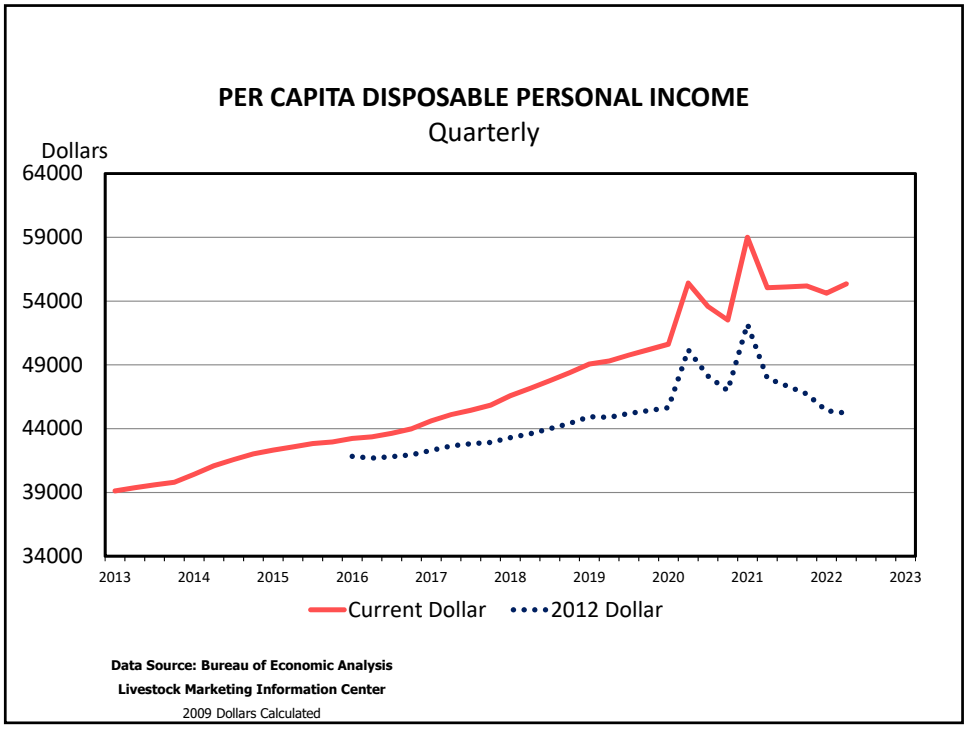

LAMB AND MUTTON IN COLD STORAGE
Frozen, End of the Month
Mil. Pounds
50
45
40
35
30
25
20
JAN
MAR
MAY
JUL
SEP
NOV
Avg. 2016-20
2021
2022
Data Source: USDA-NASS
Livestock Marketing Information Center

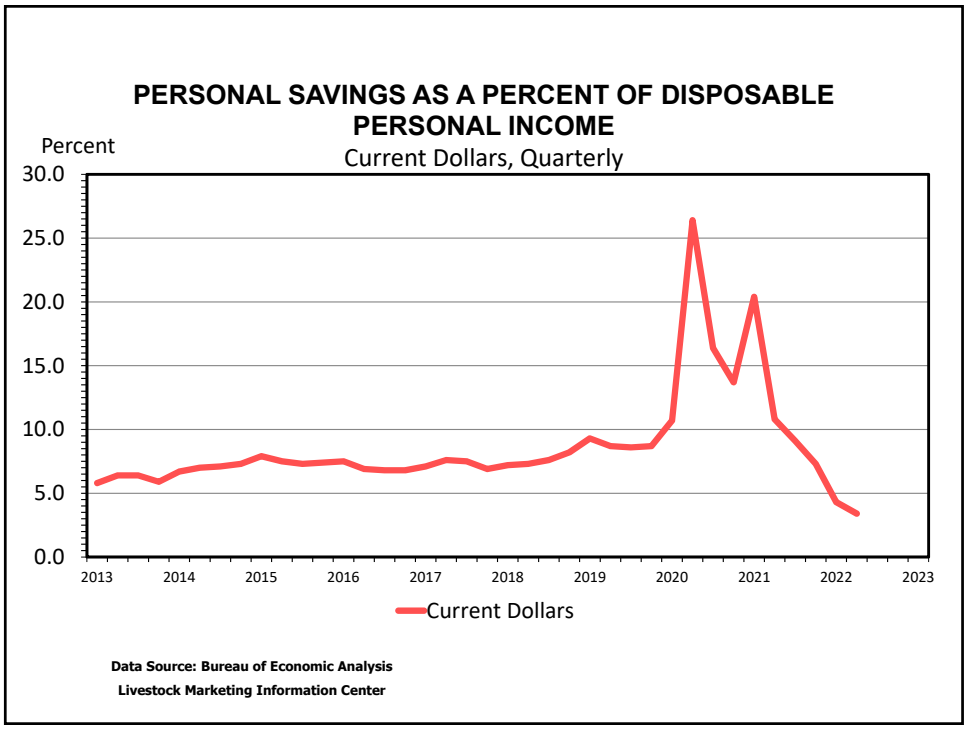

LAMB AND YEARLING DRESSED WEIGHT
Federally Inspected, Weekly
Pounds
74
72
70
68
66
64
62
60
58
56
JAN
APR
JUL
OCT
Avg. 2016-20
2021
2022
Data Source: USDA-AMS & USDA-NASS
Livestock Marketing Information Center

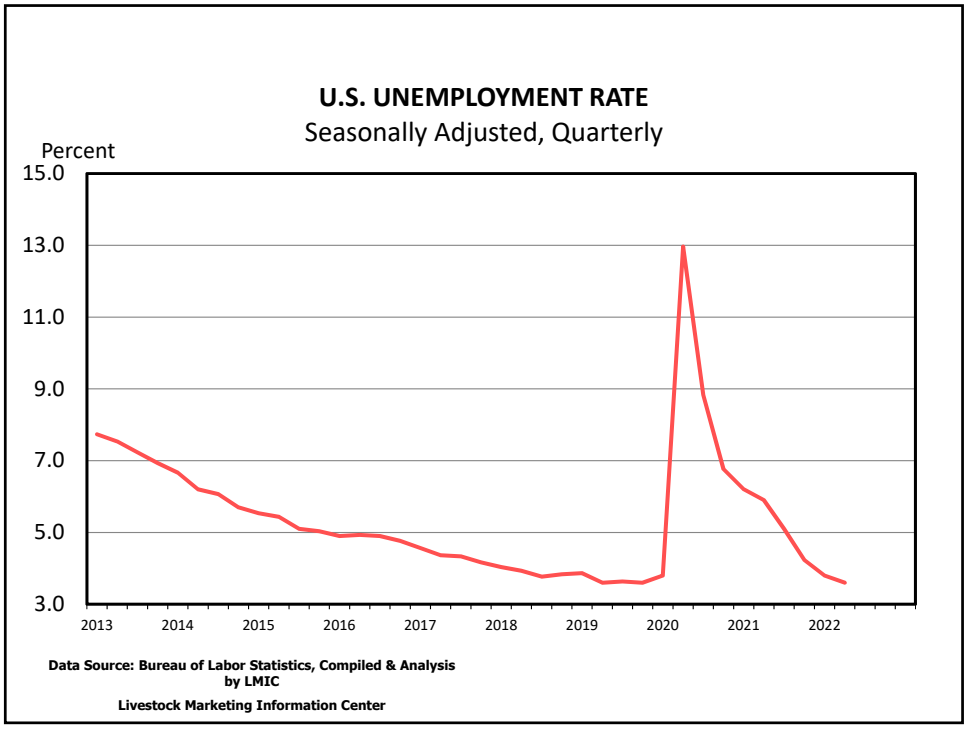
Demand

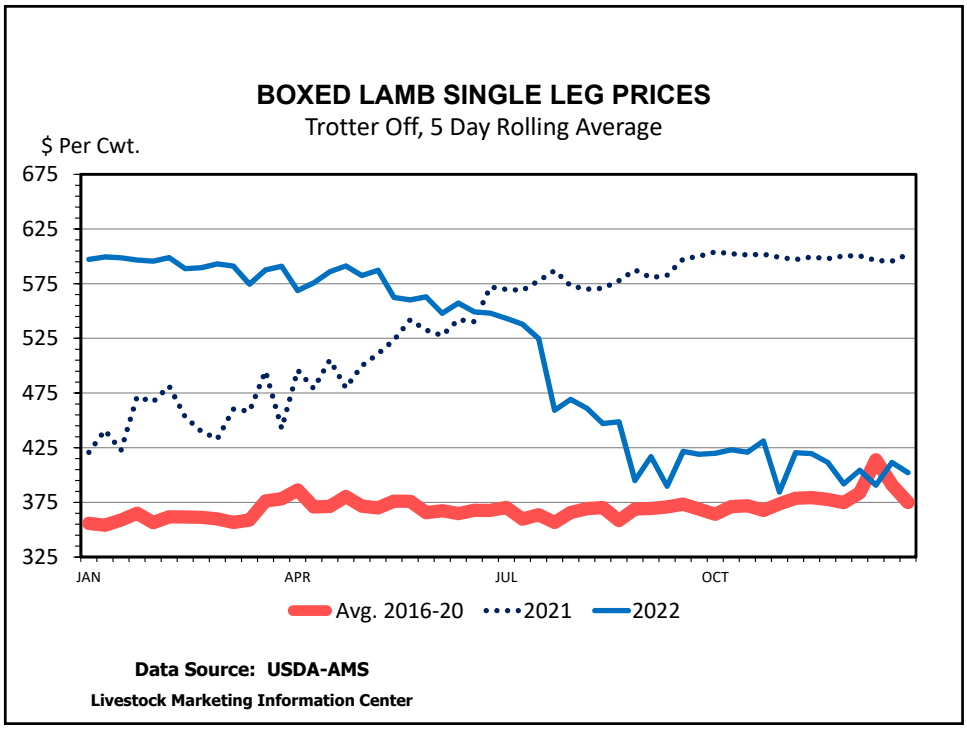
Demand Overview

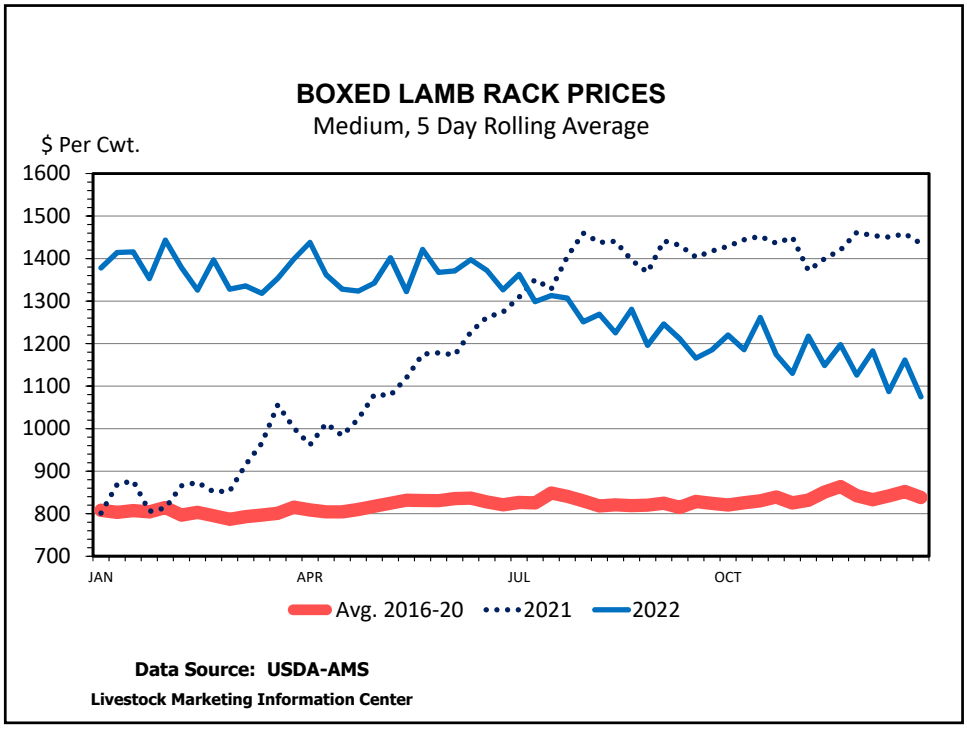
- Success Story in Pandemic
  - People stayed home but, they tried new things
- Bounce Back to Normal
  - Sales struggle
- Now, Economic Struggles
  - Inflation, tight budgets, expensive lamb
  - Demand has shifted – classic shifters: income, other prices, tastes and preferences

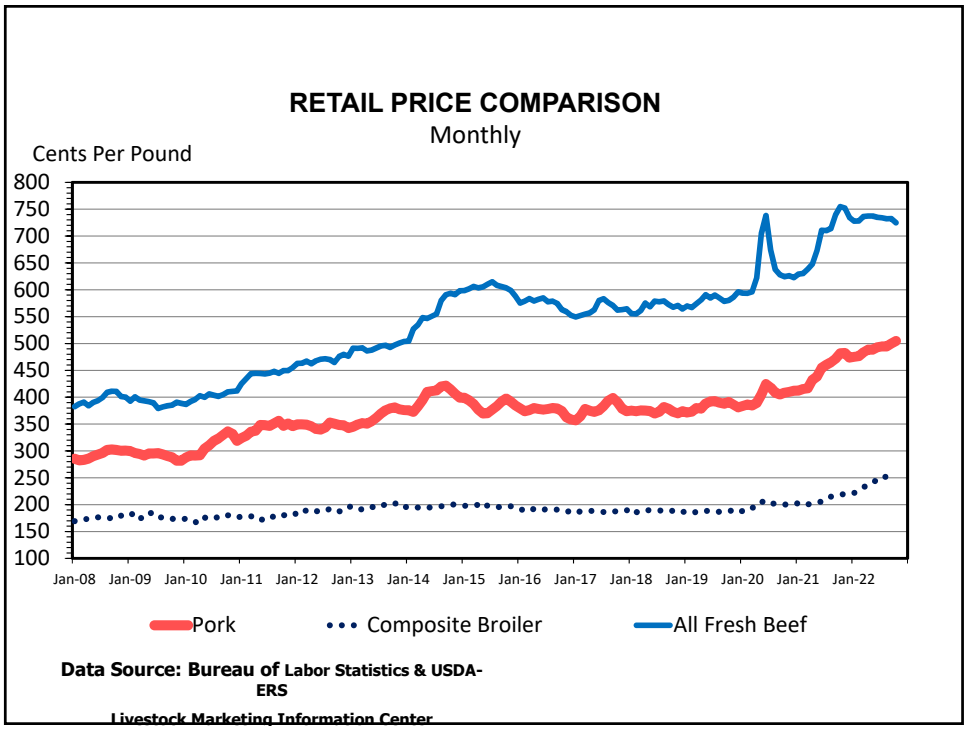

PER CAPITA DISPOSABLE PERSONAL INCOME
Quarterly
Dollars
64000
59000
54000
49000
44000
39000
34000
2013
2014
2015
2016
2017
2018
2019
2020
2021
2022
2023
Current Dollar
2012 Dollar
Data Source: Bureau of Economic Analysis
Livestock Marketing Information Center
2009 Dollars Calculated


PERSONAL SAVINGS AS A PERCENT OF DISPOSABLE PERSONAL INCOME
Current Dollars, Quarterly
Percent
30.0
25.0
20.0
15.0
10.0
5.0
0.0
2013
2014
2015
2016
2017
2018
2019
2020
2021
2022
2023
Current Dollars
Data Source: Bureau of Economic Analysis
Livestock Marketing Information Center


U.S. UNEMPLOYMENT RATE
Seasonally Adjusted, Quarterly
Percent
15.0
13.0
11.0
9.0
7.0
5.0
3.0
2013
2014
2015
2016
2017
2018
2019
2020
2021
2022
Data Source: Bureau of Labor Statistics, Compiled & Analysis by LMIC
Livestock Marketing Information Center

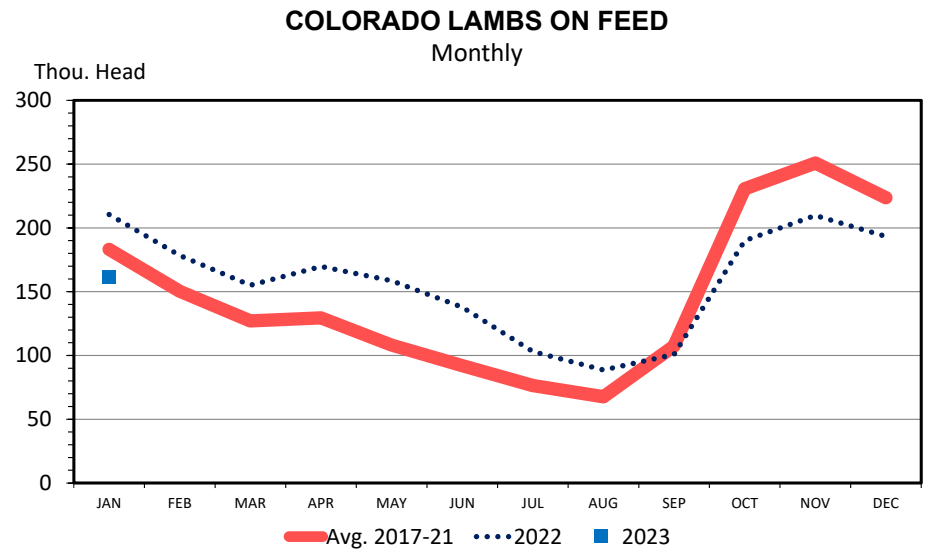

BOXED LAMB SINGLE LEG PRICES
Trotter Off, 5 Day Rolling Average
$ Per Cwt.
675
625
575
525
475
425
375
325
JAN
APR
JUL
OCT
Avg. 2016-20
2021
2022
Data Source: USDA-AMS
Livestock Marketing Information Center

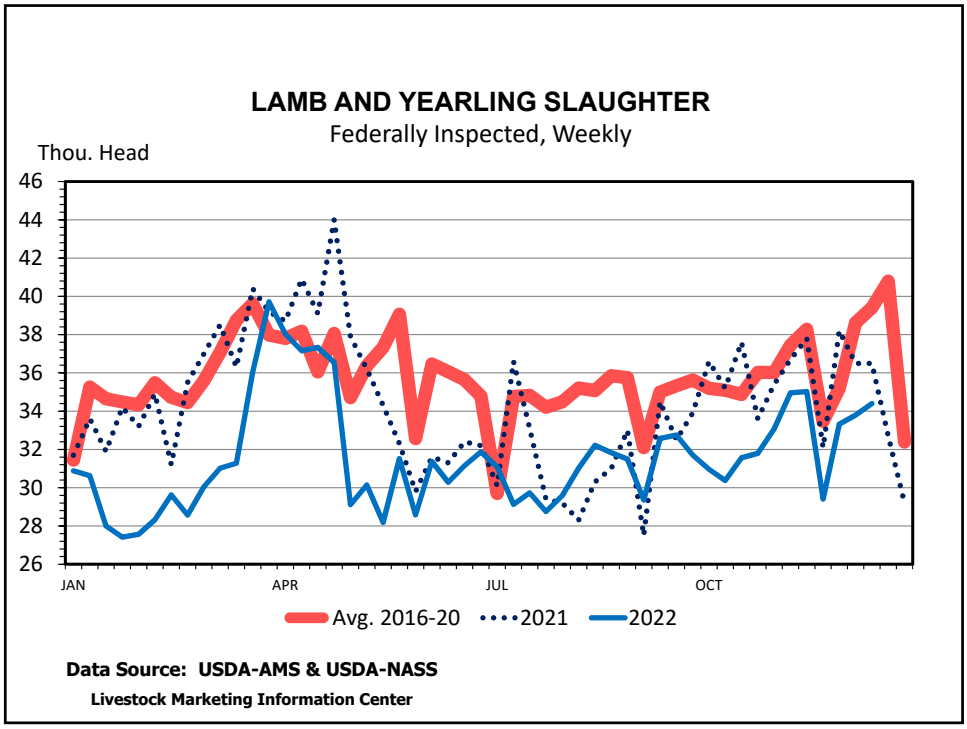

BOXED LAMB RACK PRICES
Medium, 5 Day Rolling Average
$ Per Cwt.
1600
1500
1400
1300
1200
1100
1000
900
800
700
JAN
APR
JUL
OCT
Avg. 2016-20
2021
2022
Data Source: USDA-AMS
Livestock Marketing Information Center

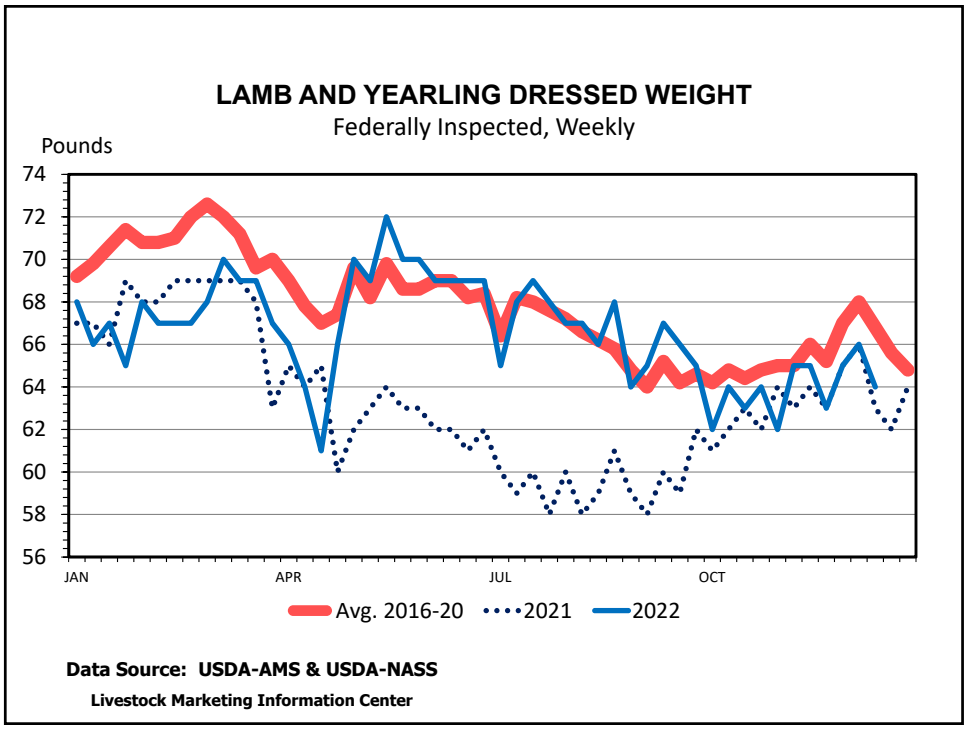

RETAIL PRICE COMPARISON
Monthly
Cents Per Pound
800
750
700
650
600
550
500
450
400
350
300
250
200
150
100
Jan-08
Jan-09
Jan-10
Jan-11
Jan-12
Jan-13
Jan-14
Jan-15
Jan-16
Jan-17
Jan-18
Jan-19
Jan-20
Jan-21
Jan-22
Pork
Composite Broiler
All Fresh Beef
Data Source: Bureau of Labor Statistics & USDA-ERS
Livestock Marketing Information Center

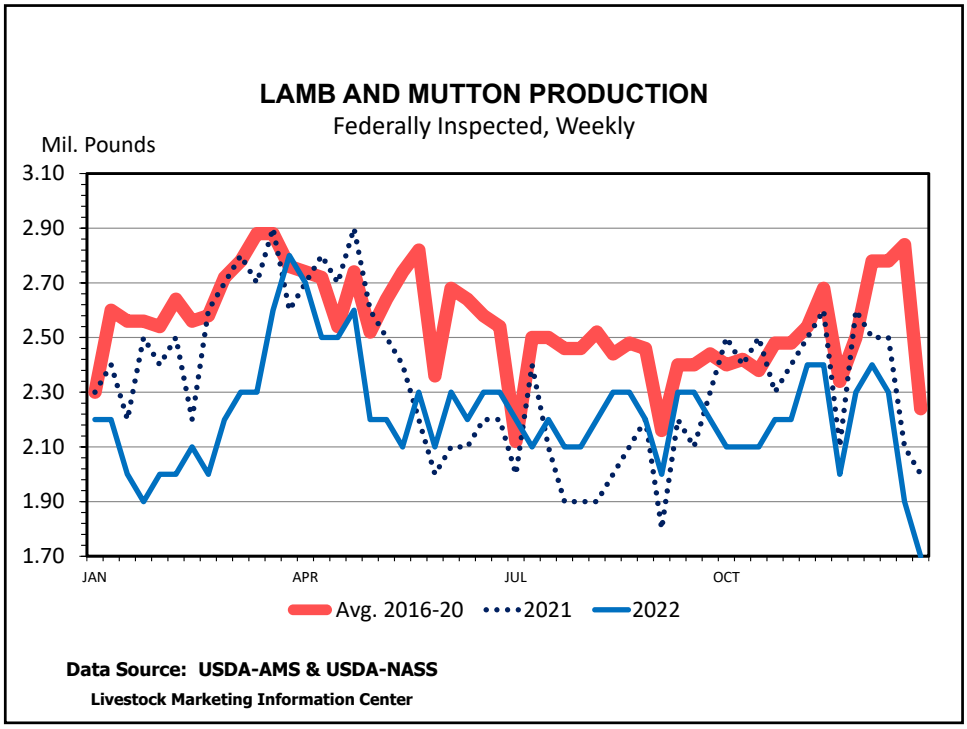
Key Supply Side

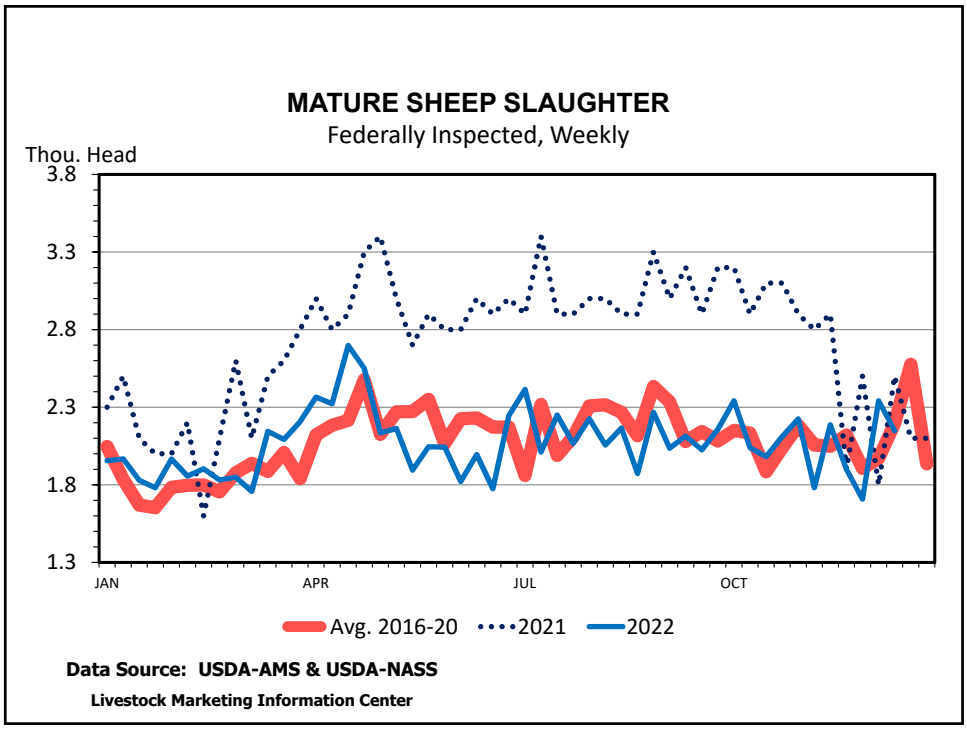
- Production Below Last Year
- Large Imports
- Large Amount in Storage




LAMB AND YEARLING SLAUGHTER
Federally Inspected, Weekly
Thou. Head
46
44
42
40
38
36
34
32
30
28
26
JAN
APR
JUL
OCT
Avg. 2016-20
2021
2022
Data Source: USDA-AMS & USDA-NASS
Livestock Marketing Information Center


LAMB AND YEARLING DRESSED WEIGHT
Federally Inspected, Weekly
Pounds
74
72
70
68
66
64
62
60
58
56
JAN
APR
JUL
OCT
Avg. 2016-20
2021
2022
Data Source: USDA-AMS & USDA-NASS
Livestock Marketing Information Center


LAMB AND MUTTON PRODUCTION
Federally Inspected, Weekly
Mil. Pounds
3.10
2.90
2.70
2.50
2.30
2.10
1.90
1.70
JAN
APR
JUL
OCT
Avg. 2016-20
2021
2022
Data Source: USDA-AMS & USDA-NASS
Livestock Marketing Information Center


MATURE SHEEP SLAUGHTER
Federally Inspected, Weekly
Thou. Head
3.8
3.3
2.8
2.3
1.8
1.3
JAN
APR
JUL
OCT
Avg. 2016-20
2021
2022
Data Source: USDA-AMS & USDA-NASS
Livestock Marketing Information Center

Where to From Here?

- A Little Less Production in 2023
- Recovery in Prices
  - A lot hinges on demand, but tighter supplies will help
- Imports Likely to Be Large
- Work Off Stocks

Contact

danderson@tamu.edu

http://livestock-marketing.tamu.edu

@LivestockEcon

(979) 845-4351

THANK YOU!

The end to over the counter antibiotics

Kevin D Pelzer DVM, MPVM

In 2017 the Food and Drug Administration removed the ability for producers to feed antibiotics, of human importance, as a growth promotant. Likewise, a Veterinary Feed Directive must be obtained from a veterinarian in order to put antibiotics in feed or purchase feed containing antibiotics. This was done to reduce the amount of antibiotics fed to animals with the intent of reducing bacterial resistance to antibiotics. These actions reduced the amount of antibiotics in animal feeds and placed veterinary oversight of antibiotic usage in feed. This left over-the-counter antibiotic usage without any oversight. In order to close that loop hole, the FDA published Guidance for Industry #263 which will remove many over the counter antibiotics, this will go into effect on June 11, 2023.

Prescription drugs, for example Nuflor®, have a label that states: "Caution: Federal law restricts this drug to use by or on the order of a licensed veterinarian." Once Guidance 263 goes into effect on June 11,2023, this statement will be placed on most of the currently available over the counter antibiotics, meaning one will be required to have a prescription from a veterinarian in order to purchase them. The current over the counter drugs that will require a prescription in the future are:
Oxytetracyclines: injectables and boluses. Examples, Liquamycin LA-200®, Noromycin 300 LA®, Terramycin Scour tablets®.
Penicillins (Procaine Penicillin G, Benzathine Penicillin G). Examples, Pro-Pen-G®, Penicillin Injectable®, Dura-Pen®. Intramammary tubes: Albadry Plus®
Sulfa-based antimicrobials (Sulfamethoxine, sulfamethazine). Examples, Injectables: Di-Methox 40%®, SulfMed 40%®. Boluses: Albon®, Sustain III Cattle and Calf® boluses
Tylosin. Example, Tylan 50®, Tylan 200®
Cephapirin, cephapirin benzathine. Mastitis tubes Examples, ToDAY®, ToMORROW®

These products are not being removed from the marketplace, but instead are being brought under veterinary supervision as the feed grade antibiotics were in 2017. In order for a veterinarian to write a prescription, a veterinary client patient relationship (VCPR) must exist. There are several requirements that must exist in order to establish a VCPR. From a producer stand point the major requirement is: the veterinarian must have sufficient knowledge of the herd or flock to initiate at least a general or preliminary diagnosis of the medical condition of the animal. Essentially, a veterinarian must have been to your property, looked at your animals, and is familiar with your management system before he/she can write a prescription for you. You are not required to buy antibiotics from the veterinarian. You will be able to order antibiotics through catalogs and at local farm stores if the stores decide to continue to shelve those products. Antiparasitic products, nutritional supplements, prebiotics and topical non-antibiotic treatments will not be affected and will continue to be available.

Now is the time producers need to seek out and establish a VCPR with a veterinarian if one has not already been established. Having a relationship with a veterinarian will help ensure the correct antibiotics are being used for a particular condition which should result in a more

efficient use of antibiotics and costs as well as a better treatment outcome. Likewise, having a VCPR, the veterinarian can make recommendations for preventing disease reducing the need for treatments and associated costs. Now is not the time to "stock up" on over the counter products to avoid needing a prescription. Animal products have expiration dates and are sensitive to storage time and conditions. Purchasing products now may result in those products expiring, resulting in wastage of product and money.
For more information:
https://www.fda.gov/regulatory-information/search-fda-guidance-documents/cvm-gfi-263-recommendations-sponsors-medically-important-antimicrobial-drugs-approved-use-animals

Coccidiosis in Small Ruminants

Kevin D Pelzer DVM, MPVM

Coccidiosis is a parasitic disease resulting in economic losses insmall ruminants. Lambs and kids are usually the age group affected but yearlings maybe affected. Most infections do not produce symptoms and the disease is self limiting. However, when there is an overwhelming exposure to the organism or the host animal is immunosuppressed, infections often result in disease which may result in death. Animals that are at increased risk of developing clinical coccidiosis are animals not previously exposed to coccidia, recently weaned, shipped and animals housed in crowded conditions.

Coccidioisis is caused by an internal parasite. There are a number of coccidia and they vary in their ability to cause disease. These organisms are transmitted as oocysts through fecal material. The oocytes survive in warm moist environments. Areas which congregate animals are primary areas for transmission; waterers, feedbunks, hay racks, and barns. Animals may acquire the organism directly by eating feed or drinking water containing the organisms. Small ruminants frequently ingest the organisms while grooming themselves. Once ingested, the organisms “hatch” and invade the cells lining the intestines. The organism destroys these cells and depending on the amount of damage clinical signs may develop, diarrhea or “pasty butts”.

The most common clinical sign is loose stools. The animals frequently strain and rectal prolapse may develop from persistent diarrhea and straining. Animals may become depressed, act painful, and develop a fever as bacteria may enter the system through the destroyed areas of intestine. The amount of intestine damaged and the severity of clinical signs are directly proportional to the number of oocytes ingested.

Treatment is to control the diarrhea and possible bacterial infection. There are several treatment options:

1. Providing medication in the water is NOT an option. Although there are products indicated for the use in treating coccidiosis, these products are mostly for cattle and the dose for cattle and small ruminants is different. Also, the amount needed in the water makes the water taste bad and small ruminants will not drink enough to get the proper dose and being off water can exacerbate dehydration that exists due to diarrhea.
2. Amprolium: **Is not labeled for small ruminants and needs to be prescribed by a veterinarian.**
    a. The dose is 5 to 10 times that of the cattle dose for small ruminants. The dose is 50 to 100 mg/kg once a day for 5 days.
    b. This results in the dose for small ruminants to be roughly 1- 2 ml per 5 lbs of body weight of undiluted Corid®.
    c. The recommended slaughter withdraw period is 14 days.
3. Sulfa drugs: **Is not labeled for small ruminants and needs to be prescribed by a veterinarian.**
    a. Sulfadimethozine – Albon® 50mg/kg for 5 days
        i. I recommend a withdraw of 30 days
    b. Sufamethazine – 200mg/kg several days
4. Ponazuril: **Is not labeled for small ruminants and needs to be prescribed by a veterinarian.**
    a. Marquis® is a drug approved for horses to treat Equine Protozoal Myeloencephalopathy
    b. The drug comes in a tube of 127 g. cost @ $320.

c. There are compounded ponazuril products for small animals. These are **ILLEGAL** to use as the active pharmacological agent used in making the compounded drug is not approved by the FDA.
d. The dose of Marquis® is 1 ml/ 3lbs body weight.
e. The slaughter withdraw period I recommend is 60 days.

Prevention centers on management of the environment to reduce contamination and build up of organisms in the environment. Areas can be disinfected by using ammonium or formaldehyde. Increasing drainage around waterering and feeding areas will reduce mud build up on the animals. This cannot be stressed enough.

Animals that are recently weaned or shipped should receive medicated feed to prevent coccidiosis. Decoquinate and ionophores are the 2 most commonly utilized feed medications. Decoquinate, Deccox®, is commercially added to lamb and kid feed. Animals need to eat enough of the feed to consume 0.225mg/lb of body weight per day. Monensin, Rumensin®, and Lasalocid, Bovatec®, are other products used in the control of coccidiosis at a rate of 30g/ton of feed. Feeding ionophores to dams prior to lambing or kidding will reduce the number of oocysts in the environment and may help in preventing pregnancy toxemia. Even though coccidiostats may be present in the feed, outbreaks may still occur because of inadequate intake, gross environmental contamination or the presence of conditions leaving the animals immunosuppressed.

Back to basics with parasite control

Scott Bowdridge, Ph.D.

WestVirginiaUniversity.

Here's my assumption:

- Everyone has heard of FAMACHA
- Everyone knows that there are parasite resistant breeds
- Everyone knows that selection for parasite resistance, regardless of breed, can be achieved
- Everyone knows that good grazing practices can reduce the impact of parasitism

So…let's go back to the basics and see what we may have missed!

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Let's begin with a parasite biology refresher…

- Internal parasites
  - Intracellular – Coccidia
  - Nematode – worms
    - Various species
    - Haemonchus is the most important!!

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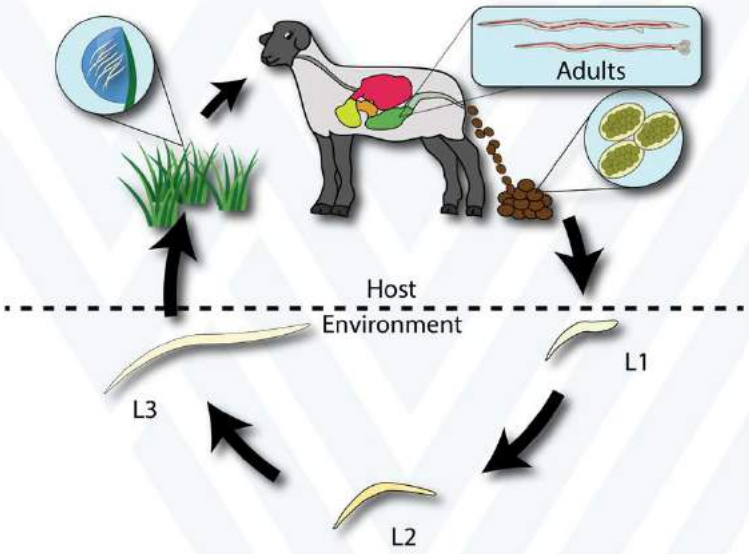
Haemonchus contortus

Blood feeding abomasal parasite

One adult worm consumes 0.05ml blood/day

Female worms lay 5,000 – 10,000 eggs/day



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What is the cost of blood loss?

Anemia = absolute decrease in Red Blood Cells

- Blood loss of > 30-40% creates hypovolemia which can shock and death
- Chronic anemia results in lethargy, weakness and anorexia
- With parasitism we typically see regenerative anemia
  - Increased production to replace RBC (takes up to 14d)

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What is the cost of blood loss?

Decreased serum protein = hypoproteinemia

"Condition"

Parasitism with *Haemonchus* can cause clinical or subclinical hypoproteinemia or low protein condition

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Impact of haemonchosis on nutrition

- Reduced feed intake
  - Account for some reduced dietary protein and energy
- Due to blood loss and immune response there will be an increase maintenance energy requirement
  - This increase is estimated to be 15%
    - This does not include reduced feed intake!
  - Some estimate this to be a 5% increase in maintenance energy, accompanied by a relative greater increase in protein requirements

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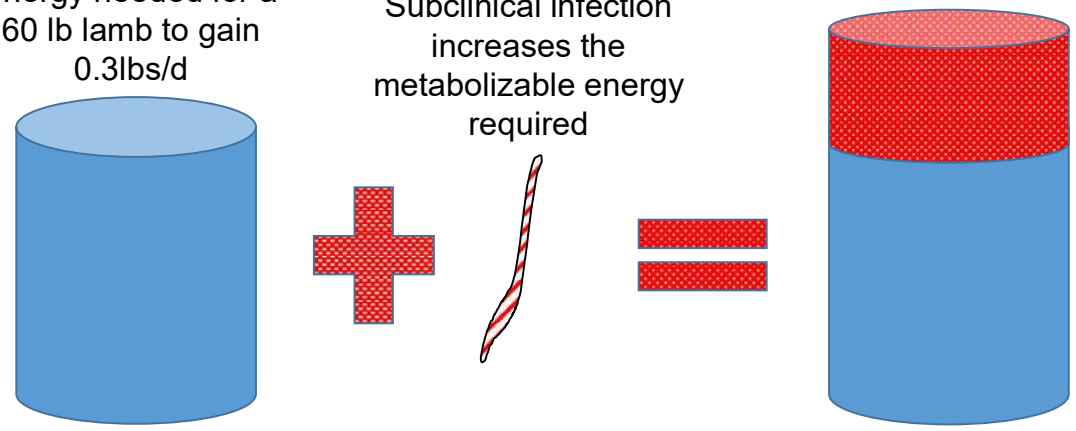
Let's say that this column represents the metabolizable energy needed for a 60 lb lamb to gain 0.3lbs/d

Subclinical infection increases the metabolizable energy required

The top part of this new column represents the "new" metabolizable energy requirements when lambs are infected



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Can performance be maintained despite infection?

CAVEAT – depends on infection level!

- ***If*** diet changes to increase metabolizable protein, in order to meet performance targets, ***then*** metabolizable energy intake would increase to a level greater than energy maintenance levels from infection

Can you feed your way out of parasitism and maintain growth?

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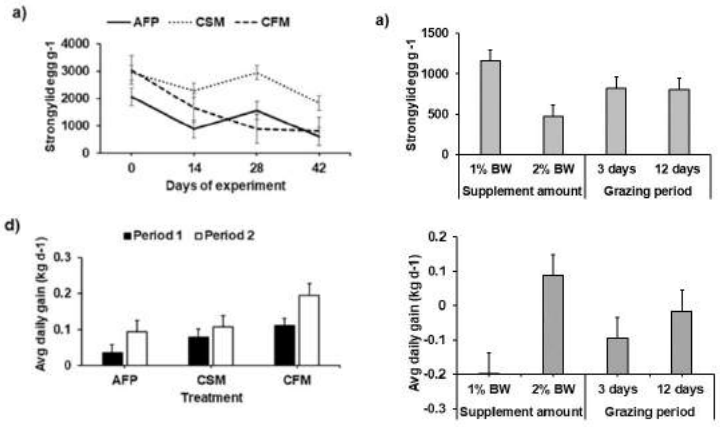
Lets look at some data about that…

Legend: Supplements: AFP, alfalfa pellets; CSM, corn and soybean meal; CFM, corn, soybean meal and fish meal.



When lambs are given supplement including fishmeal (rumen protected protein) then fecal egg counts are lower and gain is higher

When fish meal containing supplement is given at a higher rate then parasitism is lower and ADG is higher

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Why is protein important in parasite infections?

- Immune response to parasitism requires antibodies and immune signaling components to be synthesized
- Tissue repair and remodeling
- Immune cell generation

Gastrointestinal parasite infection in sheep increases nitrogen flow into the gastrointestinal tract and reduces the efficiency of dietary nutrient use for production

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Impact of infection on protein requirements

GIN infection tend to affect protein requirements more than energy, but we have to be cognizant about optimum or required protein:energy ratio

- Some studies say that metabolizable protein for maintenance increases **0.69** fold in late gestation ewes and by **2.5** fold for ewes in early lactation
- Looking at ewes here is important because of nutrient partitioning required for fetal development and milk production

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What would that level of increase look like in reality?

Late Gestation ewe that weighs 176lbs (80kg) that is twin bearing has a metabolizable protein requirement of 136 g/d or roughly **0.31 lbs MP/day**

At 0.69 fold of 136g/d = 230 g/d or roughly **0.51 lbs MP/day**

Early Latation ewe that weighs 176lbs (80kg) that is milking twins has a metabolizable protein requirement of 222 g/d or roughly **0.49 lbs MP/day**

At 2.5 fold of 222 g/d = 555 g/d or roughly **1.2 lbs MP/day**

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What would that level of increase look like in reality?

If we are feeding Corn/SBM mixed at 14%CP then MP = 9.6%
To achieve requirements by feeding Corn/SBM alone you'd need:

	Normal Ewes		Parasitized Ewes		
	MP Req (lbs)	Feed Req (lbs)	MP Req (lbs)	Feed Req (lbs)	Normal vs Parasitized
Late Gestation	0.31	3.2	0.51	**5.3**	**+2.1 lbs**
Early Lactation	0.49	5.1	1.2	**12.5**	**+7.4 lbs**

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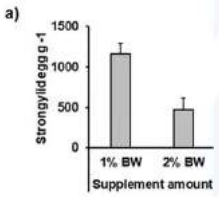
Is all protein made equally?

- Rumen degradable vs Rumen protected protein
- Additives like fish meal have high total protein and are a good source of rumen protected protein
- By using sources of rumen protected protein at 7% of total protein FEC can be reduced in lambs
- Parasitized animals will preferentially select feeds with higher dietary protein



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I don't care about grain…I'm a grass fed producer!

- How do you get more protein to grass-fed lambs?
  - Supplement…but you probably are going to resist that notion!
  - Incorporate legumes into pasture
    - Depending on location that maybe easy or hard
  - Utilize tannin-containing forages
    - Tannins bind protein and make it rumen protected
      - Fed too high and can bind all protein having the opposite effect

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I have amazing pastures and my forage tests say so!

Dairy One

FORAGE TESTING LABORATORY
DAIRY ONE, INC.
730 WARREN ROAD
ITHACA, NEW YORK 14850
607-257-1272 (fax 607-257-1350)

Sampled	Recvd	Printed	ST	CO
09/27/21	09/29/21	09/30/21		

BAR S FARM
West Virginia University - Rayburn
G216 Ag Science Bldg
PO Box 6108
Morgantown, WV 26506-6108

ENERGY TABLE - NRC 2001

	Mcal/Lb	Mcal/Kg
DE, 1X	1.31	2.89
ME, 1X	1.12	2.47
NEL, 3X	0.64	1.42
NEM, 3X	0.68	1.49
NEG, 3X	0.41	0.90
TDN1X, %	63	

Sample Description	Farm	Code	Sample
GRASS PASTURE		013D	27981440
SMITH JUN GRASS			

Analysis Results

Components	As Fed	DM
% Moisture	10.3	
% Dry Matter	89.7	
% Crude Protein	15.6	17.3
% Available Protein	15.4	17.1
% ADICP	.2	.2
% Adjusted Crude Protein	15.6	17.3
Soluble Protein % CP		31
Degradable Protein%CP		74
% NDICP	4.8	5.3
% ADF	29.2	32.6
% aNDF	50.1	55.8
% Lignin	3.0	3.3
% NFC	11.9	13.3
% Starch	1.7	1.9
% WSC (Water Sol. Carbs.)	8.6	9.5
% ESC (Simple Sugars)	5.3	5.9
% Crude Fat	3.1	3.4
% Total Fatty Acids	1.98	2.21
% RUFAL	1.17	1.30
% Ash	9.08	10.12
% TDN	61	68

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Lets use this forage test

- First we have to use the actual dry matter value from this forage which was 30%
- CP on a dry matter basis was 17.3%, So CP on an as-fed basis would be (17.3 x 0.30) 5.19% CP

Let's say we have a lamb that weighs @ 66lbs (30kg) and we expect them to gain 0.33lbs/d on pasture (150g/d) they would have a protein requirement of 0.3 lbs/day.

To meet this requirement a 66 lb lamb would have to eat 5.78 lbs of forage daily, this is roughly 9% of BW **which is more than double normal consumption of ~4% of BW (2.64 lbs)**

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Now lets give this same lamb a subclinical parasite infection

Lets be conservative and estimate an increase in protein requirement by only 50%

Previously the 66lb lamb required 0.3 lbs of protein daily to gain 0.33lbs/d on pasture.

The new requirement is 0.45lbs of protein daily, still grazing the same pasture (5.19% CP as fed) that lamb would now have to consume 8.67 lbs daily (13% of BW) which is now **3 TIMES** more than what a lamb of that size would typically consume.

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What's the other problem with our forage test?

- Its only relative to the time at which the sample was collected
- That pasture will change across the year with varying levels of dry matter, protein, energy, ADF, NDF…etc

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Basics in review

- Gastrointestinal nematode parasitism comes at a nutritional cost
- Infection with GIN parasites causes reduced feed intake
- That nutritional cost needs to be addressed though increasing the amount of energy and protein being fed to parasitized sheep

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Can we say that managing parasites in small ruminants can be complex?

Sure but here's one of my favorite quotes…

"*In complexity there's no silver bullet only silver buckshot*" – Marc Cabaj

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There's no silver bullet on this journey, so we must start by doing the hard things first!

About ASI

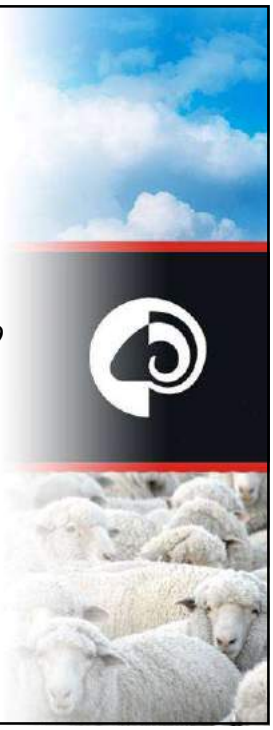
- The American Sheep Industry Association (ASI) is the national organization representing the interests of more than 100,000 sheep producers located throughout the U.S. From East to West, pasture-based flocks to range operations, ASI works to represent the interests of all producers.
- **Mission** – *To support, promote and safeguard sheep production in the U.S. – representing and advancing the interests of member organizations, industry partners and individual sheep producers with advocacy, knowledge-based insights, communications, research and education. Identify, establish, advise, direct and/or support enterprises that benefit members.*

Coronavirus Food Assistance Program (CFAP)

- **CFAP 1 & 2 total to date: $158.7 million to sheep producers and feeders**
- CFAP 1: $68.95 million total to date
  - Wool $4.2 million
  - Sheep $15.1 million
  - Lambs $49.6 million
- CFAP 2 Sheep: $89.73 million
- *CFAP figures reported as of May 30, 2022*

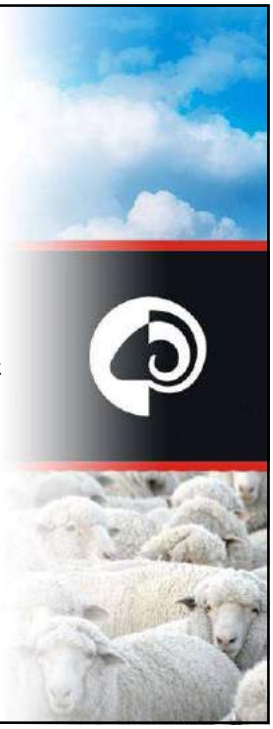
USDA Wool Marketing Loan Kicks In

- Pandemic damage to the wool business on top of the U.S. China Trade war has been severe.
- ASI worked with the wool trade, USDA market reporters, and USDA Farm Services Agency in July 2019 to update the wool marketing loan.
- After much effort, an ungraded wool loan deficiency payment was announced in May 2020. **Currently at 40 cents per lb. greasy** and $2.746 per unshorn pelt.
- ASI continues to work with existing markets and is exploring new markets to move wool with USDA funding.



LRP-Lamb Insurance

- The pandemic and ensuing bankruptcy of Mountain States Rosen resulted in loss of Mandatory Price Reporting and opportunity to purchase LRP-Lamb.
- With the loss of that lamb plant and different purchase methods of the new plants, price reporting was still not available to support LRP-Lamb insurance by summer of 2021. USDA withdrew the product from its crop insurance lineup.



Lamb Trade Priorities

- ASI is focusing on Korea and the European Union to open their markets to U.S. lamb products.
- Japan reopened to U.S. lamb in July 2018; prior to market closure, it was the highest value export market.
- UK – ASI reiterated the cautions of negotiations regarding lamb imports to the administration.
  - ASI shared trade issues with the US Trade Representative and USDA/OMB regarding the potential rulemaking on UK lamb and germplasm.
  - ASI led numerous bi-cameral and bi-partisan congressional letters with this position.

Market Access for American Lamb

- ASI testified on the issue at the House Committee on Agriculture in October of 2021. Committee members questioned USDA Secretary Vilsack on the issue during the hearing.
- U.S. House and Senate legislation introduced in December to halt the rule for more investigation. This has not passed the U.S. Congress, however.
- USDA is evaluating UK processors and exporters for seedstock, germplasm and sheep products.
- This month, the Administration approved germ plasm imports under certain conditions.

Price Reporting Top Priority for ASI

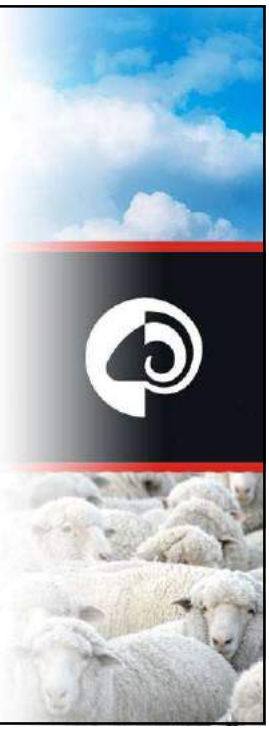
- Mandatory price reporting for livestock legislation renewed for 1 year, again, to avoid expiration.
- ASI continues to work with the meat industry, stakeholders, and Congress to secure a 5-year renewal and likely a study to determine how confidentiality can be addressed.
- Cattle oriented federal legislation on cash trade mandate not necessary for the lamb trade.

USDA SECTION 32

- In November, USDA finally announced a purchase of lamb meat for the nation's food banks to help with supply and price issues in the lamb business.
- Several cuts of lamb including stew meat are approved and bids and deliveries will begin this winter.

USDA Lamb Meat

- ASI and NLFA requested the lamb buy in May and have met with USDA and lamb industry feeders and companies since late July to accomplish.
- Stew meat is helpful to process the longer fed slaughter lambs that have been in the system this year.



Secure Sheep & Wool Supply Plan

- If foot and mouth disease (FMD) is found in the U.S., Regulatory Officials will limit the movement of animals and animal products to try and control the spread.
- The Secure Sheep and Wool Supply (SSWS) Plan provides opportunities to voluntarily prepare before an FMD outbreak to limit exposure of sheep and prepare to meet movement requirements.
- **New producer outreach and education materials available!**
- Hosted training sessions for producers and stakeholders at the 2022 convention.

Secure Sheep & Wool Supply Plan

- Received a grant in collaboration with NCBA to develop movement decision criteria for sheep and cattle grazing on federal public land allotments during a potential FMD outbreak.
- The information developed from the grant will improve the guidance in the Secure Sheep and Wool Plan for producers with sheep grazing on public lands.
- Learn more about the SSWS Plan and resources at https://securesheepwool.org/.

Efforts to Assess Electronic ID

- USDA has indicated they want real time animal tracking/traceability to occur for cattle, sheep, pigs, and goats.
- ASI is engaged in efforts that consider how best to accommodate a transition to electronic ID, out of concern that USDA will at a future time impose a plan of their own for the sheep industry.
- In 2020, the ASI Animal Health Committee convened the ASI Electronic ID Transition Working Group to evaluate how to accommodate a transition toward electronic ID for the sheep industry.

Efforts to Assess Electronic ID

- In April 2022, ASI conducted a small pilot project at Delta Sales Yard, in Delta, Colorado, to evaluate the feasibility of integrating an EID system for sheep in an auction market.
- The project assessed the technology with respect to current business practices, how to make transmission work at the speed of commerce and identified the needs/gaps in implementing an electronic ID system for sheep at auction markets.
- Two Let's Grow Webinars focusing on electronic ID in June and July 2022.

China Tariffs on Raw Wool and Sheepskins

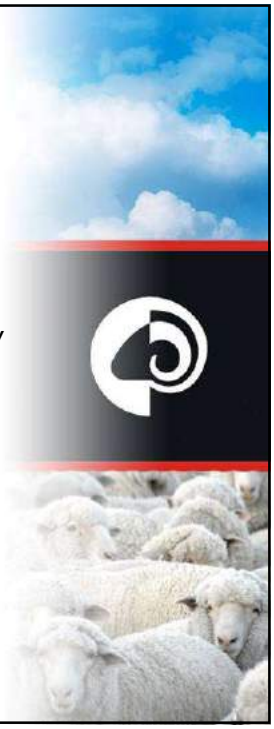
- In August 2018 China imposed a 25% tariff on grease wool and sheepskins from the U.S.
- It is very difficult to replace the China market for coarse and colored wools.
- ASI has been aggressive in utilizing the Quality Samples program to ship a container at a time for processing trials.
- China is the largest export destination for sheepskins.
- Sheepskins and beef hides/leather demand has **greatly improved** compared to 2020. Prices have rebounded to pre-2019 levels.

Cell-Cultured… Fake…Imitation Protein

- ASI is actively working with industry partners, Congress, and the Administration to ensure these products are accurately labeled, regulated, and don't disparage genuine American Lamb, beef, or other livestock proteins.

Electronic Logging for Livestock Haulers

- ASI supported a delay in the enforcement of the Electronic Logging mandate for livestock haulers.
- Biden Administration decided against the Hours of Service, rule change requested by the livestock industry this month. ASI will continue work with Congress to extend the fiscal year exemption on electronic logging for livestock haulers.
- ASI did secure a Congressionally mandated front-end 150 air mile radius exemption for livestock haulers including now an additional back-end 150 air mile radius exemption.



Objective Measurement of American Wool

- ASI and wool industry leaders met in July 2019 on a proposal to expand a wool research laboratory to a commercial facility.
- In January 2020, ASI raised $200,000 from its entities and partners to support a lab with the existing wool research entity at Texas A&M AgriLife in San Angelo, Texas.

- ASI's Sheep Venture Company negotiated a usage agreement for the equipment in return for nearly $200,000 additional support.
- The university has hired a lab manager, equipment has been installed and commercial testing has begun in a limited capacity.

American Wool Assurance Program

- The textile industry and consumers are looking for assurances in wool products. AWA helps to provide confidence in our wool.
- Developed by ASI and CSU with input from the industry.
- Focus on year-round animal welfare components related to wool sheep production:
  - Health
  - Nutrition
  - Stress
  - Handling
  - Facilities
  - Transportation
  - Shearing
- AWA website with resources and courses is now available at www.AmericanWoolAssurance.org.

American Wool Assurance Program

- Level I – Educated
  - Using an online module, producers will learn about good sheep care practices and the AWA program
  - Successful completion earns a certificate
- Level II – Process Verified
  - Level I required plus records and operating procedures kept and a 2nd party Evaluation
  - Successful completion earns a certificate, AWA Process Verified stencil and an electronic certificate

American Wool Assurance Program

- Level III – Certified
  - Level I certification required plus a 3rd party Audit
  - Successful completion earns a certificate, AWA Certified stencil, an electronic certificate, use of the AWA logo, and the ranch's name/logo on the AWA website (optional)
- Ranch Group Certified
  - Level I certification required, plus 2nd Party Evaluation, 3rd Party Audit
  - Completion earns same benefits as Level III

Shearer Development Programs

- Beginner shearers
  - ASI books, videos and posters are used at many beginner shearing schools.
- Intermediate shearers
  - Developing Shearer & Mentor Grant supports developing shearers as they continue to progress and work in the industry. Selected mentors who aid these developing shearers are also compensated for their costs and time.
- Advanced shearers
  - ASI assisted the Advanced Shearing Schools with instructor costs.

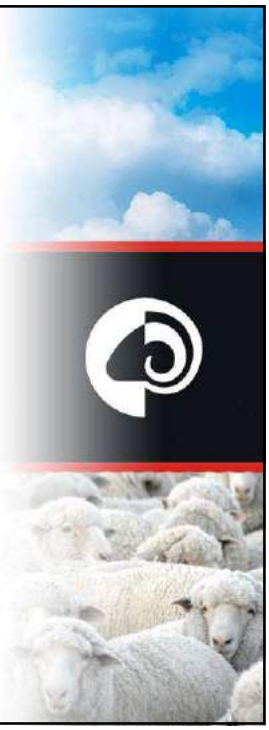
American Wool Promotional Boxes

- ASI shipped specially printed boxes featuring American wool socks and promotional items to first-stage processors around the world.
- The promotional boxes were in lieu of a traditional Reverse Trade Mission trip that would traditionally bring first-stage processors to the U.S. for a first-hand look at American wool.

- RTM trips were cancelled in 2020 and 2021 due to pandemic restricted international travel.
- Millions of pounds of American wool have been sold through the RTM program.

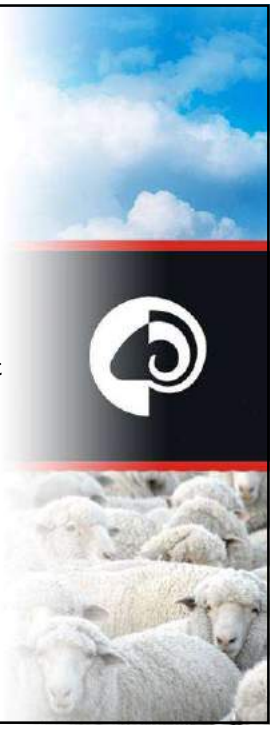
American Wool Promotional Boxes

- The boxes included a video-capable brochure that provides viewers with the story of American wool without the need for additional playback devices.
- Videos also being used for educating those involved in international wool and textile trade, on social media and in future projects.



ASI Guard Dog Fund

- The ASI Guard Dog fund remained active on top priority issues for the American Sheep Industry
- **Bighorn Sheep** – ASI filed an amicus brief in Washington State where public lands ranchers came under attack with an injunction threatening the turnout of their sheep. Planning another brief this winter.
  - The injunction was denied, and sheep turned out in spring of 2021. Case was further denied in the spring of 2022.



ASI Guard Dog Fund

- **Gray Wolf – Wolves** – ASI approved to intervene now in the appeal supporting the Department of Interior's decision to delist the gray
- **Sheep Experiment Station** – ASI intervened on behalf of USSES and supported DOJ's efforts
- **Western Resource Legal Center** – ASI has continued to support WRLC's education efforts to train the next generation of resource attorneys at the Lewis and Clark School of Law

Sheep Heritage Fund Scholarship

2022 Scholarship Winner:
Courtney Newman
University of Wyoming

Young Entrepreneurs

2022 Michigan Ag Tour – Aug. 10-11

- Zeilinger Wool Company
- Great Lakes Lamb
- Matchett Sheep Farm
- Cellar 1914 Winery
- Michigan State University Sheep Research Farm
- Laracha Farms
- Harrietta Hills Trout Farm

ASI Annual Convention

January 18-21, 2023

For Worth, Texas

SheepUSA.org

Facebook.com/SheepUSA

Instagram/SheepUSA

American Sheep Industry Association

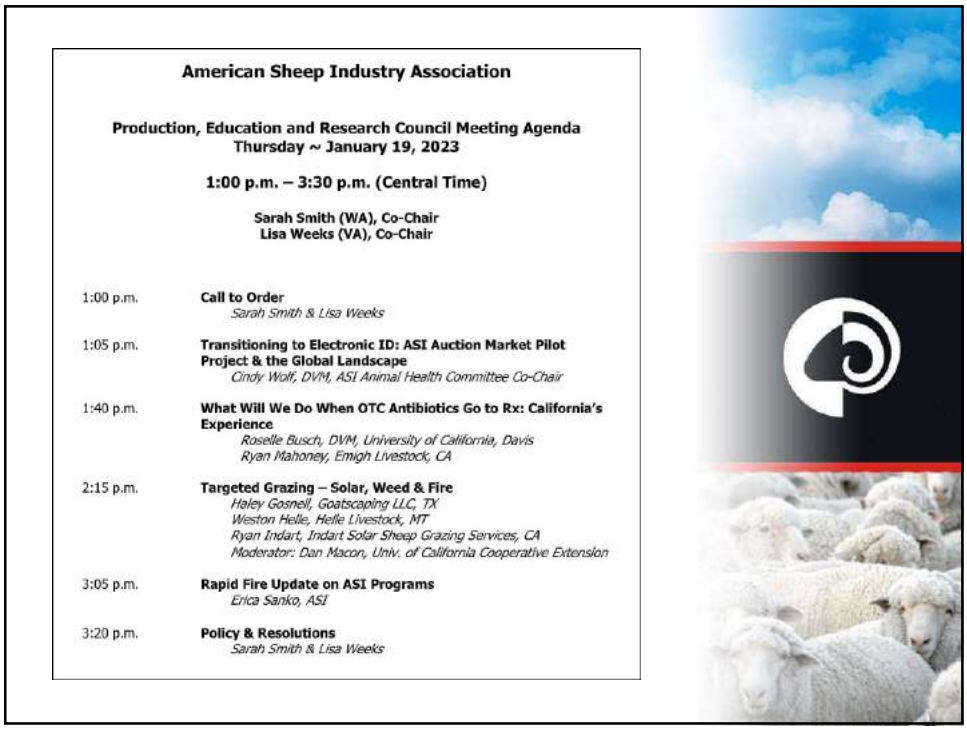
Genetics Forum Agenda

Hosted by ASI Genetic Stakeholders Committee, National Sheep Improvement Program and Sheep Genetics USA

Thursday ~ January 19, 2023

10:00 a.m. – 3:30 p.m. (Central Time)

10:00 a.m.	**Welcome & Overview of Morning Session** *Andrew Weaver, Ph.D., ASI Genetic Stakeholders Committee Co-Chair*
10:05 a.m.	**Sheep Genetics USA Update** *Tom Boyer, SGU Board member* *Rusty Burgett, SGU Board member*
10:15 a.m.	**Overview of NSIP Activities & Introduction of NSIP Technical Committee Member** *Rusty Burgett, NSIP Program Director* *Andrew Hess, Ph.D., University of Nevada-Reno*
10:25 a.m.	**USDA Agricultural Research Service Genetic Research Panel** *Joan Burke, Ph.D., Dale Bumpers Small Farms Research Center* *Brad Freking, Ph.D., U.S. Meat Animal Research Center* *Tom Murphy, Ph.D., U.S. Meat Animal Research Center* *Bret Taylor, Ph.D., U.S. Sheep Experiment Station* *Carrie Wilson, Ph.D., U.S. Sheep Experiment Station* *Moderator: Rusty Burgett, NSIP Program Director*
11:30 a.m.	**Break**
1:00 p.m.	**Overview of Afternoon Session** *Andrew Weaver, ASI Genetic Stakeholders Committee Co-Chair*
1:05 p.m.	**Parasite Management & Western Range Breeds** *Jake Thorne, Texas A&M AgriLife Extension*
1:35 p.m.	**Value of Genetic Data Collection** *Gavin Blomquist, Coalville, UT* *David Fisher, Sonora, TX* *Alex Moser, Larchwood, IA* *Moderator: Rusty Burgett, NSIP Program Director*
2:20 p.m.	**Improving Robustness & Climatic Resilience in U.S. Sheep Populations through Genomics** *Ron Lewis, Ph.D., University of Nebraska-Lincoln*
2:50 p.m.	**Future of Genetic Selection for the U.S. Sheep Industry** *Group Discussion*
3:25 p.m.	**Concluding Remarks** *Andrew Weaver, Ph.D., ASI Genetic Stakeholders Committee Co-Chair*



American Sheep Industry Association

Production, Education and Research Council Meeting Agenda
Thursday ~ January 19, 2023

1:00 p.m. – 3:30 p.m. (Central Time)

Sarah Smith (WA), Co-Chair
Lisa Weeks (VA), Co-Chair

1:00 p.m.	**Call to Order** *Sarah Smith & Lisa Weeks*
1:05 p.m.	**Transitioning to Electronic ID: ASI Auction Market Pilot Project & the Global Landscape** *Cindy Wolf, DVM, ASI Animal Health Committee Co-Chair*
1:40 p.m.	**What Will We Do When OTC Antibiotics Go to Rx: California's Experience** *Roselle Busch, DVM, University of California, Davis* *Ryan Mahoney, Emigh Livestock, CA*
2:15 p.m.	**Targeted Grazing – Solar, Weed & Fire** *Haley Gosnell, Goatscaping LLC, TX* *Weston Helle, Helle Livestock, MT* *Ryan Indart, Indart Solar Sheep Grazing Services, CA* *Moderator: Dan Macon, Univ. of California Cooperative Extension*
3:05 p.m.	**Rapid Fire Update on ASI Programs** *Erica Sanko, ASI*
3:20 p.m.	**Policy & Resolutions** *Sarah Smith & Lisa Weeks*

American Sheep Industry Association

Animal Health Committee Meeting Agenda
Thursday ~ January 19, 2023
7:30 a.m. – 10:00 a.m. (Central Time)
Jim Logan (WY), Co-Chair
Cindy Wolf (MN), Co-Chair

7:30 a.m.	**Call to Order**	Jim Logan & Cindy Wolf Committee Co-Chairs
7:35 a.m.	**Update on Cache Valley Fever**	Reid Redden, Texas A & M
8:00 a.m.	**A Practitioner's Perspective on When Over the Counter Antibiotics Go to Prescription Only**	Jill Swannack, DVM
8:45 a.m.	**Complexities in Drug Development and Approval**	Ron Phillips Animal Health Institute (*Invited)*
9:30 a.m.	**National Scrapie Eradication Program**	Diane Sutton USDA APHIS Veterinary Services (*Accepted but travel subject to approval)*
9:45 a.m.	Policy and Resolutions	Committee Co-Chairs

2023
Shepherd's Symposium

Virginia Department of Agriculture And Consumer Services Update

Dr. Tabby Moore
Regional Field Veterinarian

National Scrapie Surveillance Update

- The National Scrapie Eradication Program continues to document success.

- https://www.aphis.usda.gov/aphis/ourfocus/animalhealth/animal-disease-information/sheep-and-goat-health/national-scrapie-eradication-program
- No positive Scrapie animals in 2022.
- The last positive case was an Indiana goat in 2019.

- The USDA has an annual goal of testing 40,000 animals each year.
  - A total of 30,121 animals (21,942 sheep and 8,179 goats) were sampled across the US for scrapie testing in FY 2021. (701,245 since 2003)
  - Slaughter surveillance accounted for 28,389 samples; 1,732 samples were taken on-farm.

On-Farm Surveillance Testing

- The National Scrapie Eradication Program:
- each state has annual sheep sampling minimums.
- For 2022 Virginia tested 196 sheep and 92 goats.
- **On-Farm Scrapie Surveillance Samples are always needed.**
- Submit whole heads from sheep and goats over 18 months of age that are slaughtered, die or are euthanized on your premises.
- Contact VDACS veterinarians for more information on how you or your veterinarian can submit samples or whole heads for scrapie testing.

Scrapie Tags

Official ear tags are those approved for use in sheep and goats *with the US shield printed on the tag.*

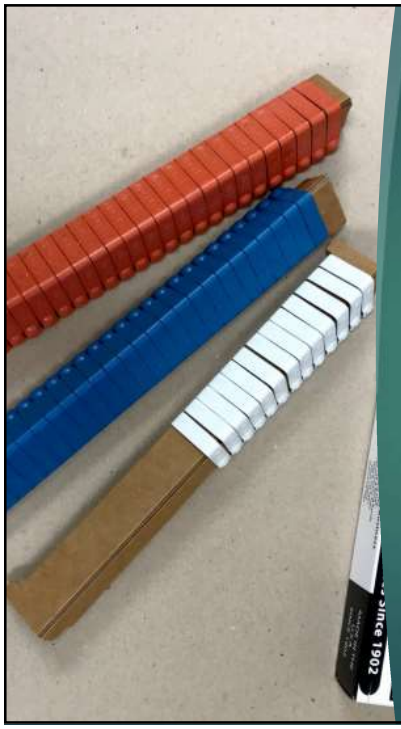
Ear tags come in various shapes, sizes, colors and numerical sequences (examples below)

Flock Style Tags

Serial Style Tags

Both plastic and metal tags are acceptable identification.

New style (Shearwell) plastic tags from USDA



- Orange tags and white tags are acceptable.
- Blue tags are "slaughter only" or "meat" tags and are available from USDA.

New Participants can contact USDA to receive 100 free plastic tags, while funding is available. There is currently no funding to provide tags for existing participants.

In Virginia,
call **804-343-2569** to enroll in the Scrapie program and receive your free tags.

You need your flock number to reorder tags.

Manufacturers to purchase tags

Allflex USA, Inc.
(plastic tags, RFID tags)
PH: 833-727-2743
Website: www.scrapietags.com

Shearwell Data USA
(plastic tags, RFID tags)
PH: 800-778-6014
Website: www.shearwell.com

Premier 1 Supplies LLC
(plastic tags only)
PH: 800-282-6631
Webpage: www.premier1supplies.com/c/ear-tags-and-tattoo-supplies/ear-tags-for-usda-scrapie-eradication-program

National Band & Tag Company
(metal tags only)
PH:859-261-2035
Website: www.nationalband.com

Alliance ID, USA
(microchips only)
PH: 800-434-2843
Website: www.microchipidsystems.com

EZid, LLC
(microchips, RFID tags)
PH: 877-330-3943
Website: www.EZidAvid.com

Who Needs Tags?!?!

Culled Sheep
Culled ewes or rams must be officially identified/ear tagged either before leaving the farm or at an approved livestock market. Cull sheep are defined as greater than 18 months of age.

Lambs
Ewe lambs under 18 months of age need to be officially identified/ear tagged before leaving the farm or at an approved livestock market.

Lambs under 18 months of age going **directly to a slaughter plant** *do* **not** *need official identification*.

Breeding Ewe or Ram
If going to **show**: Official I.D. required.
If going to **sale**: Official I.D. required.
If staying at **home**: No official I.D. required.

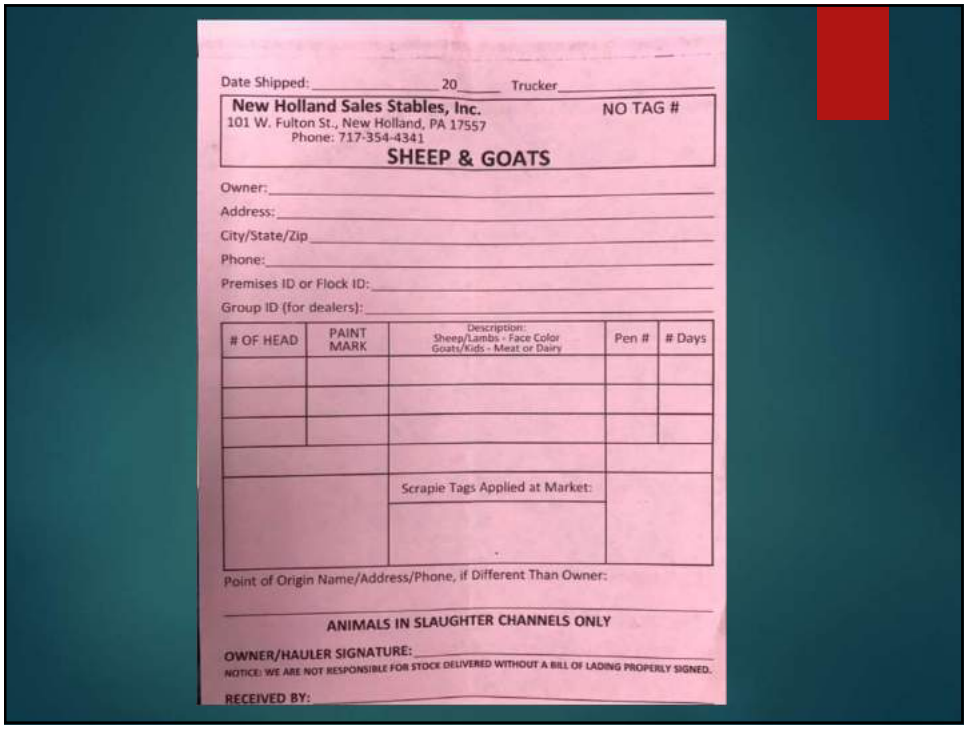
Any show/exhibition is considered interstate movement if out of state animals attend.

Just Remember: When Sheep leave the farm, they need a Scrapie Tag.

Marketing Update

Many Virginia sheep are sold at **New Holland Sales** in PA. In 2021, they began utilizing the USDA approved owner/shipper form below.

In addition to all sheep being Scrapie tagged, you will need to provide:
-Flock # or Premises ID
-description of shipment
- complete contact information



Date Shipped: _____ 20____ Trucker_____

New Holland Sales Stables, Inc. NO TAG #
101 W. Fulton St., New Holland, PA 17557
Phone: 717-354-4341

SHEEP & GOATS

Owner:_____
Address:_____
City/State/Zip_____
Phone:_____
Premises ID or Flock ID:_____
Group ID (for dealers):_____

# OF HEAD	PAINT MARK	Description: Sheep/Lambs - Face Color Goats/Kids - Meat or Dairy	Pen #	# Days
		Scrapie Tags Applied at Market:		

Point of Origin Name/Address/Phone, if Different Than Owner:

ANIMALS IN SLAUGHTER CHANNELS ONLY

OWNER/HAULER SIGNATURE:_____
NOTICE: WE ARE NOT RESPONSIBLE FOR STOCK DELIVERED WITHOUT A BILL OF LADING PROPERLY SIGNED.
RECEIVED BY:

▶Scrapie Eradication is important!

- -Scrapie is a prion disease like CWD (Chronic Wasting Disease) and BSE (Mad Cow disease) and transmission to humans.
- -Eradication will open profitable domestic and foreign marketing opportunities; Exports to Australia and New Zealand!
- Income losses in US are estimated at $10-20 million.
- -Scrapie tags are not going away.
- Sheep producers are leading the way in animal identification!

Questions?

VIRGINIA DEPARTMENT OF AGRICULTURE AND CONSUMER SERVICES

Dr. Dan Hadacek
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C:(540)810-2002
Dan.Hadacek@vdacs.Virginia.gov

Dr. Tom Lavelle
O:(276) 228-5501
C:(276)613-4988
Tom.Lavelle@vdacs.Virginia.gov

Dr. Tabby Moore
O:(540) 209-9120
C:(540)209-2689
Tabitha.Moore@vdacs.Virginia.gov

2022 VSPA Board Members

Gary Hornbaker, Berryville – President; Northern Region - 2024 (2)
703-431-2314 garyhornbaker321@gmail.com

Frank Patterson, Raphine - VP Commercial; At Large, Elected - 2022 (2)
540-348-4124 shepherdshaven47@gmail.com

Corey Childs, Berryville - VP Seedstock; Seedstock Council - 2022 (2)
540-955-4663 cchilds@vt.edu

Tom Stanley, Lexington - VP Wool Council; At Large, Elected - 2023 (2)
540-588-0241 milkbarnmeadow@gmail.com

Robin Freeman, Chesapeake - South/SE Region - 2022 (1)
757-681-4819 gumtreefarm@cox.net

Jim Hilleary, Marshall - Northern Region - 2022 (1)
703-777-0373 jim.hilleary@vt.edu

Lisa Lewis, Glade Spring - Southwest Region - 2022 (1)
276-780-3101 cedarspringfarmsllc@gmail.com

Sarah Mackay-Smith, White Post - At Large, Elected - 2022 (2)
540-837-2529 pastured@cullenstone.com

Patti Price, Luray - Wool Council - 2022 (1)
540-244-7545

Laura Begoon, Grottoes - Seedstock Council - 2023 (1)
540-421-3469 begoonfarm@gmail.com

Jason Geesaman, Cullen - South/SE Region - 2023 (1)
434-610-7257 jmarfarm06@gmail.com

Kate Mahanes, Staunton - Valley Region - 2023 (2)
434-760-1515 katemahanes@hotmail.com

Jennifer McClellan, Riner - Southwest Region - 2023 (2)
540-392-6067 nolleywoodfarm@gmail.com

Tom Stanley, Lexington - At Large, Elected - 2023 (2)
540-588-0241 milkbarnmeadow@gmail.com

Larry Weeks, Waynesboro - At Large, Board Appointed - 2023 (1)
540-943-2346 lweeks@lumos.net

Dewayne Cassell, Meadows of Dan - Southwest Region - 2024 (1)
276-952-1299 andcassell@embarqmail.com

Daniel May, Grottoes - Seedstock Council - 2024 (2)
724-880-5679 mayvalleyfarm@yahoo.com

Dan Woodworth, Waynesboro - Valley Region - 2024 (2)
540-649-0053 sesmeoaks@gmail.com

Mandy Fletcher, Abingdon - Past President
276-759-4718 beyondblessedfarm@gmail.com

Scott Greiner, Blacksburg - Educational Advisor
540-231-915 9sgreiner@vt.edu

Matthew Sponaugle, Harrisonburg - Technical Advisor
540-383-7983 matthew.sponaugle@vdacs.virginia.gov

Kevin Pelzer, Blacksburg - Technical Advisor
540-231-4618 kpelzer@vt.edu

Roy Meek Outstanding Sheep Producer Award Recipients

2021 – Scott Greiner, Montgomery County
2020 – Lee Wright, Washington County
2019 – Jason & Kerri Shiflett, Augusta County
2018 – David Fiske, Augusta County
2017 – Burke Simmons, Augusta County
2016 – Cecil King, Pulaski County
2015 – Larry & Lisa Weeks, Augusta County
2014 – Jeff Lawson, Augusta County
2013 – Laura Begoon, Rockingham County
2012 – Sonny and Ashley Balsley, Augusta County
2011 – Leo Tammi, Augusta County
2010 – Bobbi Hefner, Highland County
2009 – Mac Swortzel, Augusta County
2008 – David Shiflett, Augusta County
2007 – Doug Riley, Augusta County
2006 – Mike Carpenter, VDACS
2005 – Jim Wolford, Wythe County
2004 – Martha Mewbourne, Scott County
2004 – David Redwine, Scott County
2003 – Martha Polkey, Loudoun County
2002 – Carlton Truxell, Augusta County
2001 – Corey Childs, Clarke County
2000 – John Sponaugle, Rockingham County
1999 – Bill Stephenson, Page County
1998 – Gary Hornbaker, Clarke County
1997 – Bruce Shiley, Clarke County
1996 - Weldon Dean, Rockingham County
1995 - Bill Wade, Augusta County
1994 - John Henry Smith, Russell County
1993 - Robin Freeman, Chesapeake
1992 - Courtland Spotts, Pulaski County
1991 - Ted Bennett, Halifax County
1990 - Clinton Bell, Tazewell County
1989 - Rex Wightman, Shenandoah County
1988 - Tim Sutphin, Pulaski County
1987 - Zan Stuart, Russell County
1986 - J. W. Riley, Augusta County
1985 - John Bauserman, Fauquier County
1984 - Roy Meek, Pulaski County
1983 - Jonathan May, Rockingham County