Best Practices to Increase Your Lamb Crop

Presenter:

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Host/Moderator: Jay Parsons

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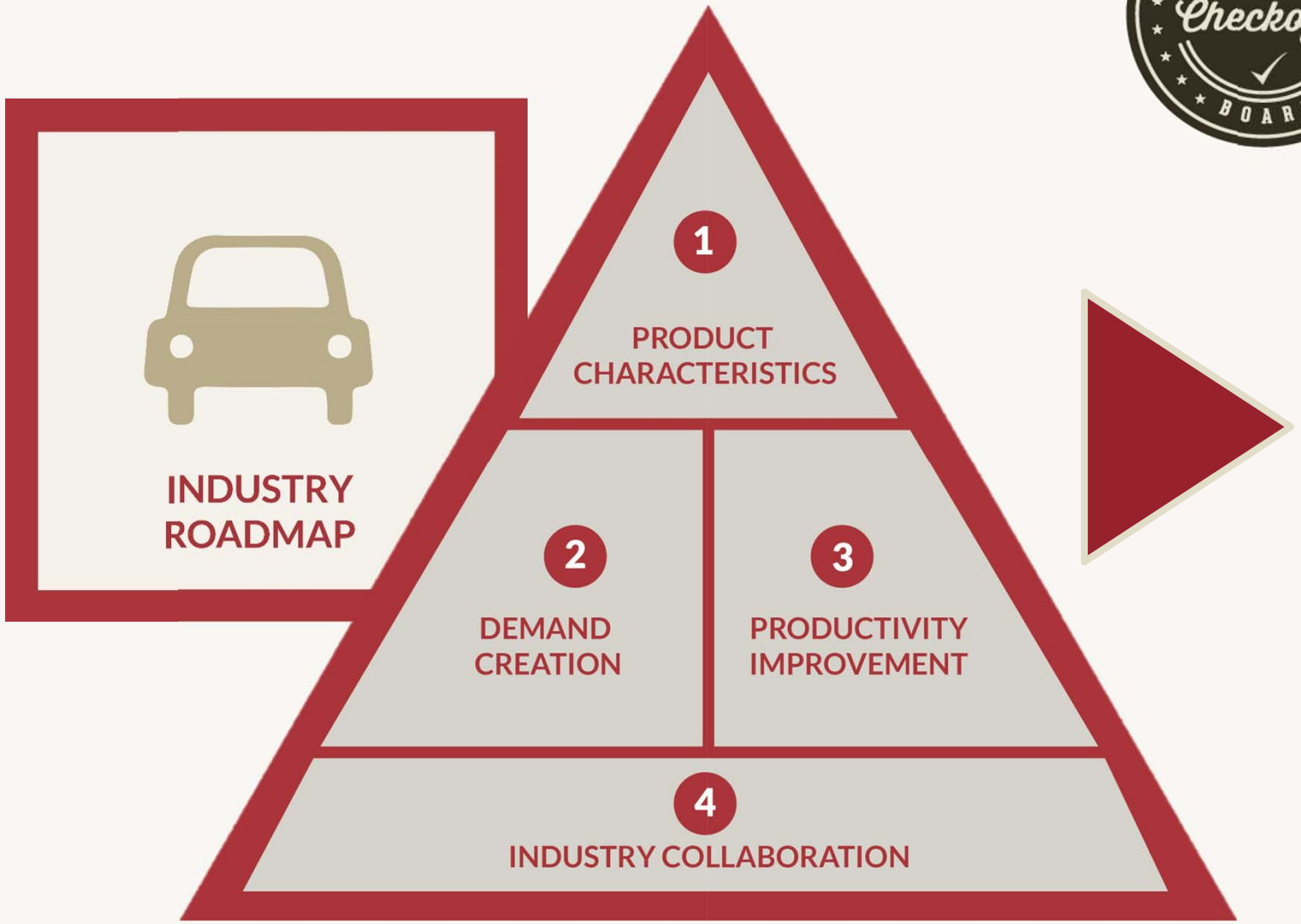
INDUSTRY COOPERATION

Misty Oaks Farm

Lewis White Dorpers

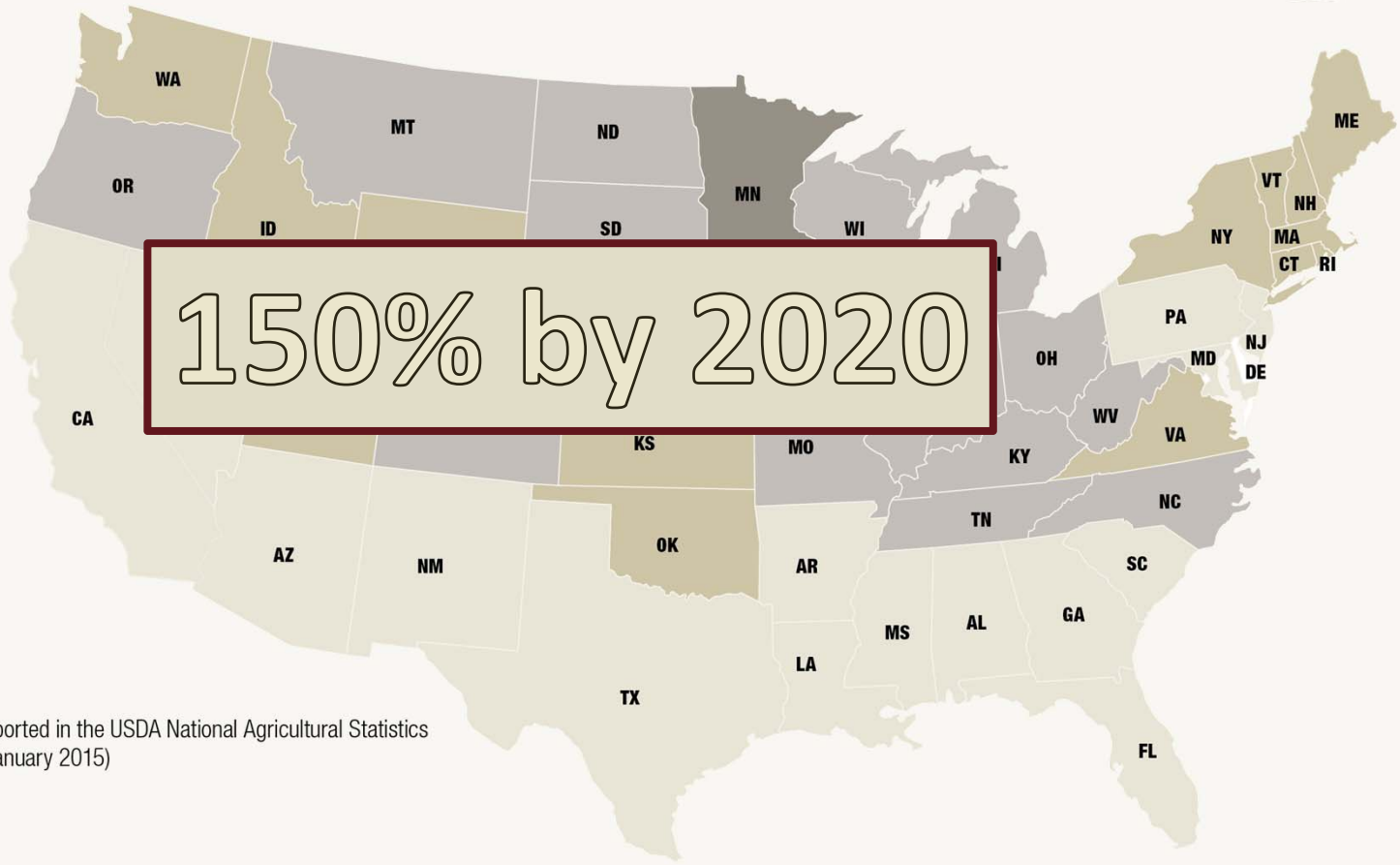

INDUSTRY ROADMAP
1
PRODUCT CHARACTERISTICS
2
DEMAND CREATION
3
PRODUCTIVITY IMPROVEMENT
4
INDUSTRY COLLABORATION

Current Lamb Crop

111% National Average

Lamb Crop Percentages by State

- Less than 100%
- 100- 124%
- 125-149%
- 150-175%



Based on lambs per 100 ewes as reported in the USDA National Agricultural Statistics Services Sheep and Goats Report (January 2015)

Reproductive Efficiency Task Force

Reid Redden, Ph.D. (Chair)
Texas A & M University

Kathy Bielek
Ohio sheep producer

Paul Lewis
Oregon sheep producer

Rodney Kott, Ph.D.
Montana State University (retired)

Dan Morrical, Ph.D.
Iowa State University

Reproductive Key Indicators[a]

KEY INDICATOR	RANGE FLOCK		FARM FLOCK		MY FLOCK	
	High Input	Low Input	High Input	Low Input	Current	Goal
Dry Ewes	< 7%	< 10%	< 5%	< 7%		
Lamb Crop						
Born	150%	NA	200%	175%	161%	
Docked	NA	120%	NA	NA		
Lamb Losses[b]	15%	17%[b]	11%	15%		
Lambs Weaned	127%	100%	178%	148%	138%	150%
Ewe Lambs Lambing	50%[c]	30%	85%	65%		

a Data for the Key Reproductive Indicators were generated by the Reproductive Efficiency Task Force based upon research, surveys and industry experience

b Lamb losses between docking and weaning

c Generally, ewe lambs are not bred in range flocks but this may provide a great opportunity to increase overall productivity

High input flocks: shed lambing, herded, multiple management groups, strategic supplementation and improved pastures, etc.

Low input flocks: range/pasture lambing, fenced pastures, simple management groups and limited supplementation

12 LAMB CROP BEST PRACTICES

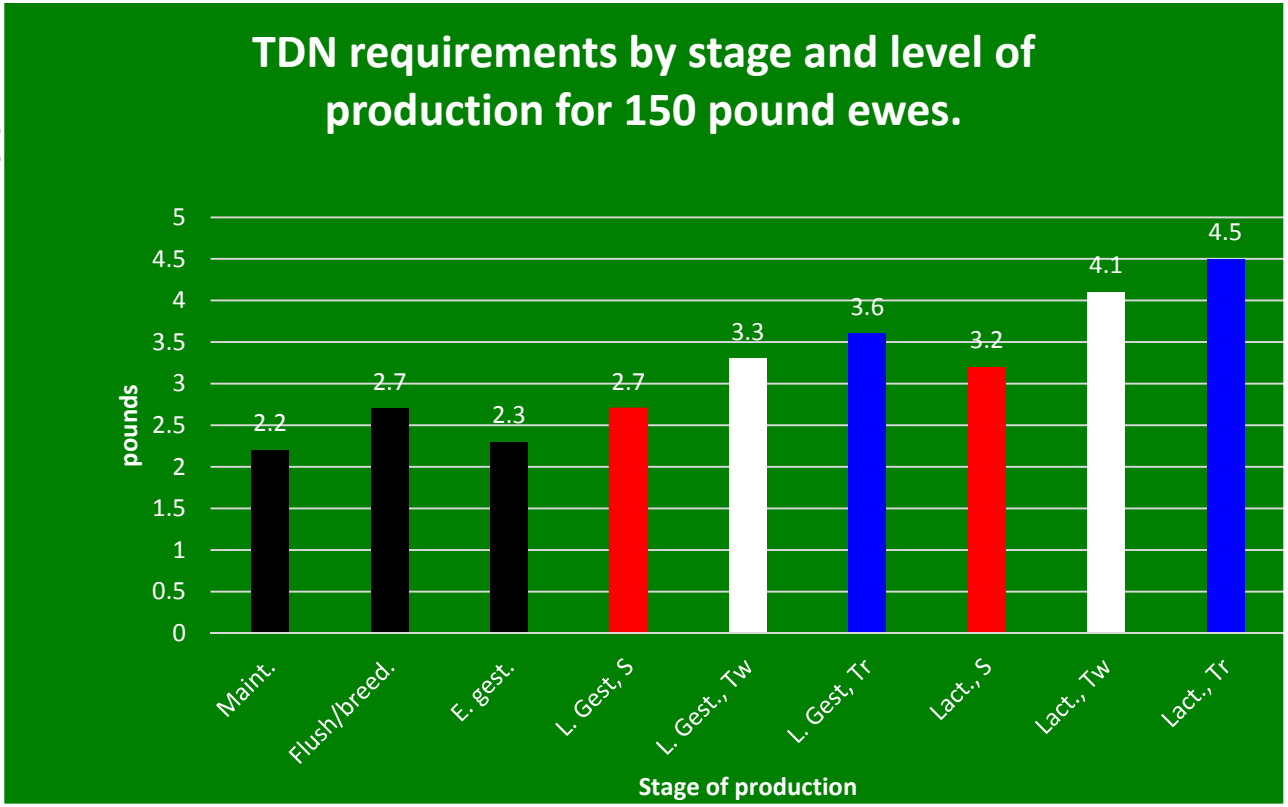
- Breed Ewe Lambs 7- 9 Months of Age
- Select for Prolific Genetics
- Use Cross-breeding
- Cull Under-performing Ewes
- Reduce Lamb Loss
- Test for Pregnancy Status
- Disease Prevention and Treatment
- Match Reproduction to Mgmt
- Test Rams
- Manage Seasonal Changes in Reproduction
- Accelerate Lambing Cycles
- Optimal Nutrition

Project Goal

- Gain Industry Acceptance of Need to Improve
- Awareness of Lamb Crop Best Practices
- Set Goal to Improve Lamb Crop
  - Implement 2 or 3 New Methods

1. Optimal Nutrition (Dan Morrical, ISU)

- 5 Time Periods
  - Maintenance
  - Breeding
  - Early Gestatio
  - Late Gestatio
    - Single
    - Twin
    - Triplet
  - Lactation
    - Single
    - Twin
    - Triplet



TEXAS A&M AGRILIFE EXTENSION

2. Breed Ewe Lambs (Bret Taylor, USSES)

- Common in Farm Flock, Not Common in Range Flock
- 10 - 20% of Flock
- Higher Lifetime Productivity
  - Heritable (0.18)
- Implementation Suggestions:
  - Retain Lambs from Highly Productive Dams
  - Commit to Solid Growth Program (0.5 lb/d)
    - Weaning to Breeding
    - Breeding to Lambing
  - Breed Ewe Lambs, Separately
  - Early Wean Lambs from 1-Year-Old Ewes

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3. Select for Prolific Genetics – (Dan Waldron, TAMU)

- Selection Challenges
  - Ewe
  - Limit
- Estima
  - Num

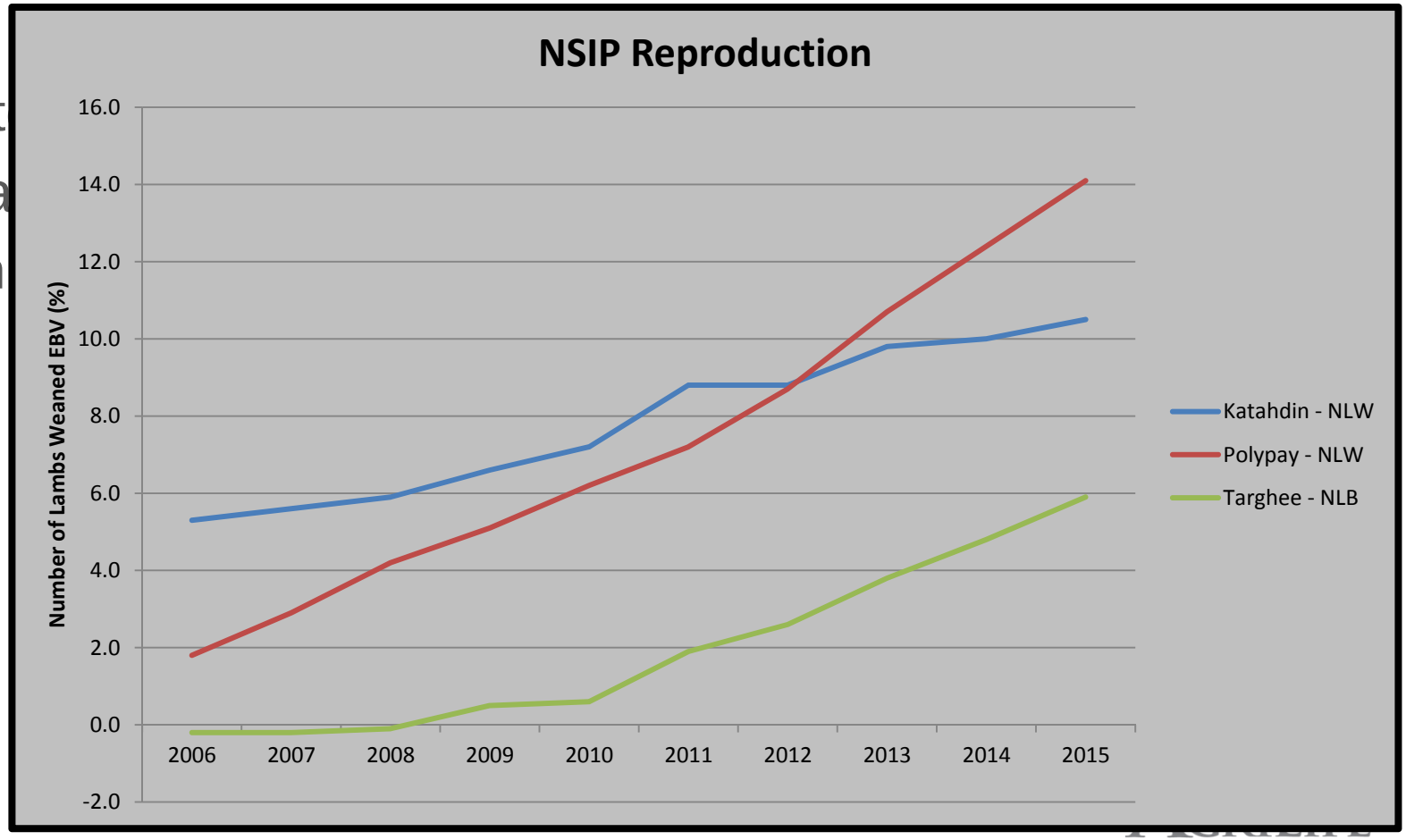

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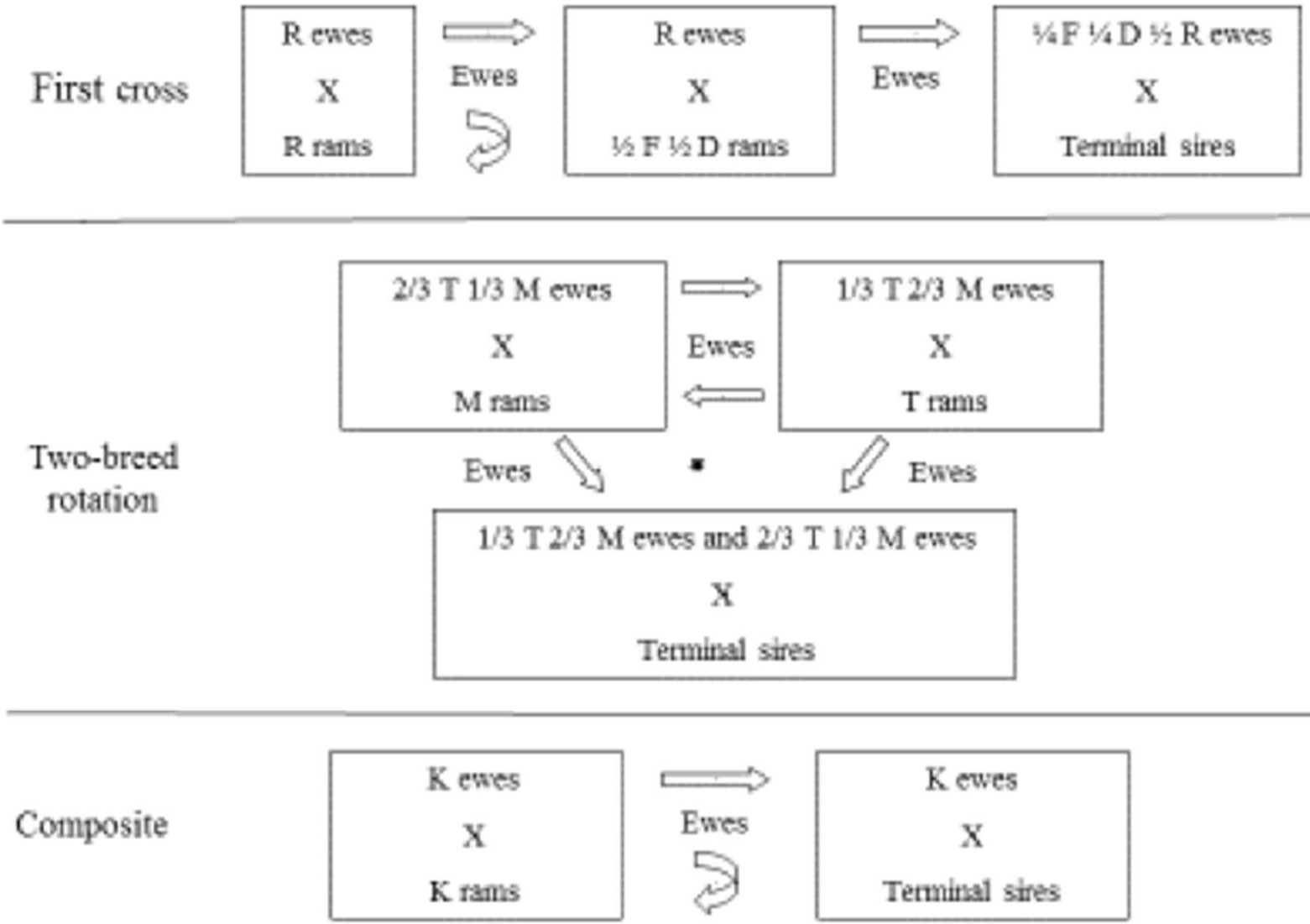
Figure 2. Diagram of three types of terminal crossbreeding systems where R = Rambouillet, F = Finnsheep, D = Dorset, T = Targhee, M = Montadale, and K = Katahdin



5. Cull Underperforming Ewes

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Primary reason for culling	Percent of sheep	Percent of sheep operations
Age	55.6	69.7
Failure to lamb	7.7	22.0
Teeth problems	7.6	8.0
Hard bag syndrome	7.1	24.1
Mastitis	6.7	20.9
Poor mothering	4.7	22.3
Other	3.7	7.6
Chronic weight loss	2.1	3.6
Economic issues	1.7	2.8
Other illness	1.2	2.4
Single births	1.1	3.9
Other reproductive problems	0.9	3.3
Total	100	

feed,
profit
m
help
nd

USDA APHIS, National Animal Health Monitoring System, April 2014

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6. Reduce Lamb Loss
Jeff Held (SDSU)

- 10 - 20% lamb crop mortality (US, UK, AU)
- 2 Categories
  - Prepartum – 2 to 4% natural causes
    - Aborting Diseases: Campylobacter, Chlamydia, & Toxoplasmosis
    - Ketosis (Twin Lamb Disease) – Improper nutrition late gestation
    - Low Birth Weight – Improper nutrition throughout pregnancy
  - Postpartum – most losses occur within 2 weeks
    - Starvation – Mismothering, Mastitis, “Hard Bag”
    - Hypothermia – Drop in Body Temperature
    - Predation – Confinement Rearing, Fencing, & Guardian Animals

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7. Test for Pregnancy Status
Geri Parsons & Cleon Kimberling

- Benefits
  - Allocate resources (feed, labor, facilities, & equipment) to animals that need it the most
- Methods of Detecting Pregnancy
  - Breeding Harness
  - Bagging
  - Blood Test (PSPB)
  - Ultrasound

8. Disease Prevention and Treatment Cindy Wolf – (U of Minnesota)

- 4 Categories
  - Nutritional
  - Infectious
  - Management-induced
  - Metabolic
- 3 Time Periods
  - Gestational
  - Pre-Weaning
  - Post-Weaning

9. Match Reproduction to Management
Dave Ollila (SDSU)

- Every Sheep Operation is Different
  - Land Access, Feed Resources, Facilities, Environment, Labor
  - Sheep are adaptable to a wide range of areas
  - Sheep respond to good management
- Set Realistic Goals
  - >200% lamb crop weaned – not realistic for arid range flocks
  - <100% lamb crop weaned – not realistic for farm flocks
- "Don't Let Tradition Blind Yourself to Opportunity"

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10. Test Rams

Geri Parsons & Cleon Kimberling

- Breeding Soundness Exam
  - Gross Physical Exam
  - Body Condition Score
  - Scrotal Circumference
  - Microscopic Semen Evaluation
    - B. Ovis Testing
- Why?
  - $400 annual cost per ram
  - Open or Late Bred Ewes are Costly

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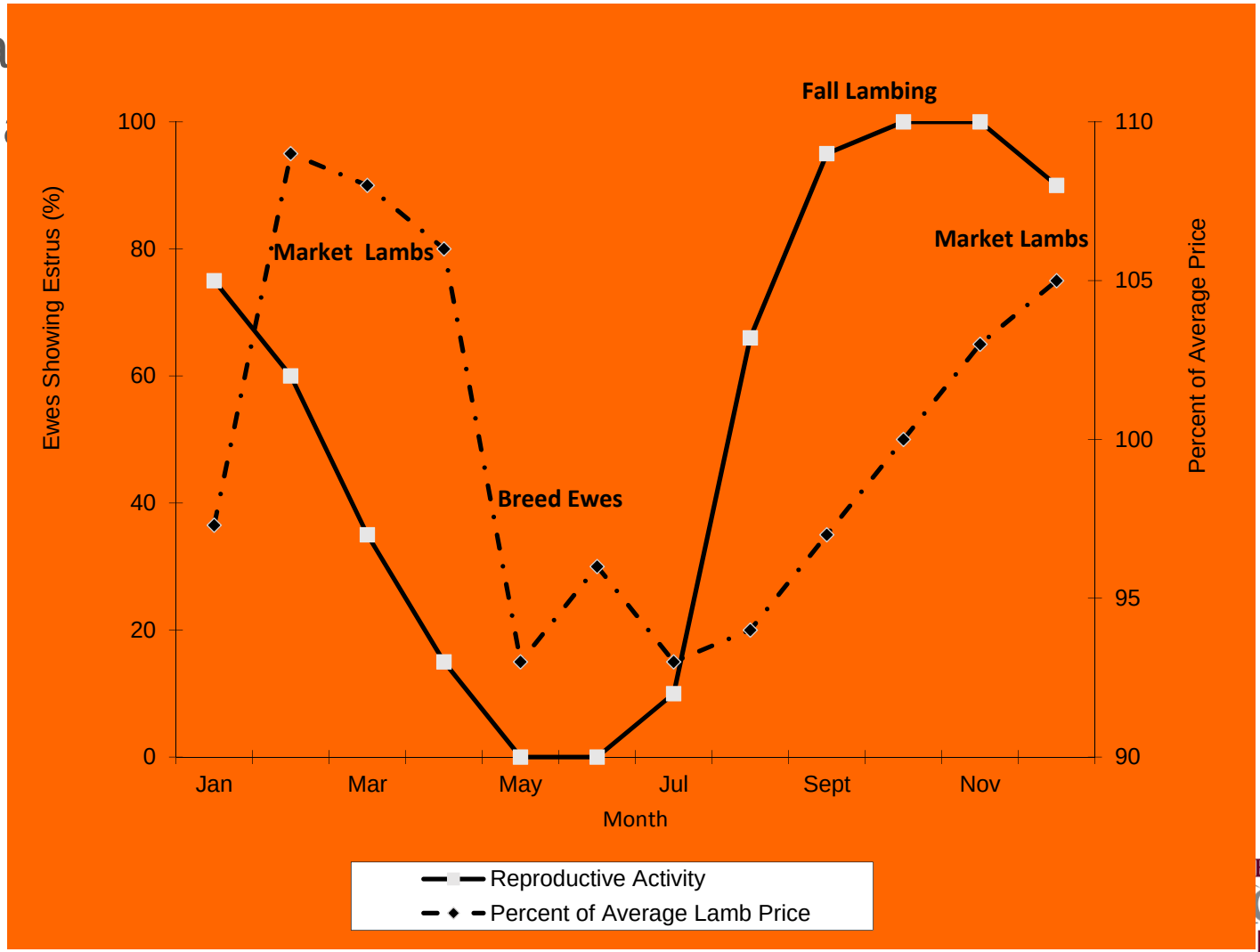
11. Manage Seasonal Changes in Reproduction
Marlon Knights (West Virginia University)

- Sea
  - Da



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12. Accelerated Lambing Cycles
Richard Ehrhardt – (MSU)

- Lambing More Than Once Annually

	STAR®	8 month
Minimum birth interval	7.2 months	7-9 months
Lactation length	42-72 days	~42-100 days
Breeding period	<30 days	<51 days
Time to rebreeding	72 days	~120 days
Lambing periods/year	5	3/6[1]
Breeding periods/year	5	3
Maximum births/ewe/year	1.67	1.5

[1]Lambing periods can be doubled to 6 if two 8-month systems are used within an operation and offset by 2 months

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Best Practices to Increase Your Lamb Crop

- Optimal **Nutrition**
- Breed **Ewe Lambs** at 7 to 9 Months of Age
- Select for Prolific **Genetics**
- Use **Crossbreeding**
- **Cull** Underperforming Ewes
- Reduce Lamb **Loss**
- **Test** for Pregnancy Status
- **Disease** Prevention and Treatment
- Match Reproduction to **Management**
- **Test** Rams
- Manage for **Seasonal** Changes in Reproduction
- **Accelerate** Lambing Cycles

1. www.LambResourceCenter.com

Questions

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