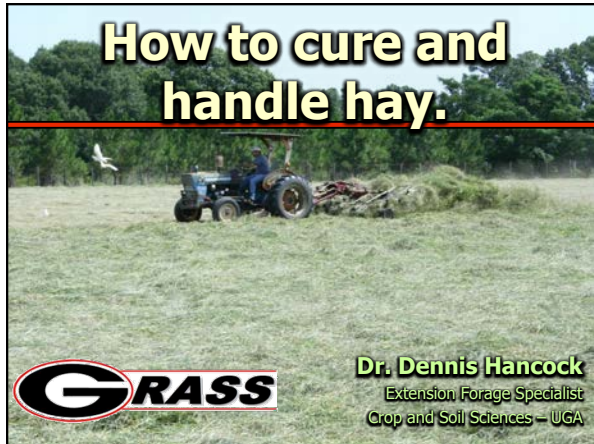


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How to Cure and Handle High Quality Hay

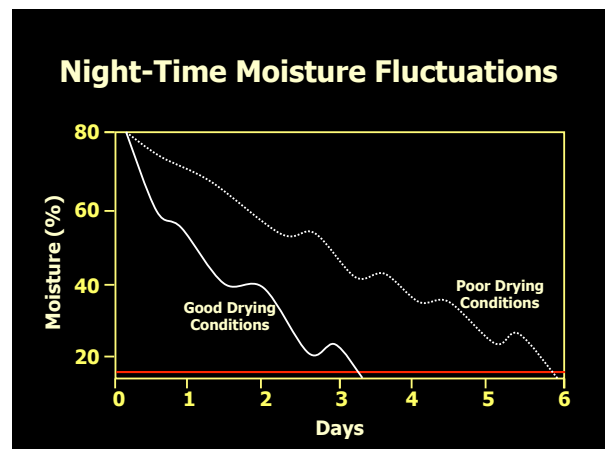
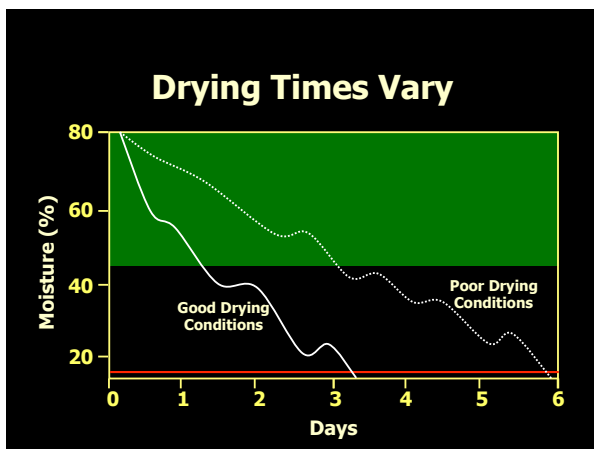
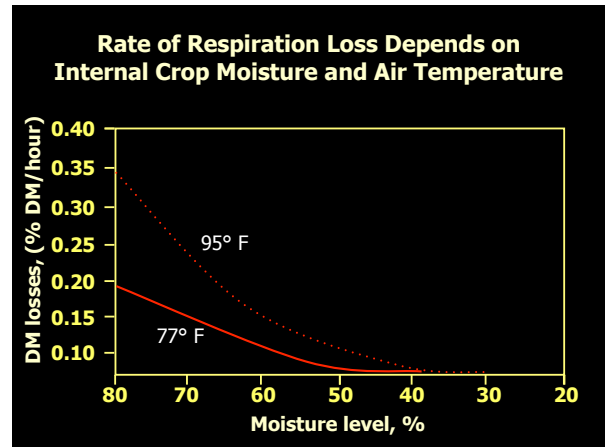


Components of Forage Waste:

- Field curing
- Harvesting
- Storage
- Feeding

Field curing
5-25% loss

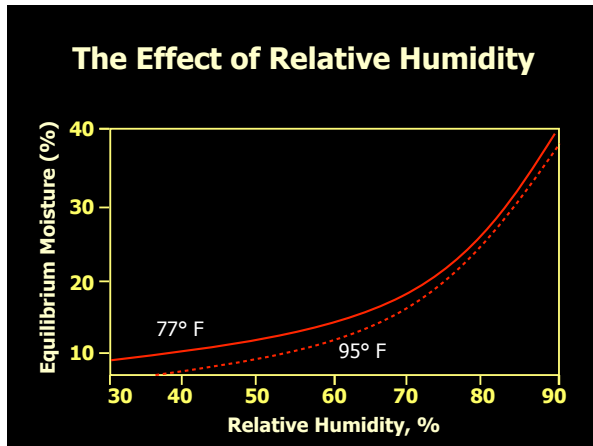
Harvesting
7-15% loss



Dr. Dennis Hancock
Extension Forage Agronomist


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Mower Options

- Sickle Cutterbar
 - 10-20% less expense
 - Require 30% less hp
 - Repairs are less expensive
- Disk Cutterbar
 - Faster ground speed
 - Cuts through ant hills better
 - Maintenance is 20-30% less
 - Better if crop is lodged





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Conditioner Styles

Impeller (flail)






Roller (crimper)


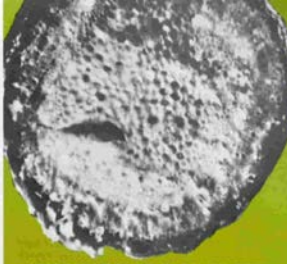



Conditioner Styles

Impeller (flail)	Roller (crimper)
Fine stemmed grasses	Thick stemmed grasses and Leafy (legumes)

Cross Section of Crop Stem

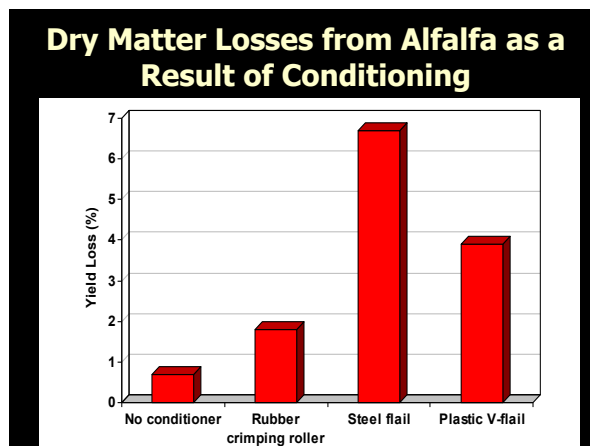
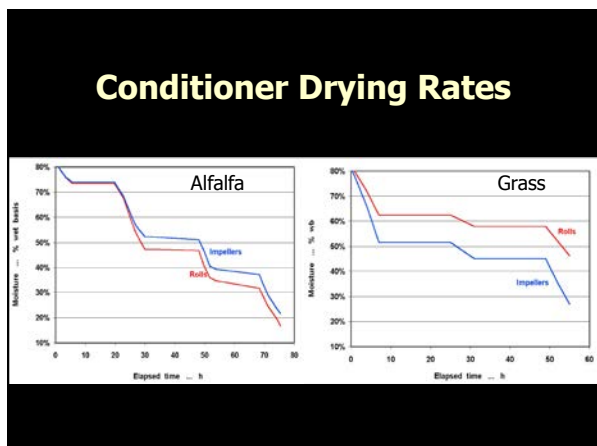



CONDITIONED ALFALFA STEM UNCONDITIONED ALFALFA STEM

- Stems have a waxy surface called cutin
- Conditioning should scratch or crack the stem surface for faster drying

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The Effect of Conditioner on the Relative Drying Rate of Alfalfa

	Relative Drying Rate	
	Not-tedded	Tedded
	----- (difference from control) -----	
No conditioner	**	←→ +17%
Rubber crimping roll	+18%	←→ +48%
Steel flail	+24%	←→ +50%
Plastic V-flail	+14%	←→ +35%

- ### "My Buddy, Ted"
- Increase hay-drying rates by 20-40% (~ 0.5 – 1 day)
 - DM Loss: Grasses (<3%) Legumes (7-10% +)
 - Breaks up clumps & distributes the crop over the entire area.
 - Increased sun
 - Fluffed for better air movement
 - Initial tedding: w/in 2-4 hrs (clumps break better)
 - Additional tedding? May be necessary for grass, probable for alfalfa

Hay Raking Systems

- Parallel bar rake
 - The lowest amount of hay loss, particularly with legumes.
 - Usually ground drive system.
- Rotary rakes
 - Some are dual function (rake or ted).
- Wheel rakes
 - Operated at a higher speed (saves time)
 - Tend to leave more in the field.

Hay Curing Management

- Conditioner? YES.
- Wide or narrow swath? Wide as possible
- When to mow? Early as possible
- Ted it? YES, but only when damp and toward the end of when the dew is on.
 - Avoid tedding legumes when > 50% moisture
- Moisture at raking?
 - 35-40% for legumes
 - 20-25% for grass/legume mixes
 - ~<20% for bermudagrass
- Moisture at baling?
 - Small square = 18%,
 - Round bales = 15%

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How to Cure and Handle High Quality Hay



Square vs. Round

- Round bales
 - Large (800-2000 lbs)
 - Easy to handle, if you have a tractor
 - Less expensive (\$/dry ton)
 - Lots of waste
 - > If stored outside
 - > If fed on ground
 - > If accessible over long periods
- Square (small rectangular) bales
 - Small (40-75 lbs)
 - Relatively easy to handle and store
 - More expensive (\$/dry ton)
 - Fed with less waste, usually
 - Labor intensive



Resources in Notebook or on Our Webpage

Extension Service
West Virginia University
Forage Management
Ed Reibman, Extension Forage Agronomist January 2002

PROPER HANDLING AND CURING OF HAY

COOPERATIVE EXTENSION SERVICE
UNIVERSITY OF KENTUCKY • COLLEGE OF AGRICULTURE
Quality Hay Production
Garry Langfield, Jimmy C. Henning, Mike Collins and Larry Seaton

Management of Hay Production
by Dr. Dirk Philipp and Dr. John A. Jennings

QUESTIONS?

