

FORAGE YIN AND YANG: HAY & PASTURES TYPES IN VIRGINIA



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COOL SEASON GRASSES + WARM SEASON GRASSES + LEGUMES = PASTURE AVAILABILITY (IF THAT FAILS, BUY HAY)

■ **Focus of This Session:**

- Review common hay types bought in Virginia; glance at a few of their nutrient values.
- Review common pasture grass and legume varieties in Virginia; list some of their characteristics.
- Scenario Discussion: time permitting, identify considerations of pasture grasses and legumes for Duke and Marie, pony owners.



VIRGINIA PASTURES: GRASS AND LEGUME FORAGE SPECIES FOR EQUINES

- Pasture Choice Considerations:
 - Adapted to the region.
 - Adapted to the soils.
 - Tolerant of environmental stresses.
 - Tolerant of close and frequent grazing.
 - Productive when pasture is needed.
 - Free of characteristics harmful to equines.
 - Matched to the equine owner's management abilities.
 - Matched to the animal's nutritional requirements.



HAY BOUGHT AND SOLD IN VIRGINIA (SMALL SQUARE BALES)

▪ <http://www.hayexchange.com/va.php>:

- Alfalfa/Grass?
- Alfalfa/Orchard
- Fescue
- Grass?
- Mixed Grass?
- Orchard
- Timothy
- Timothy Mix?



CREATING A MENTAL PICTURE



Equines



Dry Lot South



Dry Lot North



High Traffic Gate Area



Adjacent Paddock



HELPING DUKE & MARIE

Duke and Marie bought a pony and a miniature horse (ponies) for when the grandchildren visited.

Ponies aside, Duke and Marie have a low-input, goat and free-range poultry operation.

They maintain five pastures acres divided into five paddocks and one dry lot.

- Three lactating does, seven 2018 kids.
- Three open does.
- One buck, one companion wether.
- One guard donkey.
- Two flocks of layers, 20 birds total.



COOL SEASON PERENNIAL PASTURE GRASSES

- Kentucky Bluegrass:

- Forms dense sod, reaches 12" to 20".
- Has rhizomes that help cover torn turf.
- Adapts well to Northern Piedmont.
- Grows well April to June and September to October.
- Grows best in productive soils with medium drainage.



- Kentucky Bluegrass Does Not:

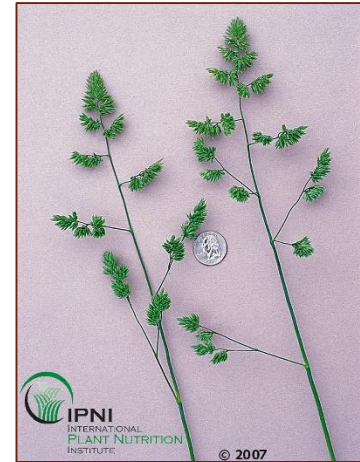
- Thrive in drought or high temperature seasons.
- Persist well in close or continuous grazing.
- Grow well in July and August.
- Produce as much forage as Orchardgrass or Tall Fescue.



COOL SEASON PERENNIAL PASTURE GRASSES

■ Orchardgrass:

- Forms in clumps, can reach 20" to 40".
- Adapts well to Northern Piedmont.
- Grows well March to June and September to November.
- Grows best in medium to well drained soils.
- Is a popular grass for hay.



■ Orchardgrass Does Not:

- Thrive in wet soil, drought or high temperature seasons.
- Persist well in close or continuous grazing.
- Grow well in July and August.
- Recover well if grazed below 3"-4".



COOL SEASON PERENNIAL PASTURE GRASSES

- Timothy:

- Forms in clumps, can reach 20" to 40".
- Grows best April to June, and September to November.
- Grows best in medium to well drained soils.
- Is a popular grass for hay.

- Timothy Does Not:

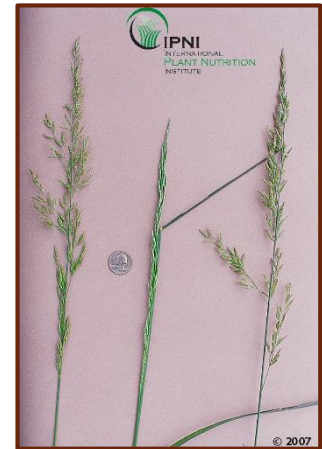
- Recover well like other perennials.
- Serve well as a pasture grass in Virginia.



COOL SEASON PERENNIAL PASTURE GRASSES

■ Tall Fescue:

- Forms a dense sod, can reach 20" to 40".
- Adapts well to Northern Piedmont.
- Withstand heavy grazing better than other cool season grasses.
- Grows well March to June and September to November.
- Tolerates acidic and poorly drained soils.
- Can be stockpiled.
- Is a source for endophyte toxicosis.



■ Tall Fescue Does Not:

- Serve as a good pasture grass for brood mare operations.
- Grow well in July and August.



COOL SEASON ANNUAL PASTURE GRASSES

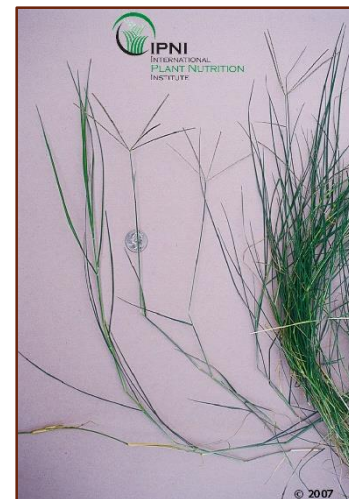
- Small Grains (Rye, Wheat, Barley, Oats):
 - Can extend pasture availability during late fall, early winter, and early spring.
 - Adapt well to Northern Piedmont.
 - Introduce risks: ergot fungus leading to equine ergotism.
 - Must be replanted each year.
- Small Grains Do Not:
 - Serve as a primary equine pasture species.
 - Recover well if overgrazed or trampled.



WARM SEASON PERENNIAL GRASSES

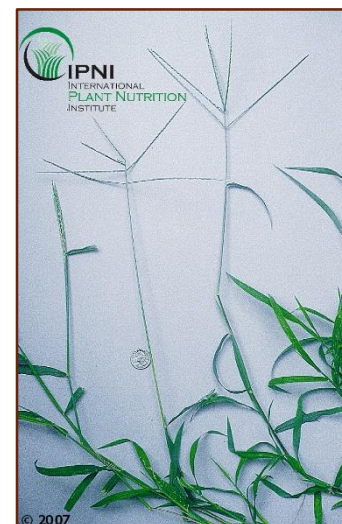
- Bermudagrass:
 - Forms dense sod, reaches 15" to 24".
 - Adapts well to Northern Piedmont.
 - Grows well in June, July, and late August.
 - Relatively tolerant of trampling and overgrazing.
 - Grows best in well drained, productive soils.

- Bermudagrass Does Not:
 - Thrive in wet soils.
 - Continue productivity after a frost event.



WARM SEASON PERENNIAL GRASSES

- Crabgrass:
 - Reaches 12'' to 24''.
 - Adapts well in Northern Piedmont, better in Southern Piedmont and Coastal Plains.
 - Grows well in slightly acidic and well-drained soils.
 - Grows well June to September.
- Crabgrass Does Not:
 - Thrive from fall to late spring.



LEGUMES:



- Common (Dutch) White Clover:
 - Form low growing covers; can reach 2'' to 5''.
 - Grows best April to June, and September to November.
 - Grows best in soils with good moisture holding capacity.
 - Tolerates close grazing.
 - Recovers well following drought.

- Common (Dutch) White Clover Does Not:
 - Tolerate drought well.



LEGUMES:



- Ladino White Clover:
 - Larger and taller than Common White Clover.
 - Often planted with cool season perennial grasses.
 - Grows best April to June, and September to November.
 - Grows best in fertile soils with good moisture holding capacity.
 - Tolerates close grazing.
 - Recovers well following drought.

<https://greatbasinseeds.com/product/ladino-clover/>

- Ladino White Clover Does Not: Tolerate drought well.
 - Grow well in shallow, dry soils.
 - Last more than four years without replanting.



LEGUMES:



- Red Clover:
 - Is tall, can reach 30” most often less than 15”.
 - Grows well April to October.
 - Relatively drought resistant for a clover.
 - Grows best in soils with good moisture holding capacity.
 - Associated with “slobbers” in horses.

- Red Clover Does Not:
 - Persist well beyond 2 – 3 years.





Equines



Dry Lot South



Dry Lot North



High Traffic Gate Area



Paddock Adjacent to Dry Lot



HAY NUTRITIVE VALUES ARE NOT STATIC, ONE VALUE DOES NOT “WORK” FOR ALL EQUINES

	DM%	CP%	DE Mcal/lb	Lys%	Ca%	P%
Orchardgrass Hay*	90.6	7.60	0.78	0.25	0.24	0.27
Timothy Hay*	88.3	6.90	0.72	0.31	0.34	0.13
Fescue (KY-31) Hay*	91.9	11.8	0.86	0.41	0.40	0.29
Mix. Grass/Leg. Hay***	89.7	18.2	0.95	0.77	0.97	0.37
Burmudagrass Hay*	87.1	7.30	0.79	0.36	0.24	0.17
Alfalfa Hay**	87.1	17.0	0.89	0.87	1.19	0.24
	87-90%	8-14%	.76-.94%	>.043xCP	0.2-1.5%	.15-.35%
DM Dry Matter, CP Crude Protein, DE Digestible Energy, Lys Lysine, Ca Calcium, P Phosphorous						

*As fed basis, full/late bloom Table 5 TAMU Pub HRG-007

**NAS 2007 Nutrient Requirement for Horses Working Doc

***Mature, NAS 2007 Nutrient Requirement for Horses Working Doc

Tim Mize, the next presenter,
will address hay quality.



VIRGINIA PASTURES: GRASS AND LEGUME FORAGE SPECIES FOR EQUINES

That's It!

