

Seeding Mixes for Pastures

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Start by planting fenceposts



Increasing pasture resilience through diversity

- Species diversity within and among paddocks
- Functional group diversity (grasses, legumes, forbs/broadleafs)
- Grass and legume structure
- Warm and cool season grasses
- Varying grazing/haying management
 - stockpiling
 - haying
 - outwintering

Forbs

- Chicory



- Plantain



Selecting Grass Varieties

- If purchasing a pre-made pasture mix
 - Watch out for tall fescue
 - Consider having a custom blend made
- Variety selection
 - High yielding varieties
 - Winterhardiness
 - Medium to late maturity
 - Consistent yield throughout the growing season
 - Rust resistance
 - Palatability

New Tall Fescues

- Endophyte-Free
- Novel-Endophyte
- Soft-Leaf



Know your soils

Poorly Drained

Clay

Silty Clay

Clay Loam

Silty Clay Loam

Well-Drained

Silt Loam

Sandy Clay

Sandy Clay Loam

Loam

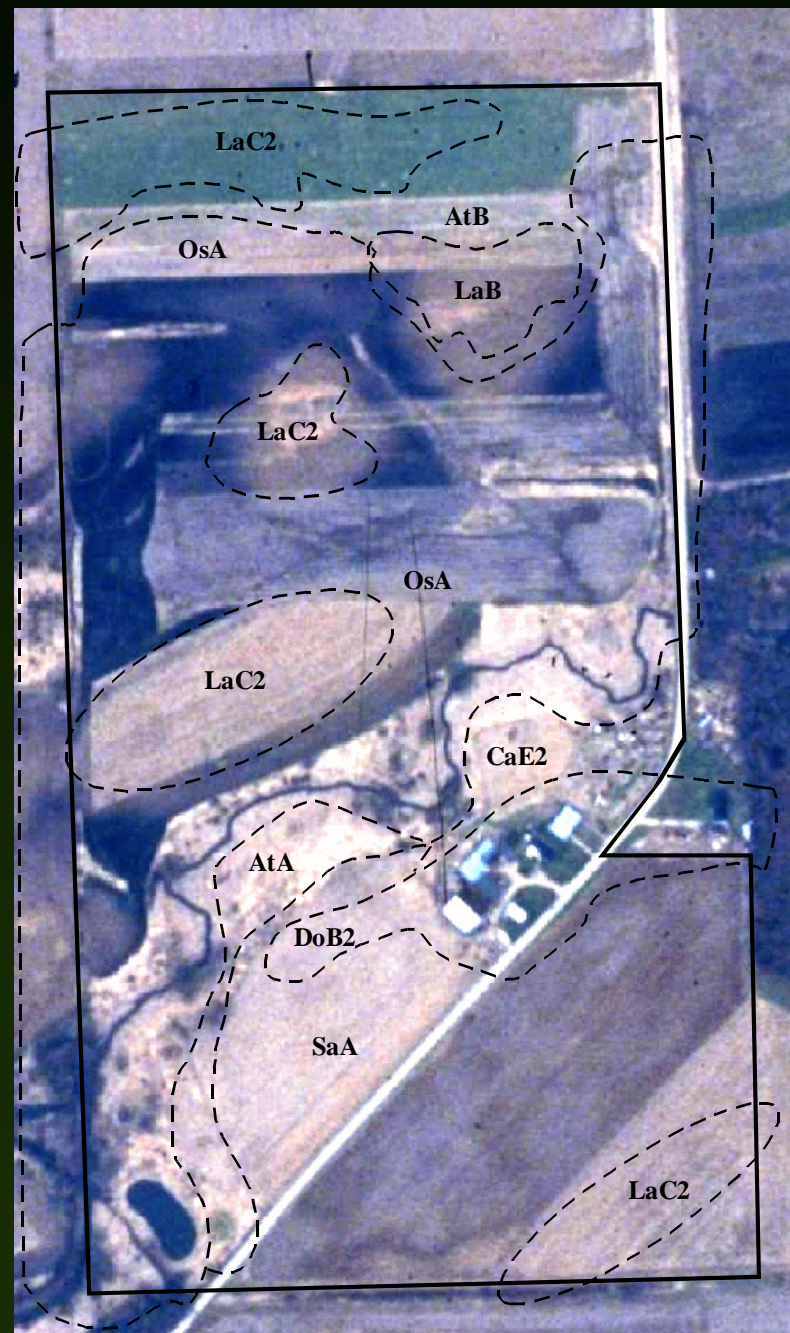
Silt

Droughty

Sandy Loam

Loamy Sand

Sand



What are your needs?

- Soil type and landscape factors
- Livestock nutritional needs
- Hay, pasture, both?
- Heavy or frequent use (holding areas close to the barn?)

How we diversify pastures

- Hayfield
- Main-season pastures
- Stockpile
- Outwintering area
- Calving pastures



Broadly Adapted Species

- Orchardgrass
- Quackgrass
- Meadow Fescue
- Kentucky Bluegrass
- Red Clover
- Ladino Clover



Meadow Fescue



Grasses and Legumes for Poorly Drained Soils

- Reed Canarygrass
- Timothy
- Tall Fescue
- Meadow Fescue
- Alsike Clover
- Ladino Clover

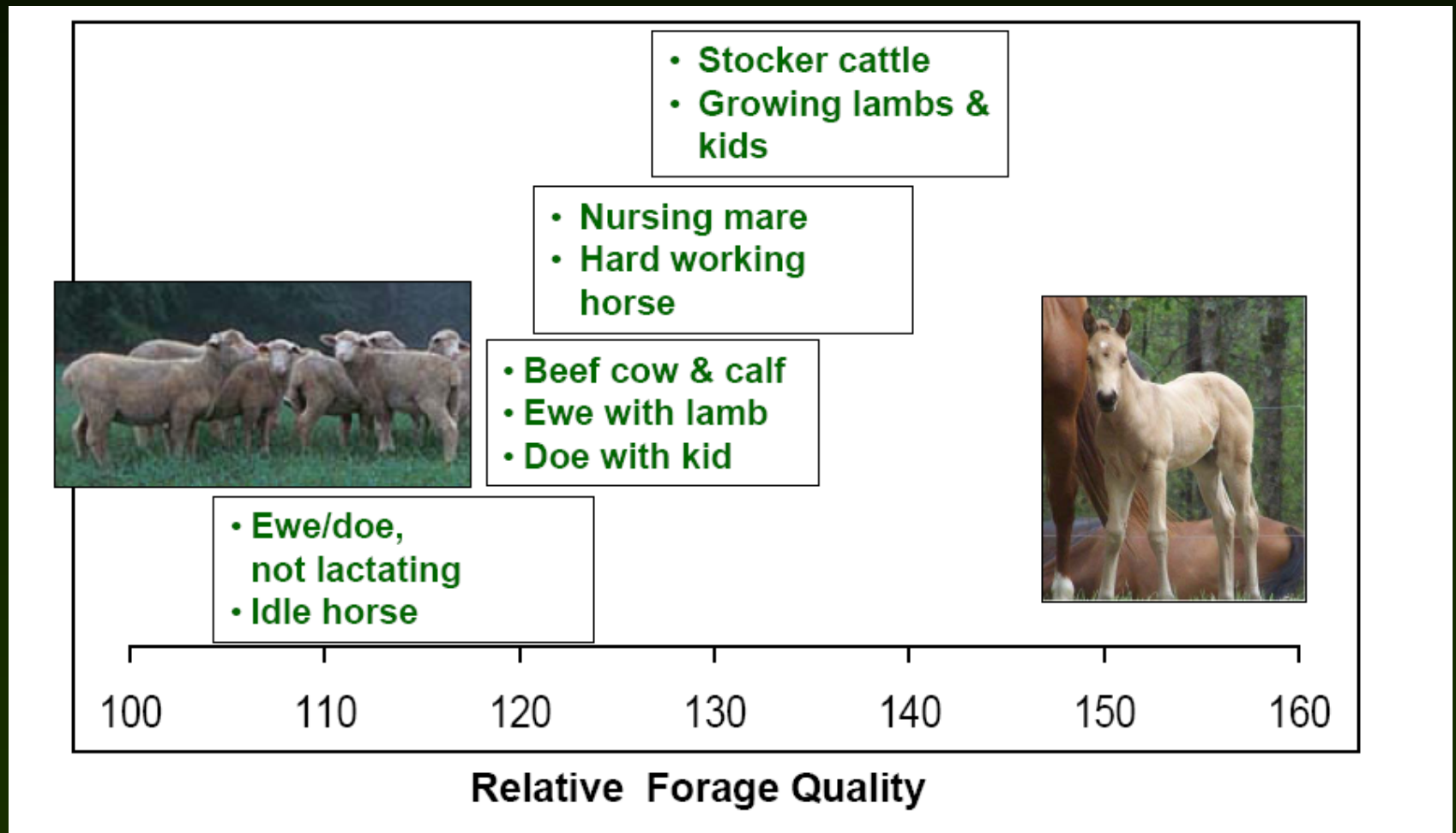


Grasses and Legumes for Droughty Soils

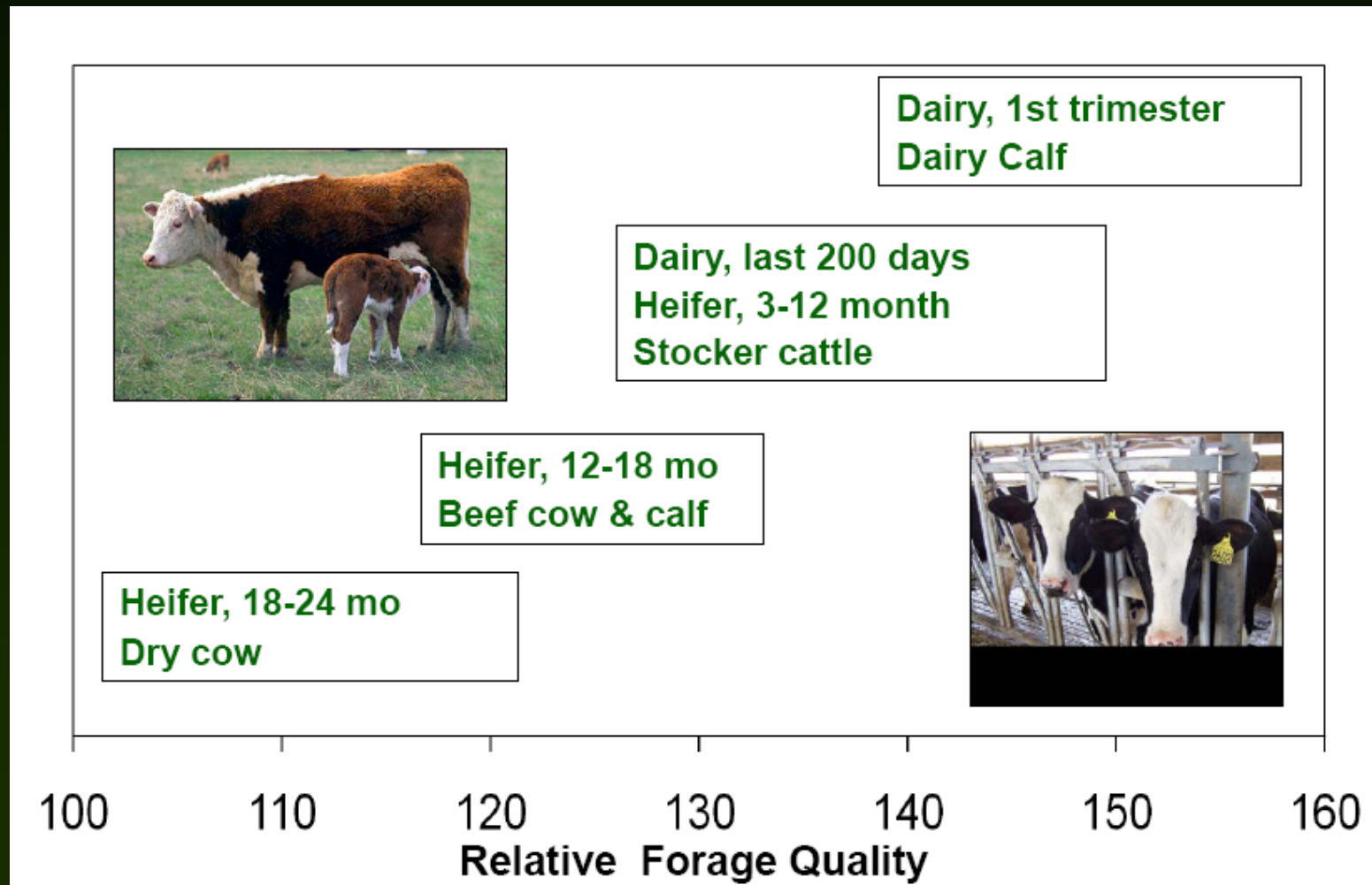
- Alfalfa
- Orchardgrass
- Reed Canarygrass
- Smooth Bromegrass
- Warm Season Grasses



Forage Quality Needs of Livestock Classes



Forage Quality Needs of Livestock Classes



Protein needs of ruminants

- Lactating cows need pasture protein levels of 16 to 18%.
- Growing animals (steers and heifers) need protein levels of 10 to 12%.
- Many well managed pastures have protein levels that are too high.

Pasture quality is 1 part species composition and 9 parts MANAGEMENT

- 30 days
- 1 paddock

- 30 days
- 30 paddocks

Rest-Rotation Continuum



- Higher quality
- Higher yield
- More diversity
- More flexibility



High Quality Dairy Pasture

High protein, high energy

A short-term, high quality pasture:

- Perennial or annual ryegrass and ladino clover



A permanent pasture adapted to frequent rotation:

- Meadow fescue
- Disease resistant, late-maturing orchardgrass
- Ladino clover

Growing steers and heifers

Moderate protein, high energy

Perennial cool-season

- Cool season perennial grasses adapted to location
- Red clover

Annual pasture

- Sorghum-sudangrass
- Brassicas
- Small grains
- Cocktail mixes

Native warm season pasture

- Mix of big bluestem, indiangrass, switchgrass
- Red clover, birdsfoot trefoil
- *Manage for lower protein, higher digestible fiber*

Small Ruminants & Horses

- Include species tolerant of short grazing
- Moderate quality
- Orchardgrass
- Kentucky bluegrass
- Perennial ryegrass
- Ladino clover
- Birdsfoot trefoil or chicory
- Avoid red clover for sheep pastures (phytoestrogens)
- Consider trefoil or chicory for anti-parasite benefits



Mixed use pastures

Hay & Pasture

- Alfalfa
- Orchardgrass
- Smooth brome?
- Avoid red clover

Heavy or frequent use area

- Kentucky bluegrass
- Tall fescue
- White clover



Creating a Custom Pasture Mix

Base Seeding Rates

Grasses	Lb/a	Legumes	Lb/a
Kentucky Bluegrass	15	Alfalfa	15
Festulolium	12	Alsike Clover	4
Meadow Fescue	12	Birdsfoot Trefoil	8
Orchardgrass	10	Kura Clover	8
Perennial ryegrass	20	Ladino Clover	4
Reed Canarygrass	6	Red Clover	10
Smooth Brome	16	Forbs	Lb/a
Tall Fescue	12	Chicory	5
Timothy	8	Plantain	10

Creating a Custom Pasture Mix

Adjustment Factors

- **Choose desired species.**
- **Adjust base rates for proportions desired in final mix.**
- **Adjust for poor seedbed conditions: add 25%.**
- **Adjust for poor weather conditions: add 50%.**

Creating a Custom Pasture Mix

Example: Hay/Graze Mix

- **Desired final mixture: 30% Orchardgrass, 30% smooth brome, 40% alfalfa. Seedbed conditions are good, but weather conditions are poor.**
- **Orchardgrass: $10 \text{ lb/a} \times 1.50 \times 0.30 (30\%) = 5 \text{ lb/a}.$**
- **Smooth brome: $16 \text{ lb/a} \times 1.50 \times 0.30 = 7.2 \text{ lb/a}.$**
- **Alfalfa: $15 \text{ lb/a} \times 1.50 \times 0.40 = 9.0 \text{ lb/a}.$**

Creating a Custom Pasture Mix

Example: Low, Wet Soil

- **Desired final mixture: 33% reed canarygrass, 33% alsike clover, 33% timothy. Seedbed conditions are poor, but weather conditions are good.**
- **Reed canarygrass: $6 \text{ lb/a} \times 1.25 \times 0.33 = 2.5 \text{ lb/a}$.**
- **Alsike Clover: $4 \text{ lb/a} \times 1.25 \times 0.33 = 1.7 \text{ lb/a}$.**
- **Timothy: $8 \text{ lb/a} \times 1.25 \times 0.33 = 3.3 \text{ lb/a}$.**

Pasture productivity is the key to profitability....



**Management
is the key to
pasture
productivity.**

