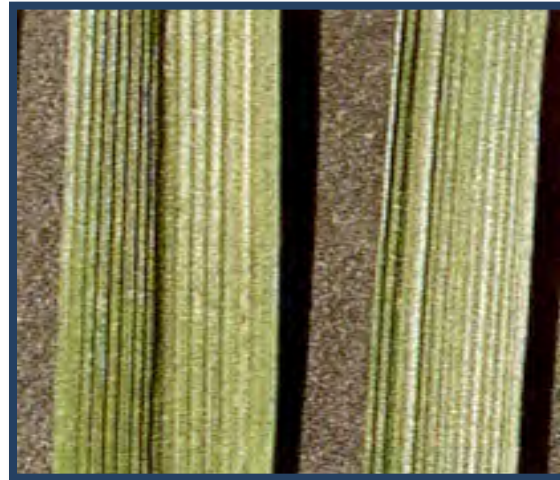


Species that should not be used as forage for horses or should be used with caution:



K31 - Tall Fescue

- ✓ Planted throughout the US
- ✓ Contains an endophyte that produces the toxin, ergovaline
- ✓ Toxin benefits the plant by:
 - Enhancing disease and insect resistance
 - Increasing drought tolerance



K31 - Tall Fescue

Toxin causes reproductive problems if mares graze endophyte infected tall fescue in last trimester.

- **Retained Placenta**
- **Abortion**
- **Prolonged Gestation**
- **Dissmature Foals**



K31 - Tall Fescue Management

- ✓ Check for tall fescue in pastures. Horses generally won't select K31 until after frost.
- ✓ Laboratory analysis for toxin
- ✓ Remove horses from infected pastures 30 to 90 days prior to foaling.
- ✓ Plant only endophyte-free or endophyte "friendly" tall fescue varieties.



Alsike Clover

- ✓ Common in some fields
- ✓ Symptoms: photosensitization; (rarely) acute liver disease.
- ✓ Management: remove horse from pasture, manage pastures to promote grass, eliminate clover.



Forage Species that CAN BE USED for Horses:



Kentucky Bluegrass

- ✓ Early maturity
- ✓ **Forms a dense sod or turf**
- ✓ 12"-18" in height
- ✓ Deep blue green color
- ✓ Canoe shaped leaf tip



Perennial Ryegrass

- ✓ Not winter or drought tolerant
- ✓ Narrow, pointed, glossy leaves
- ✓ 15" – 24" in height
- ✓ Bunch-type grass
- ✓ Tolerates frequent grazing
- ✓ Very competitive
- ✓ **Rapid establishment**
- ✓ Tends to have a high sugar content.



Orchard Grass

- ✓ Forms large clumps
- ✓ 2-2½ ft. in height
- ✓ Folded leaf blades
- ✓ “Soft” texture
- ✓ Blue green color
- ✓ Hay or pasture
- ✓ Responds well to rotational grazing



Tekapo Orchardgrass

- ✓ Developed for pasture use
- ✓ Other cultivars now available
- ✓ Low crown
- ✓ Dense growth habit
- ✓ Can be grazed closer to the ground
- ✓ Soft leaves
- ✓ High palatability



Timothy

- ✓ Bunch-type
- ✓ High quality forage
- ✓ **Low** drought tolerance
- ✓ **Low** continual grazing tolerance
- ✓ **Low** tolerance to wet conditions



Timothy

Cereal rust mites - insects found in timothy - early spring

- ✓ **feed on nutrients and water in leaves**
- ✓ **reduce quality by removing nutrients**
- ✓ **reduce forage yield**
- ✓ **shorten the life of the stand.**



Smooth Bromegrass

- ✓ **Sod-forming grass**
- ✓ “M” construction in middle of leaf
- ✓ Medium to late growth
- ✓ Tall, high yielding grass
- ✓ Hay and pasture use



Reed Canarygrass

- ✓ High tolerance of drought, wet soils, low pH, and cold
- ✓ High alkaloid content in older varieties reduces palatability
- ✓ Newer varieties better
- ✓ Low palatability when mature



Festulolium

- **New variety (meadow fescue and perennial ryegrass)**
- **More winter hardy than perennial ryegrass.**
- **Summer growth, insect and disease resistance is similar to fescue**
- **Endophyte-free**



Alfalfa

- Legume
- Best when combined with grass forages
- High drought tolerance due to deep tap root
- Low tolerance to wet soils and low pH
- Insects and disease may reduce survival.



Red Clover

- Legume
- Large purple flowers
- Best when mixed with grass in horse pastures
- Can cause horses to “slobber” due to a fungus that can irritate salivary glands



White/Ladino Clover

- White “C” on each leaflet
- White flowers
- Spreads by stolons and seeds
- Persists under heavy grazing pressure
- High tolerance to poor soils wet soils, drought, and low Ph
- May cause horses to “slobber” due to a fungus that can irritate salivary glands



Seeding The Grass Species

- Reduce existing grass competition....overgraze in the fall and winter
- Disturb the soil with tillage
- Plant by broadcasting, or use a planter or no-till drill.
- Cover seed with soil and ensure good seed-to-soil contact
- Once grass starts growing, try to avoid shading by the old grass species...*Mow!*
- Remove horses for 6-12 months, and allow grass to become established

Pasture Tillage

- If you are doing a complete renovation, the soil can be worked.
- Pastures that had high traffic can benefit from deep tillage such as moldboard plowing or chisel plowing to eliminate compaction.
- Soil should then be disked and firmed with a cultipacker to form a firm seedbed.



Pasture Tillage

- **If you are doing a partial renovation, the best method is to seed pastures with a no-till drill**
 - **Drill cuts the soil and places the seed directly into the soil**
 - **Provides the best seed-to-soil contact**
 - **Does not disturb the soil**
 - **Reduces the risk or eliminates soil erosion**

No-Till Drill

