



Value of Grass Mixed with Alfalfa for Dairy Cattle

A Little Grass Could be a Good Thing

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Grass feeding: Perceptions

- Confinement dairies:
 - Grass perceived to be too high in fiber/too low in quality for high producing dairy cows
 - Corn silage a higher yielding alternative to perennial or annual grasses
 - Pure alfalfa stands easier to manage
- Pasture based dairies:
 - Have challenged perceptions about grass
 - Have created research opportunities

Why incorporate some grass into dairy rations?

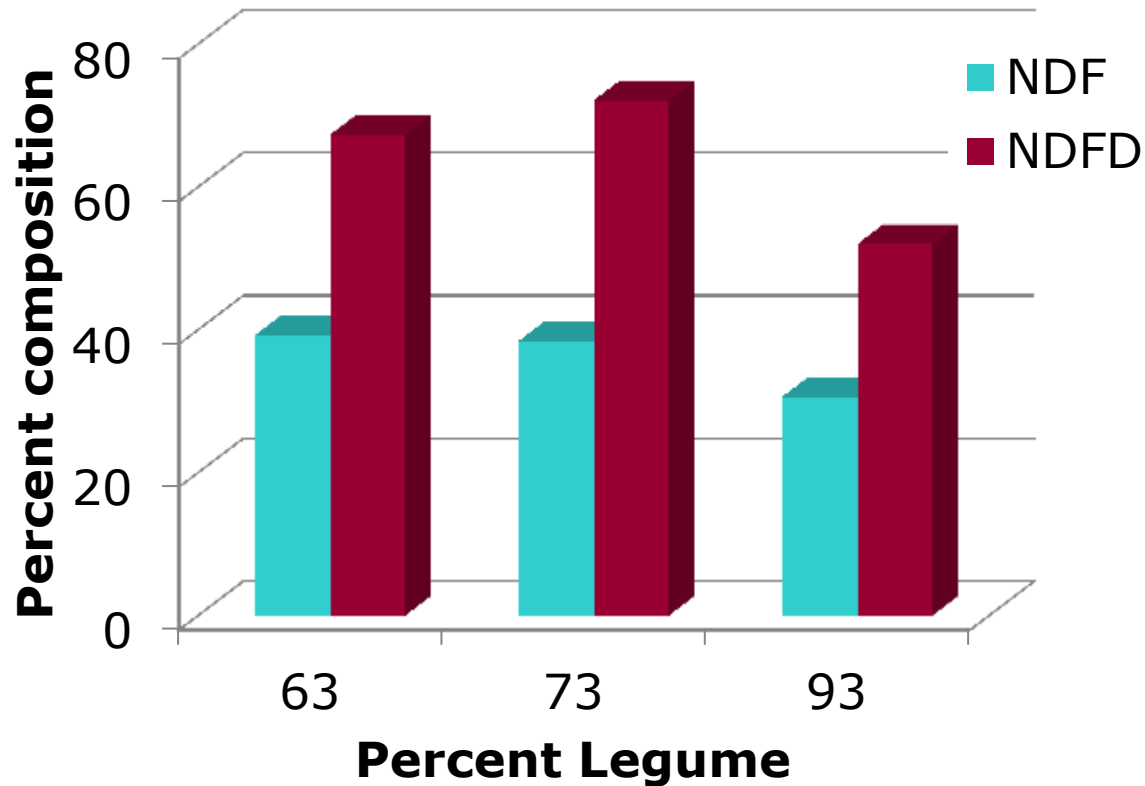
Agronomic

- Improve yields of seeding year stands
- Faster drying
- Less risk of winterkill
- Manure management

Nutrition

- Higher total fiber with grass/legume mixtures than alfalfa
- Higher proportion of digestible fiber than alfalfa or CS
- Possible good fit with high NFC, low fiber diets (i.e. high corn silage diets)?

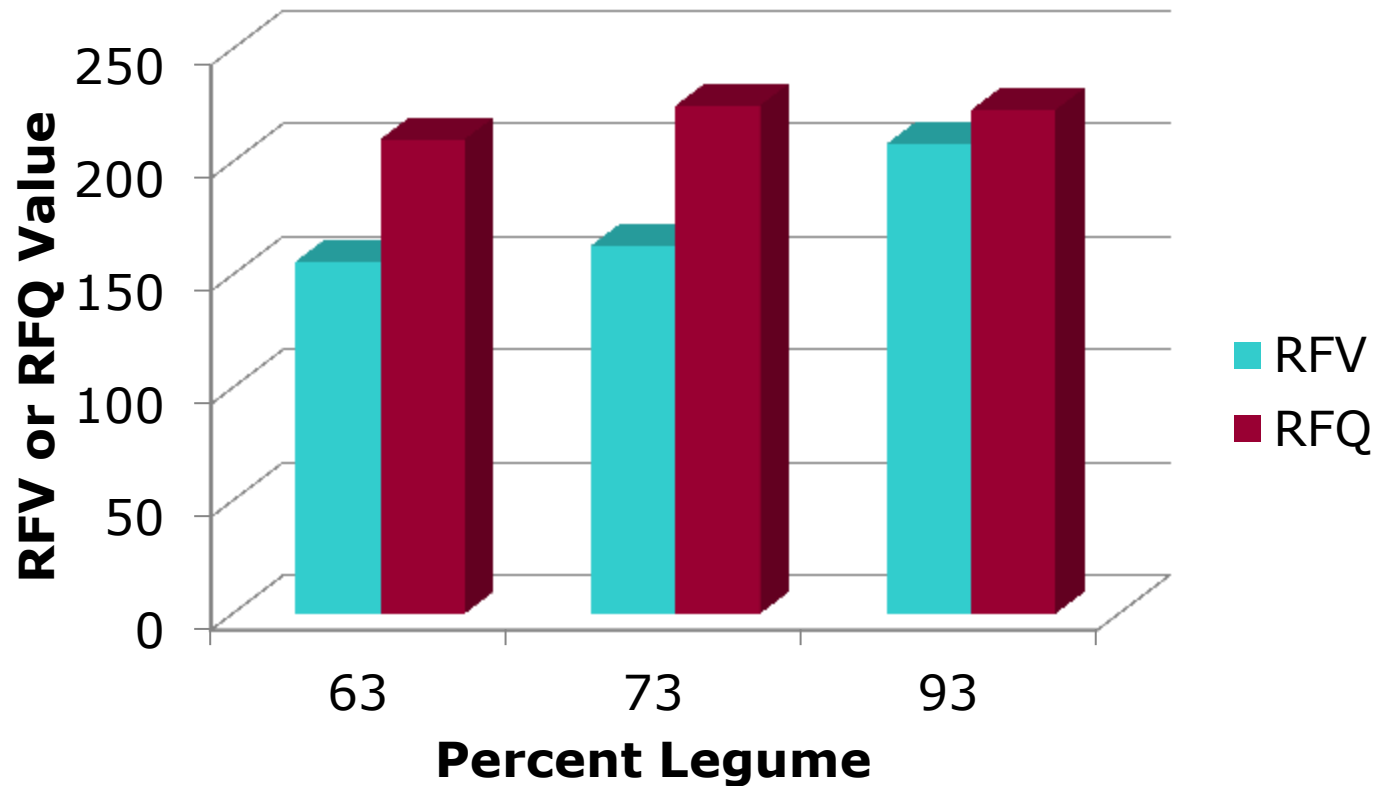
Forage Quality of Alfalfa Grass Mixes



Higher NDF with
grass

But higher NDFD

Forage Quality of Alfalfa Grass Mixes



What grass should I use?

Selection Criteria

Yield

Winterhardiness

Late maturity

Seasonal yield distribution

Rust resistance



Selecting a Good Grass Variety



Mixed with
Alfalfa

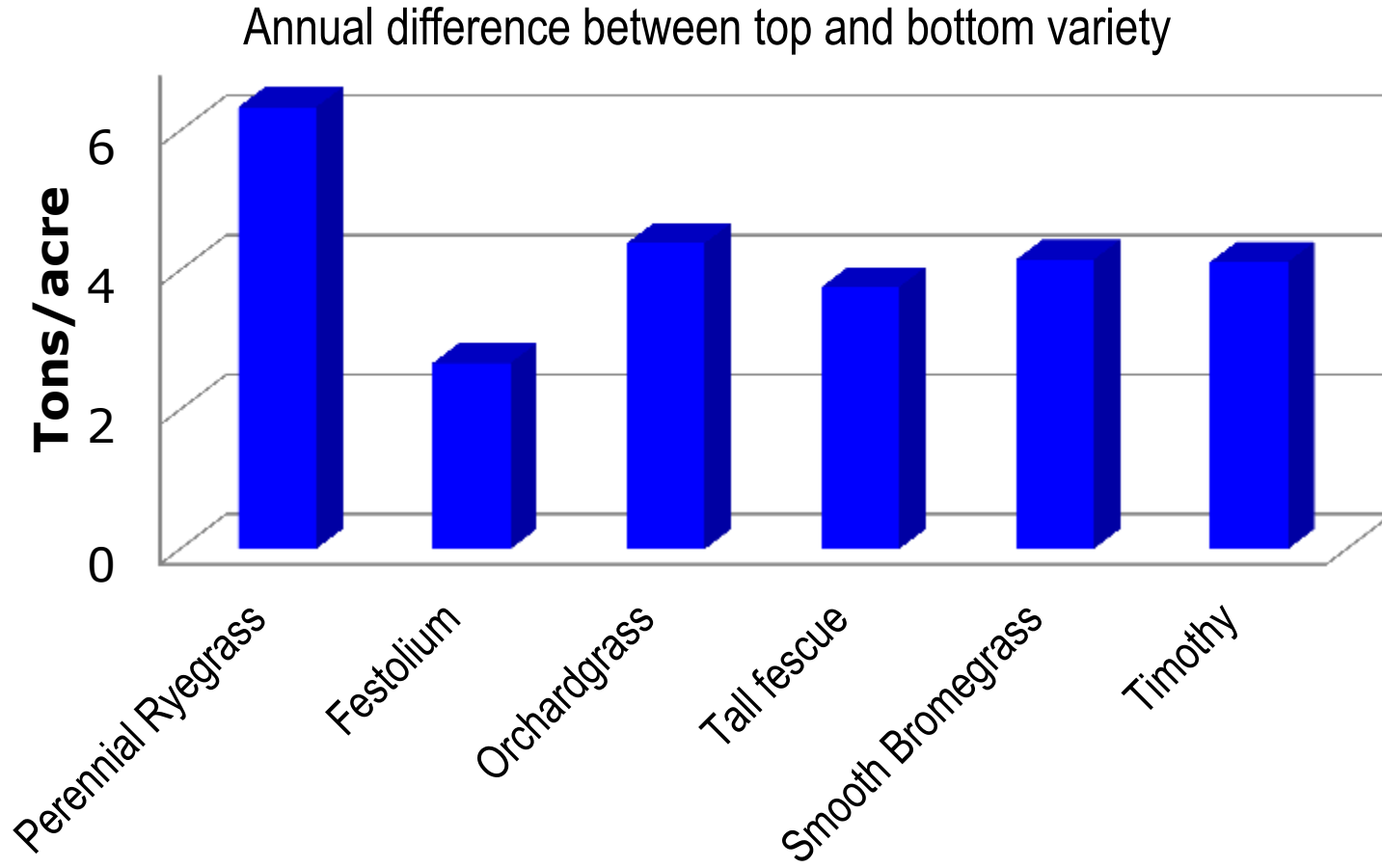
Less NFC than corn
silage or alfalfa

In Pastures



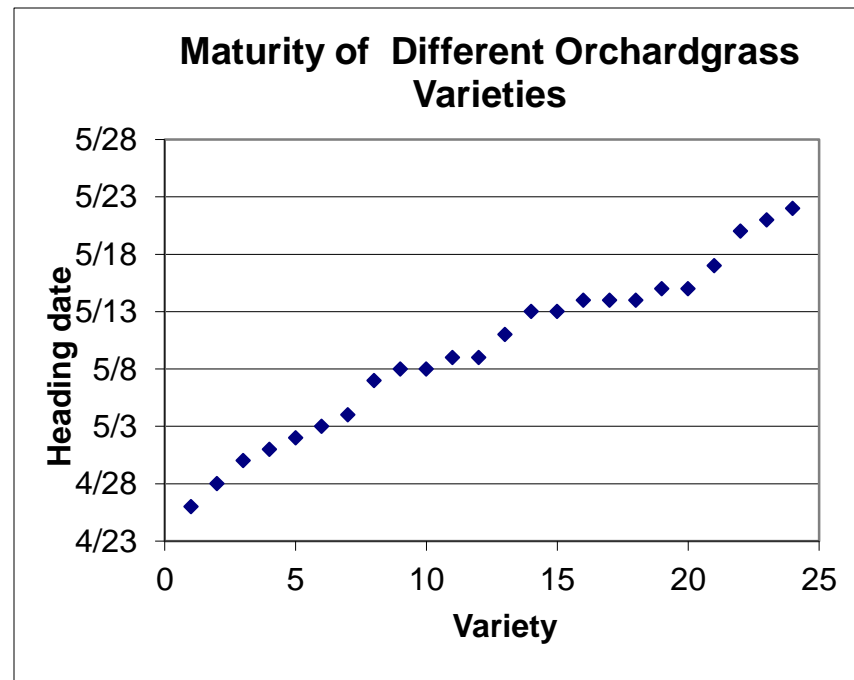
Greater differences exist among grass
varieties than among corn hybrids and
soybean varieties

Selecting Grass varieties - Yield difference among varieties in UW Trials

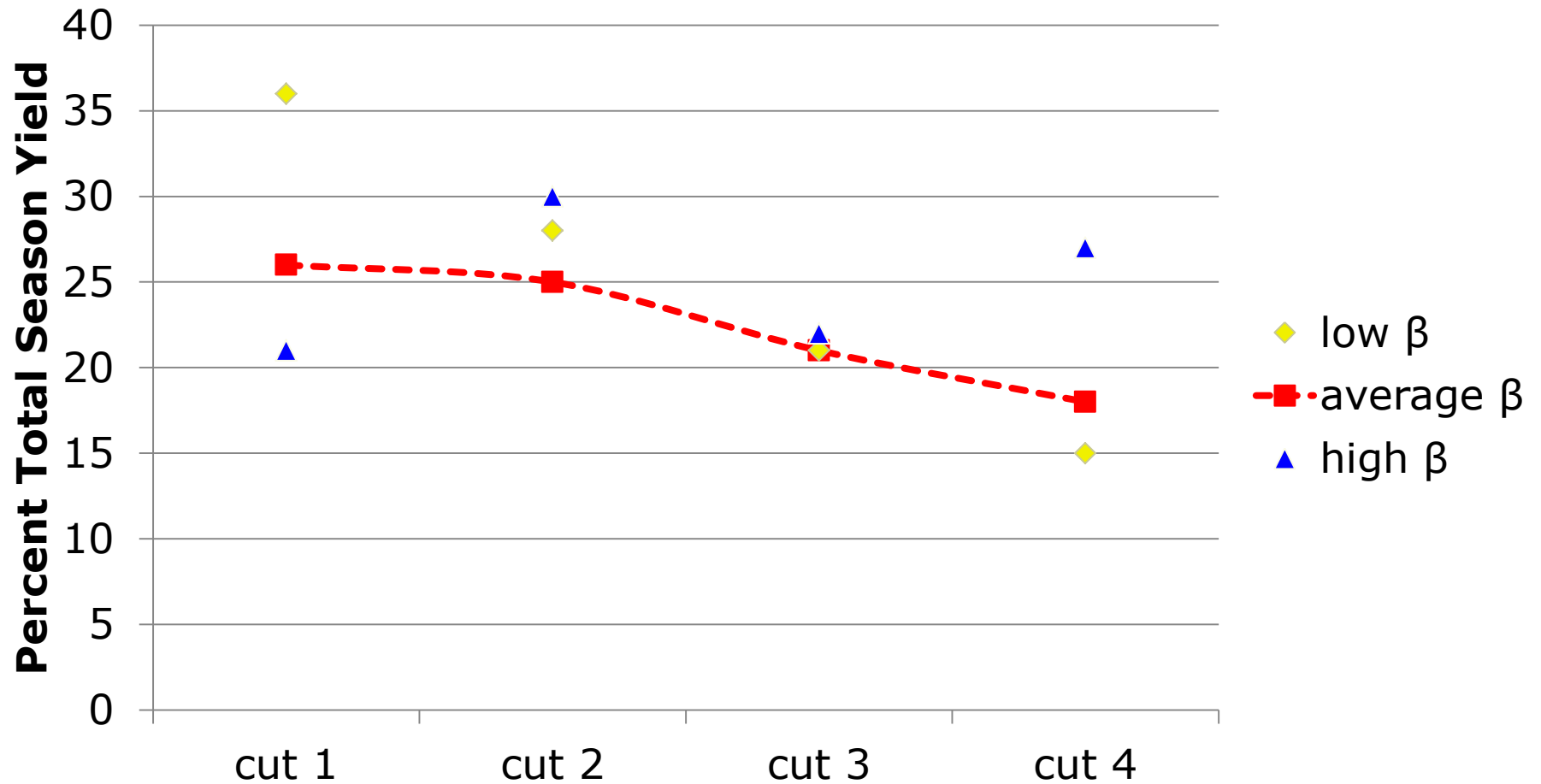


Selecting Grasses

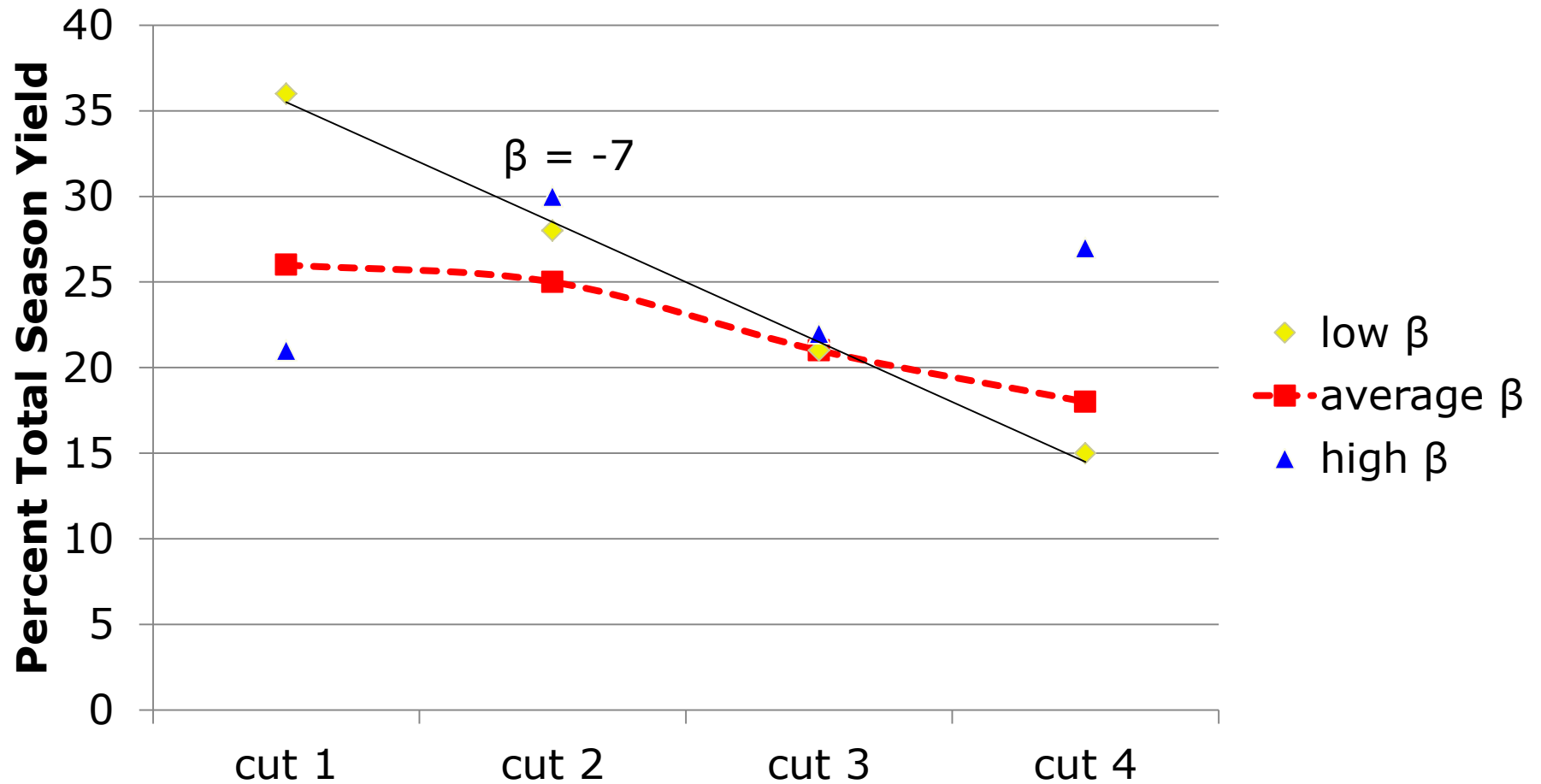
- Orchardgrass and tall fescue
 - Want late maturing types



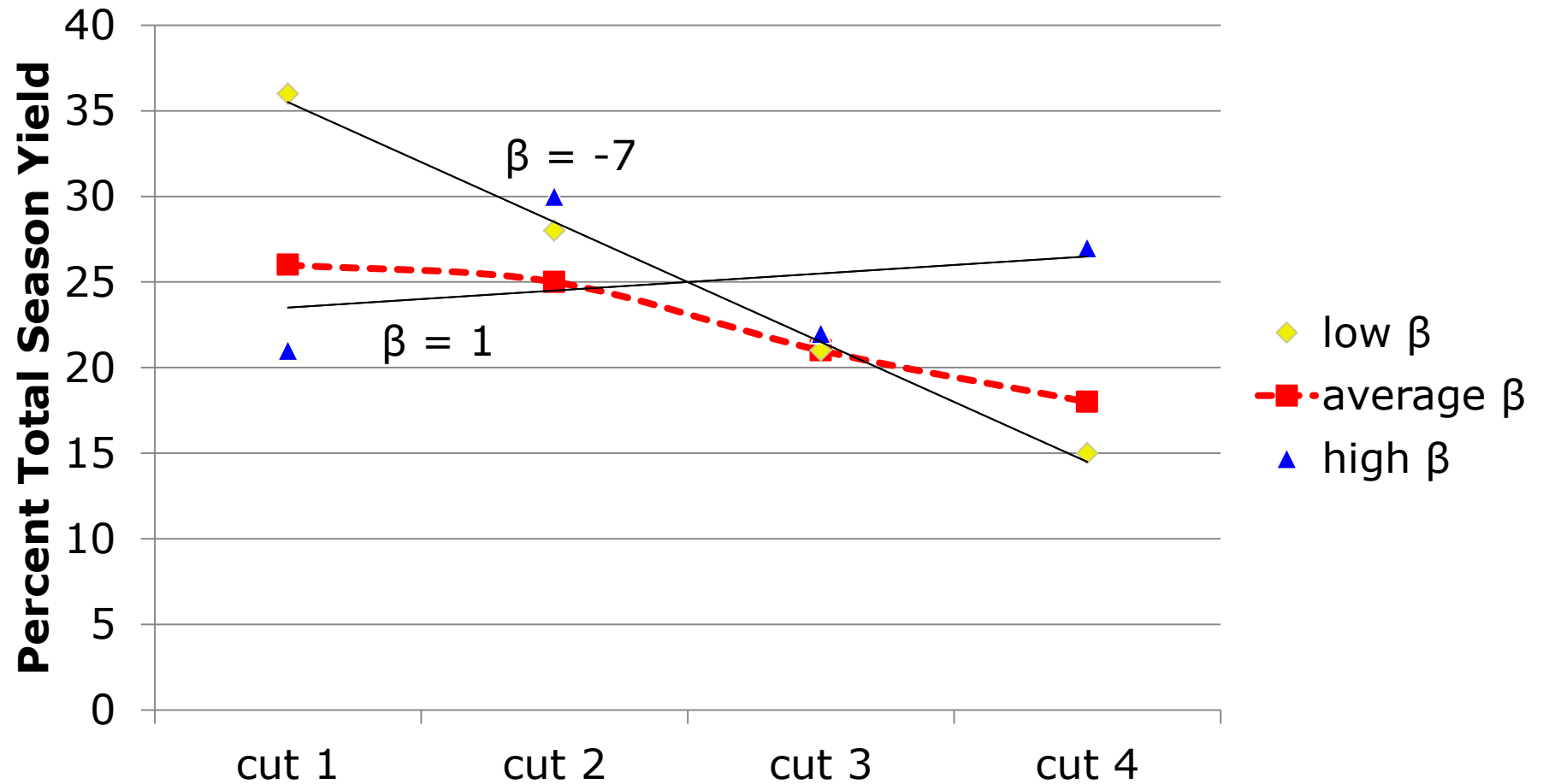
Seasonal variation in Tall Fescue variety yield



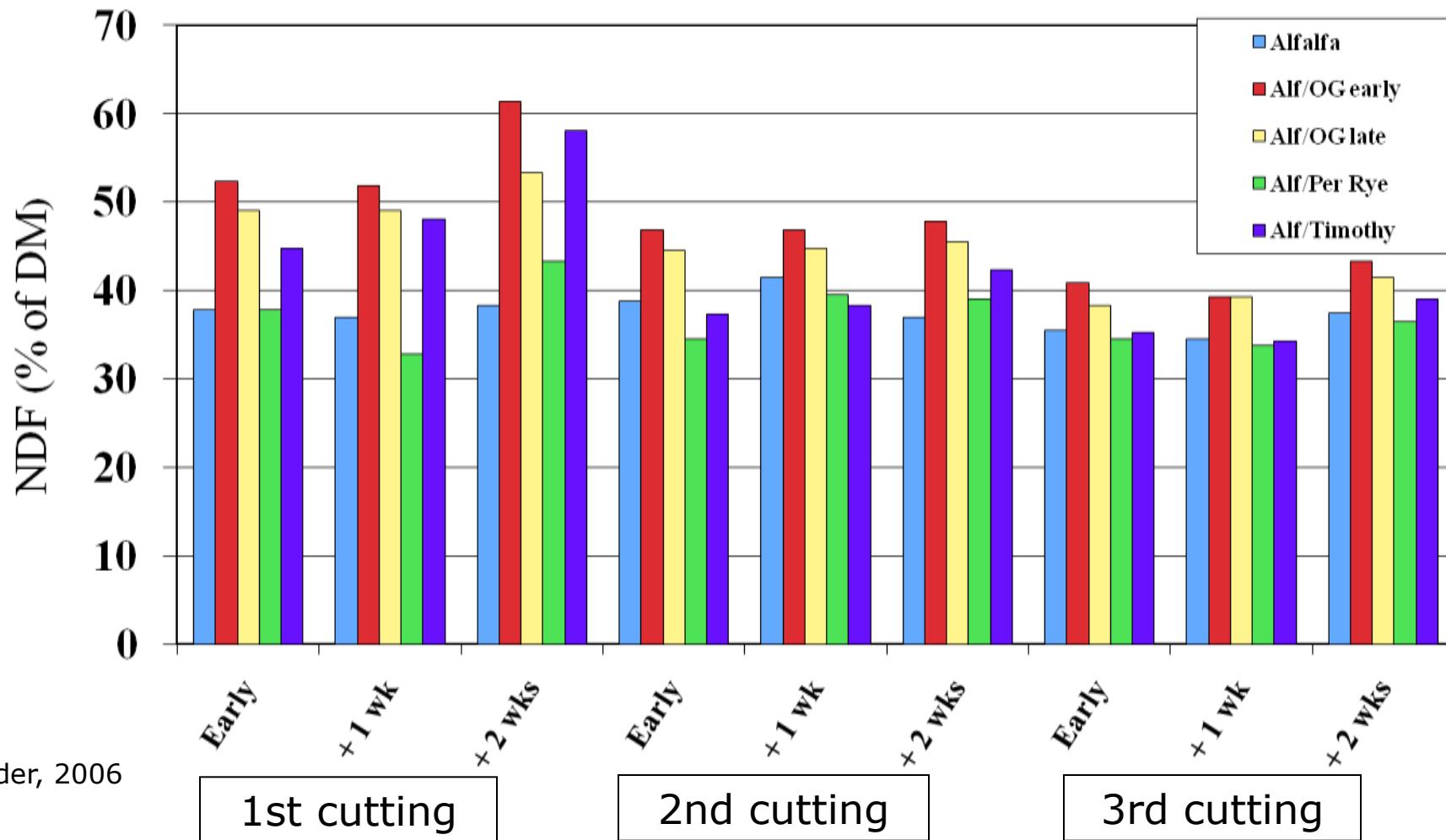
Seasonal variation in Tall Fescue variety yield



Seasonal variation in Tall Fescue variety yield



Quality changes in Alfalfa-Grass mixtures with Maturity - Marshfield NDF

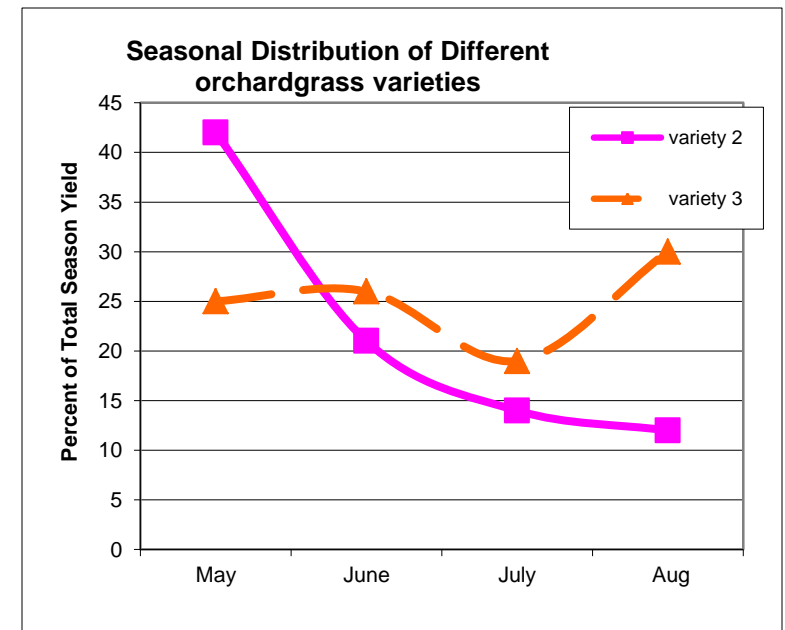


Undersander, 2006

Selecting Grasses

Orchardgrass, Tall Fescue, and Meadow Fescue

- Want winterhardy types
- Want late maturing types
- Want good seasonal distribution of yield
- Want rust resistant types



Rust Resistance



Rust in grass trials



Select Grass Varieties for

- Yield
- Winterhardiness
- Late maturing varieties
- Consistent yield throughout season (β)
- Rust resistance (orchardgrass, tall fescue, ryegrass, festolium)

Why incorporate some grass into dairy rations?

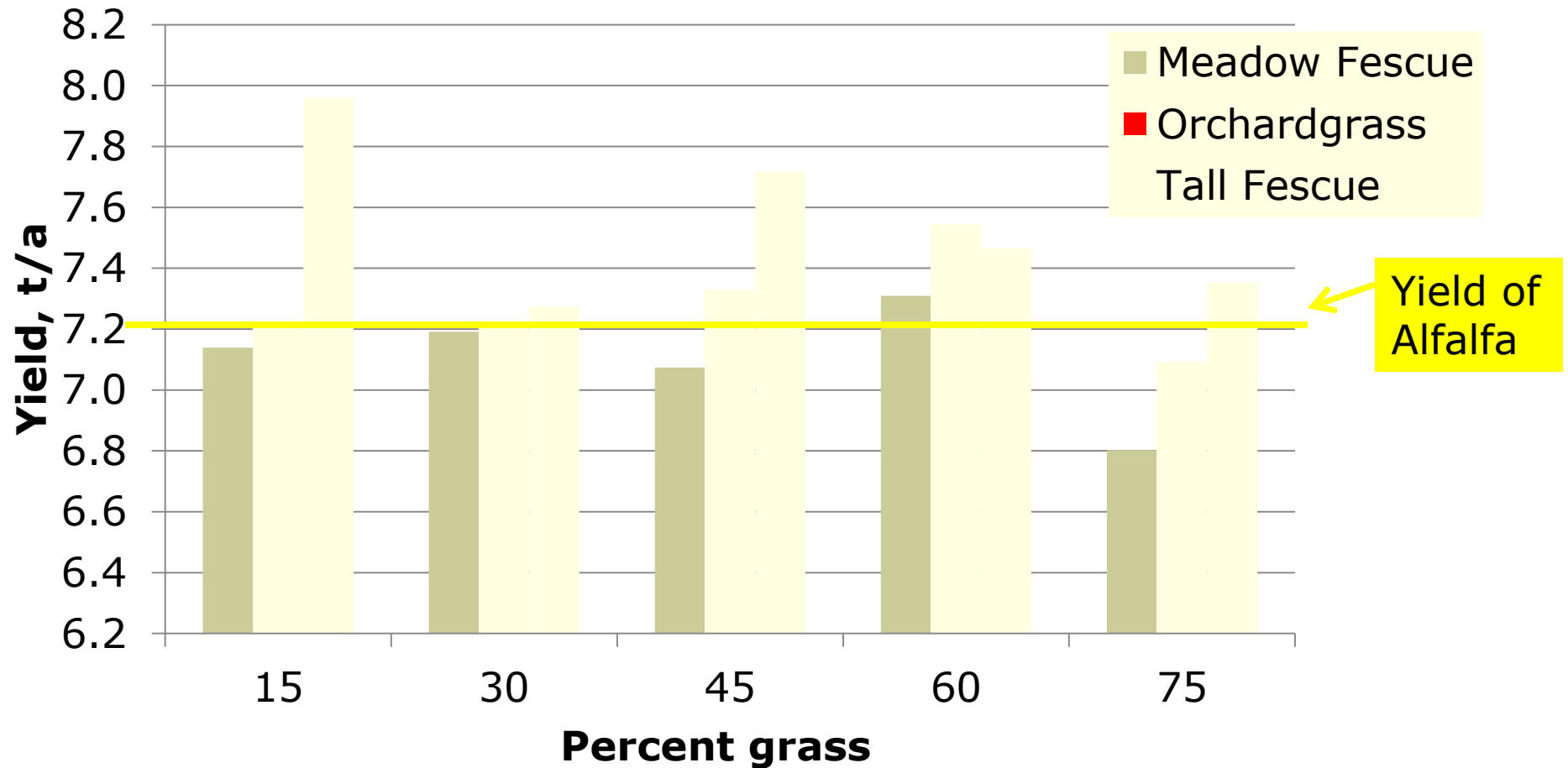
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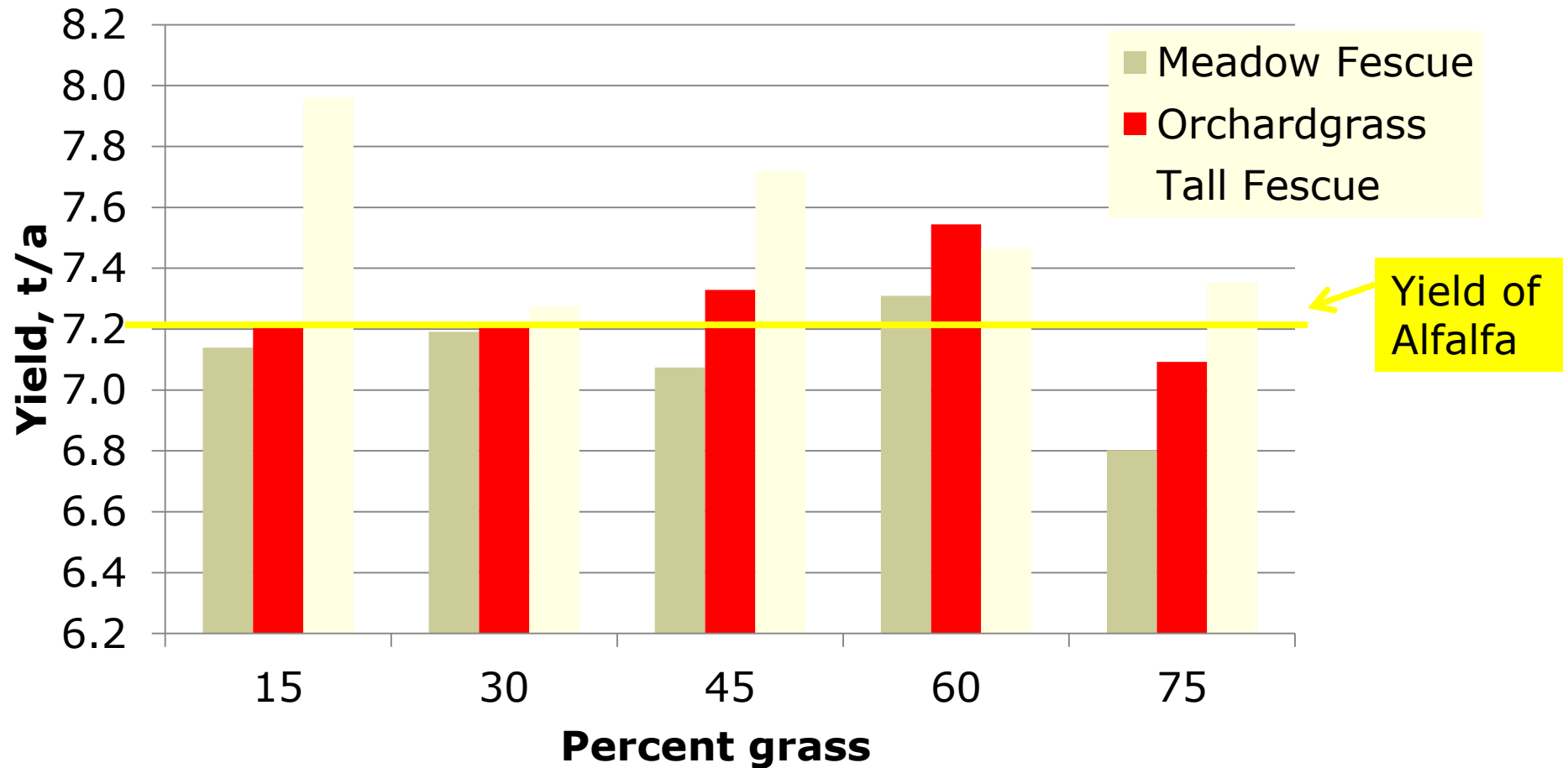
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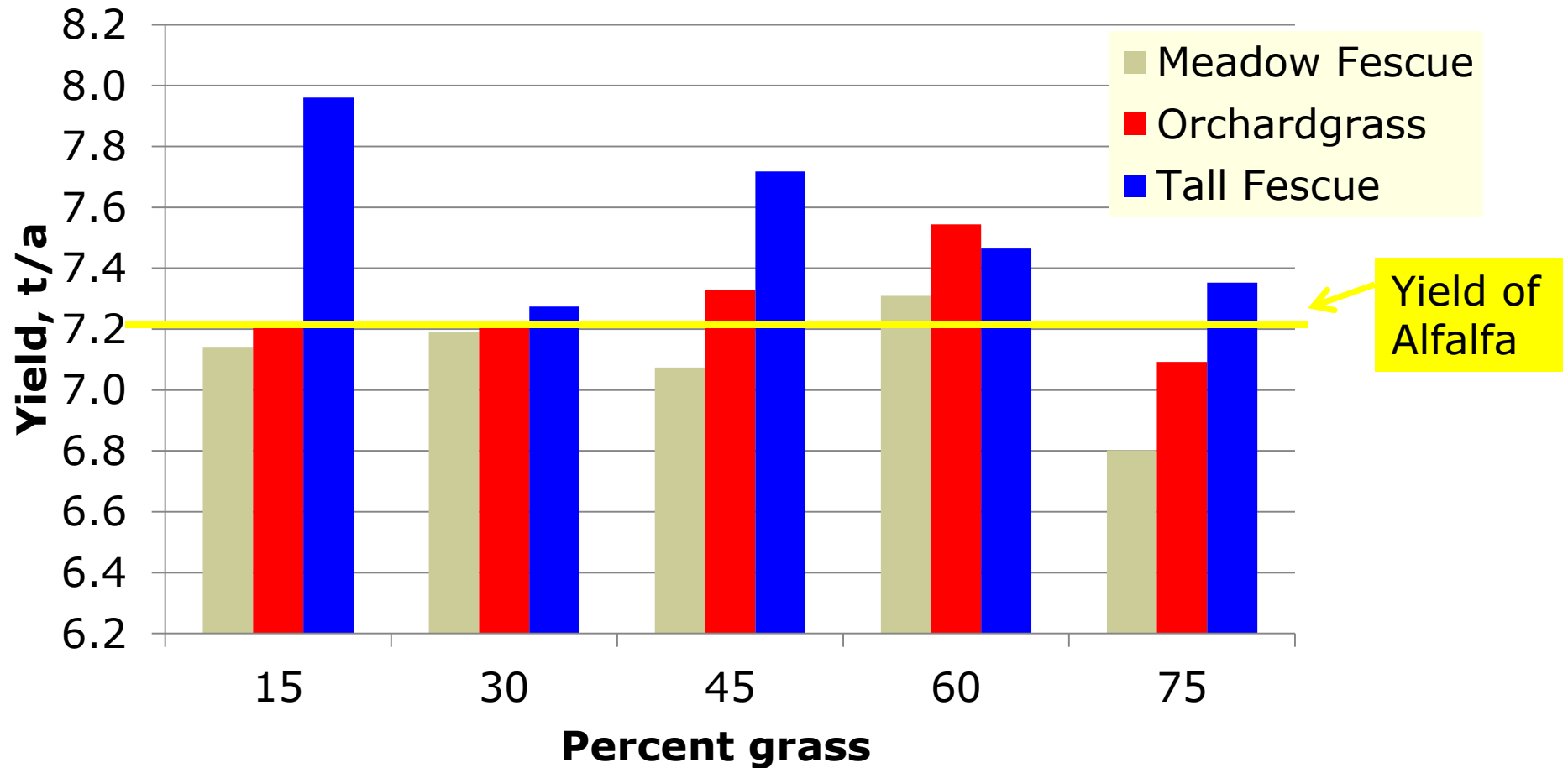
Yield of alfalfa/grass mixtures



Yield of alfalfa/grass mixtures



Yield of alfalfa/grass mixtures



Seeding Alfalfa Grass mixtures

– want 30 to 40% grass (as % of DM)

- Alfalfa - orchardgrass
 - 10 lbs/a alfalfa; 4 lb/a orchardgrass

47 alfalfa
18 orchardgrass
65 seeds/sq ft
- Alfalfa – tall fescue
 - 10 lbs/a alfalfa; 6 lbs/a tall fescue

47 alfalfa
23 tall fescue
70 seeds/sq ft
- Alfalfa – meadow fescue
 - 10 lbs/a alfalfa; 6 lbs/a meadow Fescue

47 alfalfa
27 meadow fescue
74 seeds/sq ft

Alfalfa grass mixes



Web Resources

UW Extension A1525

UW Extension Forage Resources

www.uwex.edu/ces/forage

