Reducing Leaf Loss during Alfalfa Harvest

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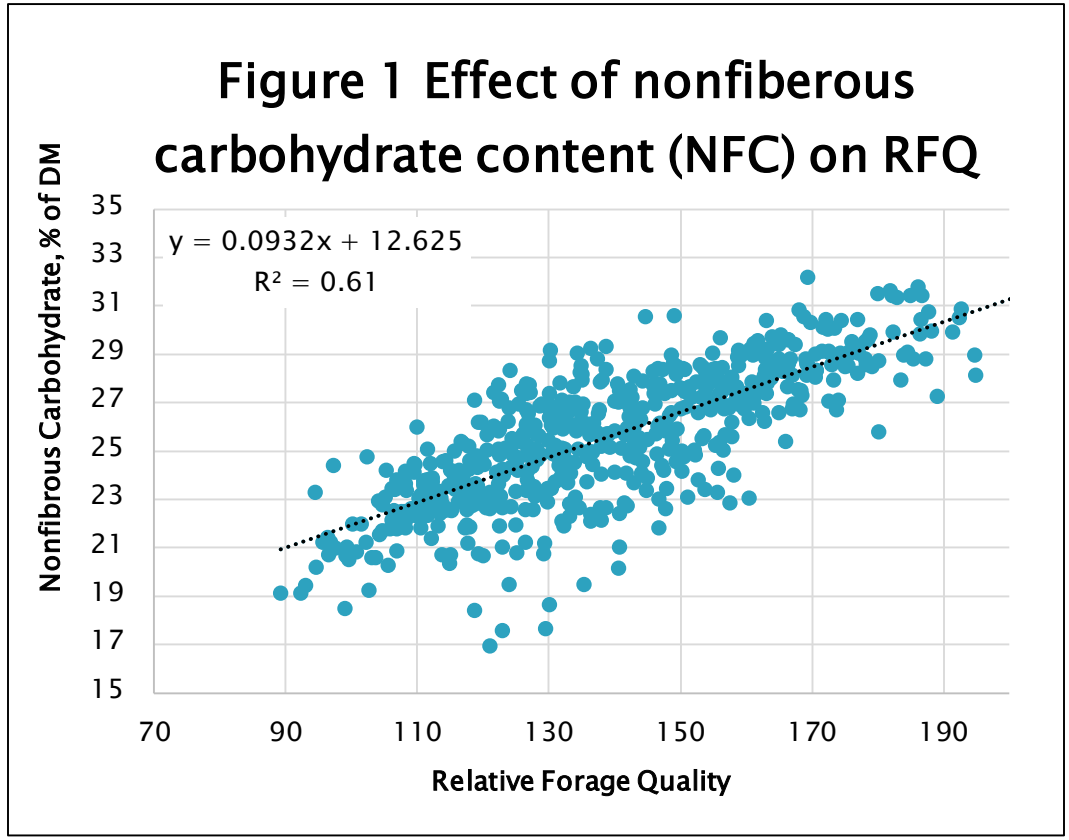
Respiratory Losses

- Nonfiberous Carbohydrate (NFC) is starch and sugars



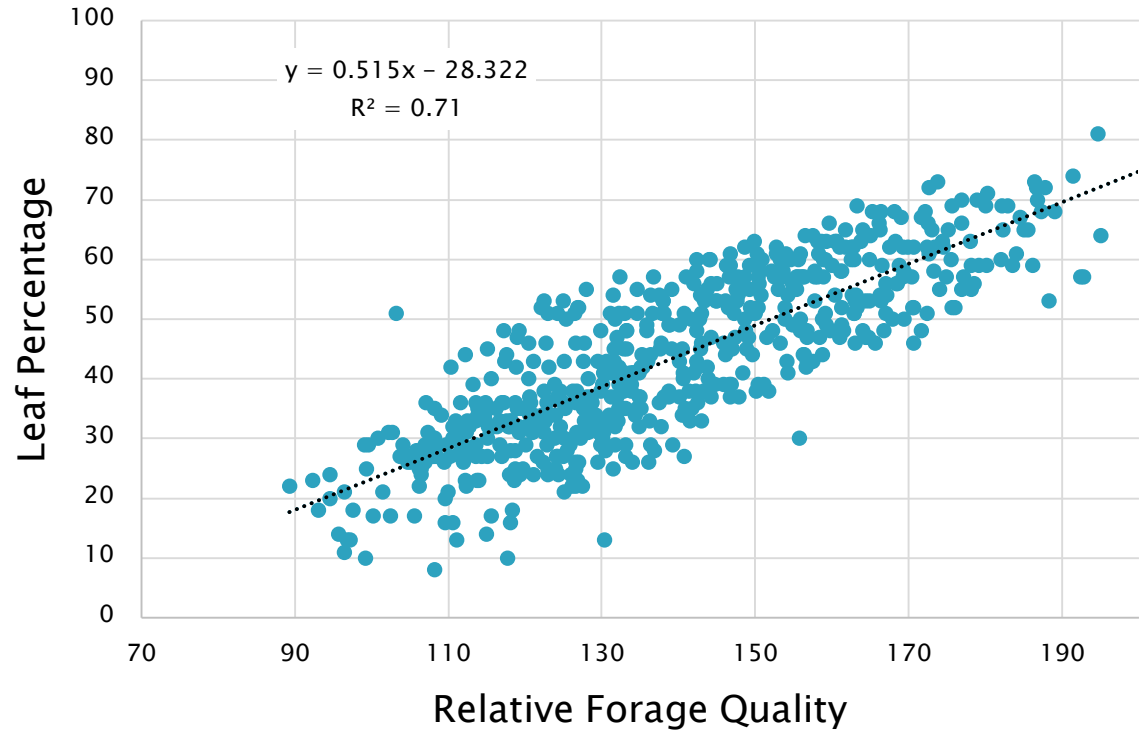
Leaf Losses

- Leaves higher in quality than stems

Leaves 15 to 20% NDF

Stems 60 to 70% NDF

Figure 2 Effect of leaf percentage on RFQ



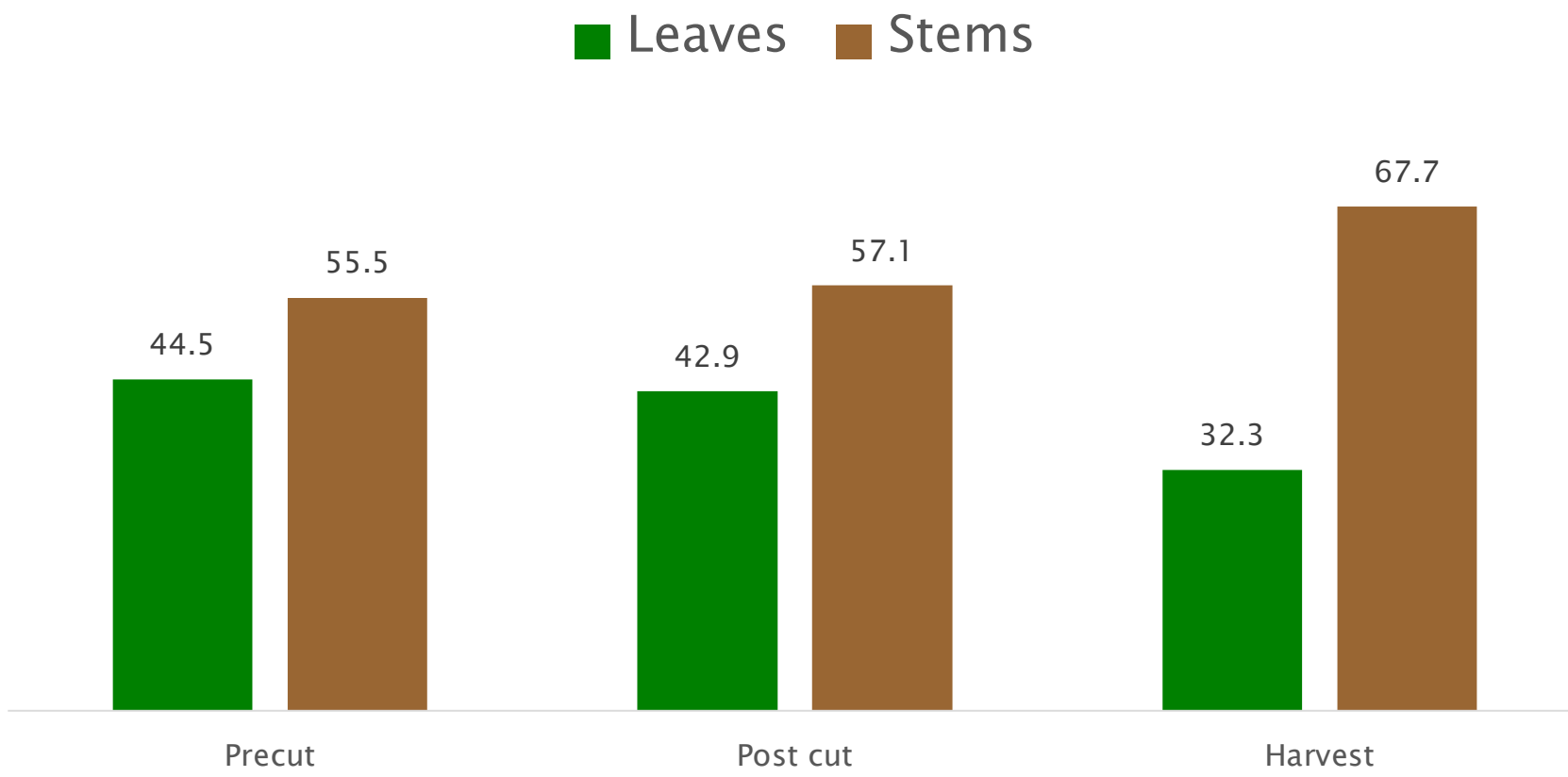
Leaves

- Relative Feed Value (RFV) 480
- Relative Forage Quality (RFQ) 551

Stems

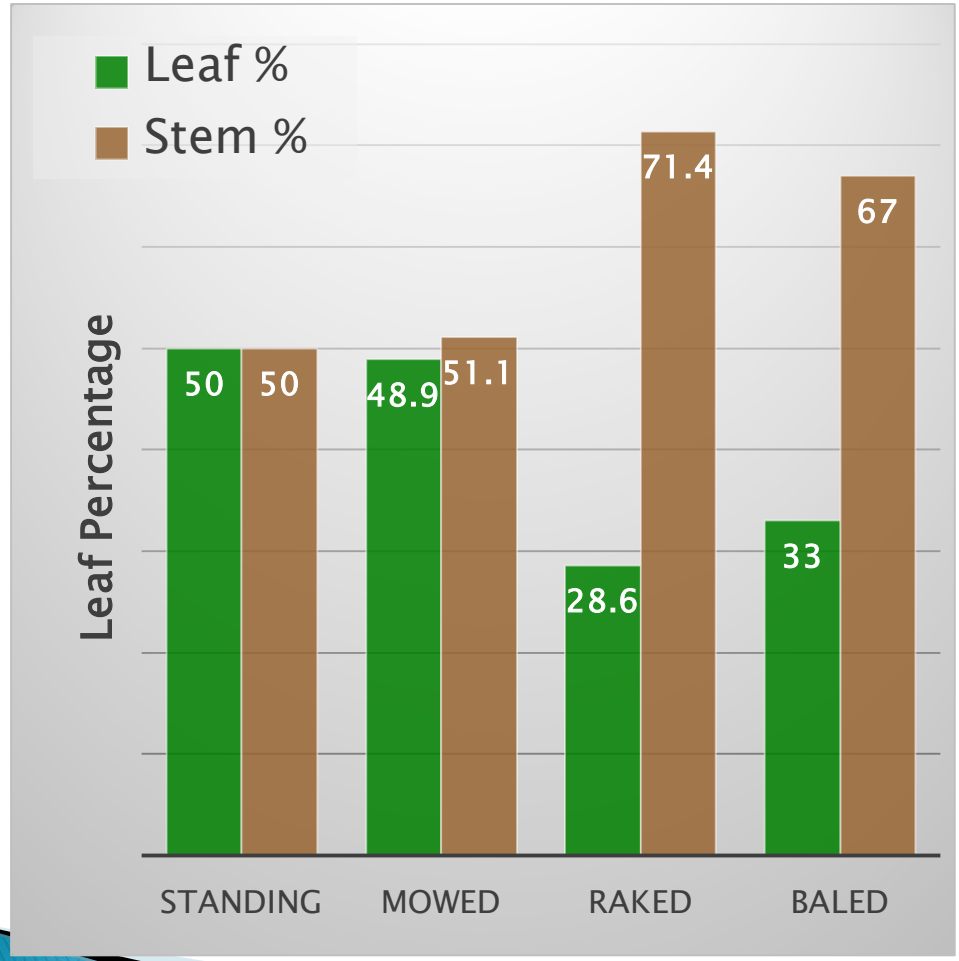
- Relative Feed Value (RFV) 80-100
- Relative Forage Quality (RFQ) 70-80

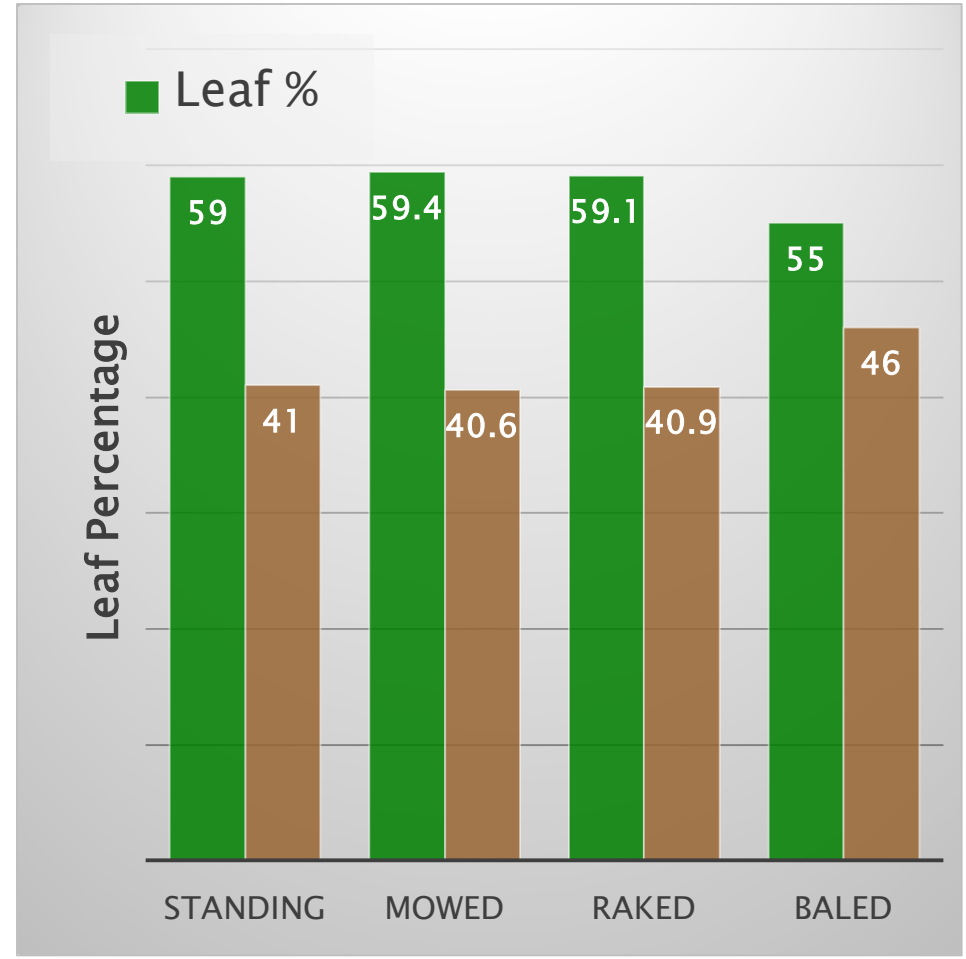
Leaf Content at Harvesting Stages



Data from Winfield, 2016

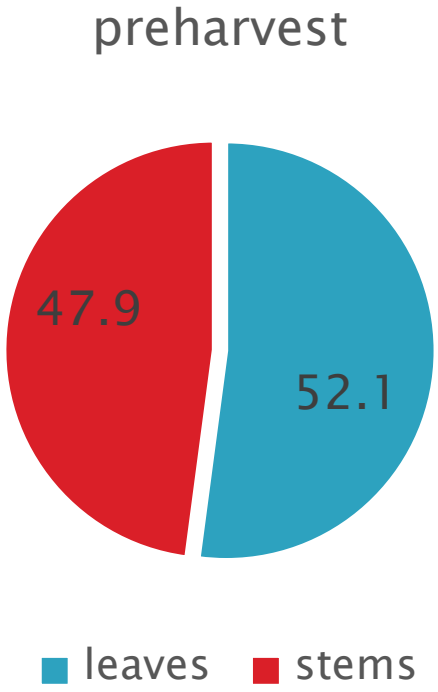
Three-state rake/merger trial, 2015

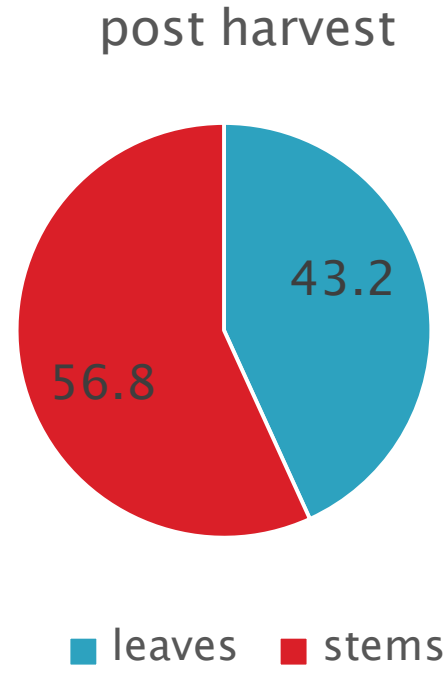


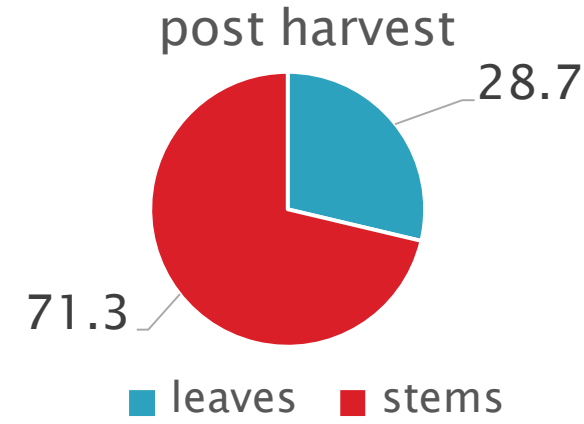


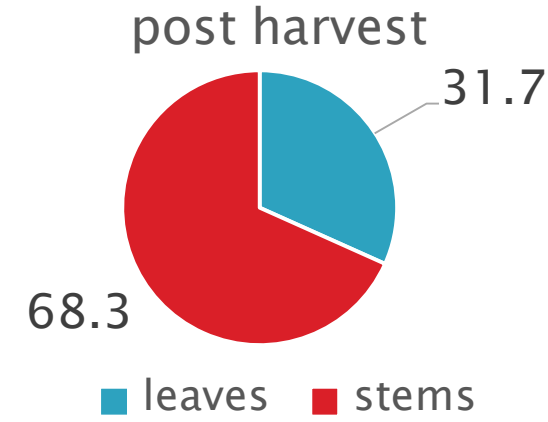
2017 leaf loss measurements

Average of 30 measurements across 1st, 2nd and 3rd harvests





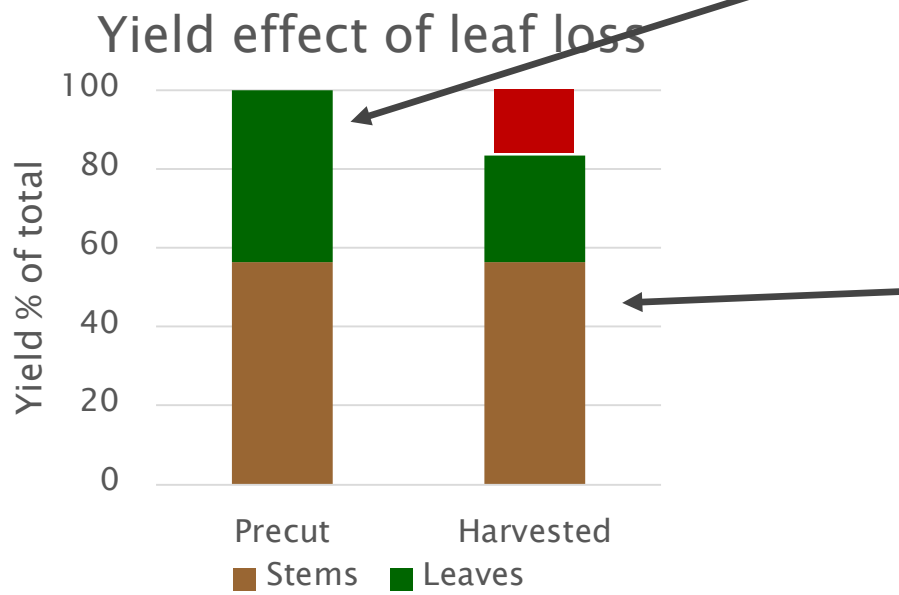


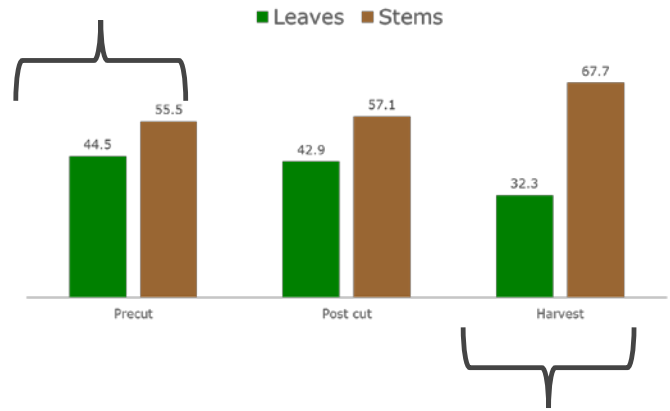


Data from Winfield intern program

Retaining leaves increases yield

- Reduced leaf loss
  - 5 to 20% yield reduction





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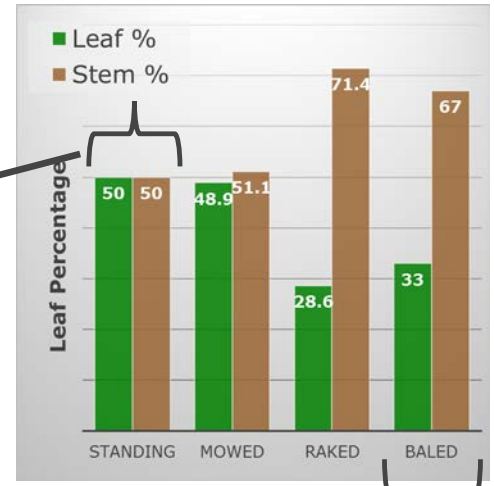
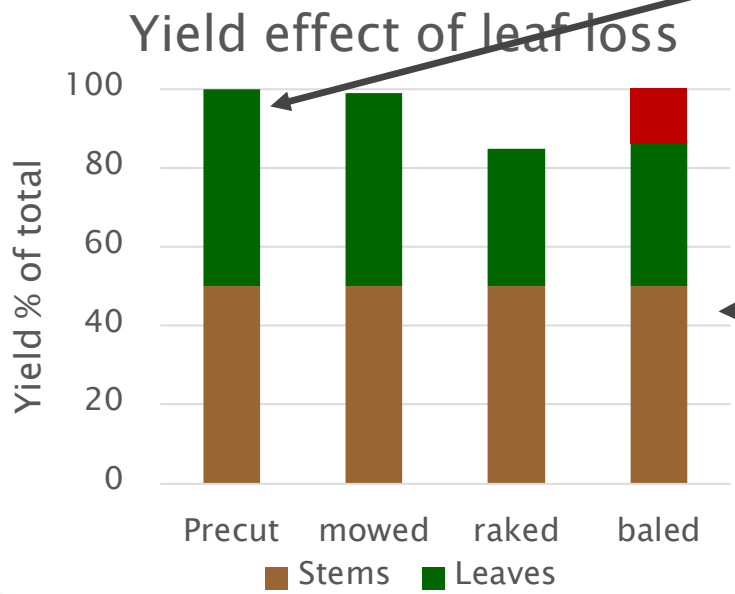




Reducing leaf losses during harvesting

- Leaf loss
  - Disease on standing crop

Leaves on ground prior to mowing

~~Tedding~~, Raking, Merging

Tedding, Raking, Merging

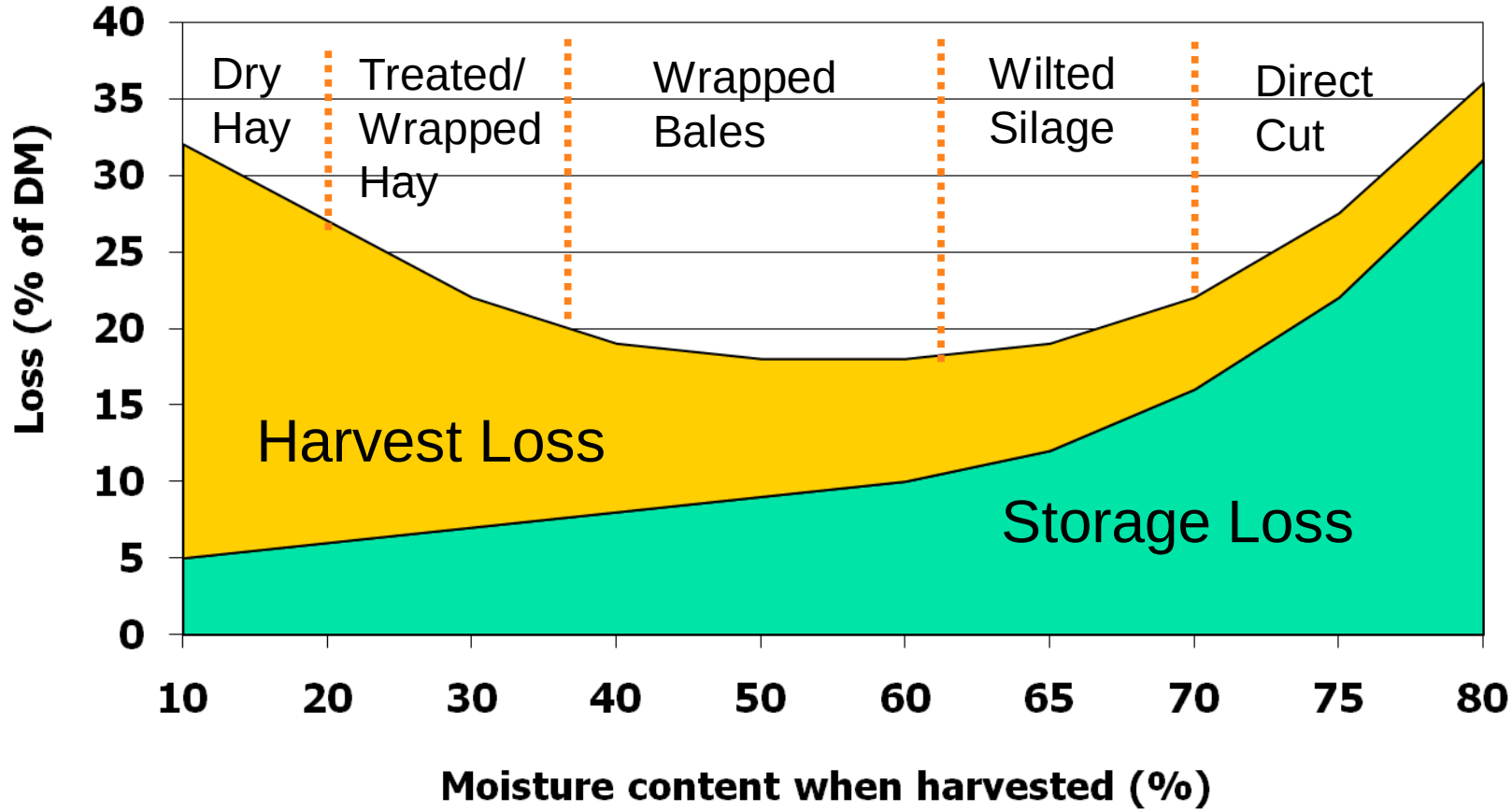
Rake/merge when >50 % moisture

Leaf loss

Machine adjustments and operating speed have largest effect

Windrow surface dries faster than interior

Dry Matter Losses when Forage is Harvested at Varying Moisture Contents



Harvest wetter to minimize field/leaf loss

Leaf Loss during harvesting

Leaf Loss during harvesting

Leaf loss between belts of round baler

Minimizing leaf loss

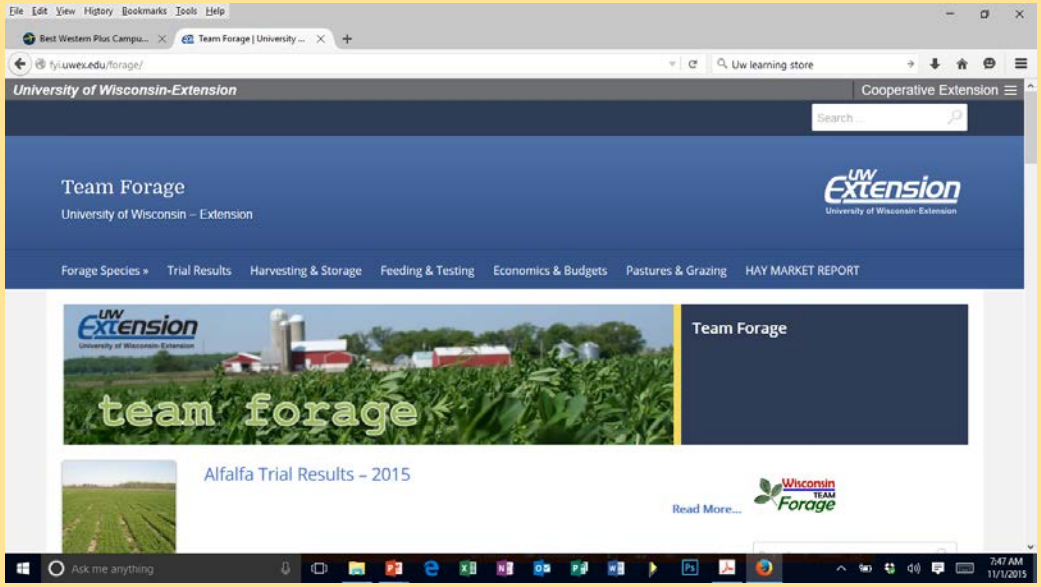
1. Harvest with dew on windrow
2. Add moisture to windrow

Make baleage

- ✓Preserves by excluding oxygen
- ✓Need at least 6 wraps

For Additional Information

fyi.uwex.edu/forage



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