

Using winter hardy small cereals for grazing and silage

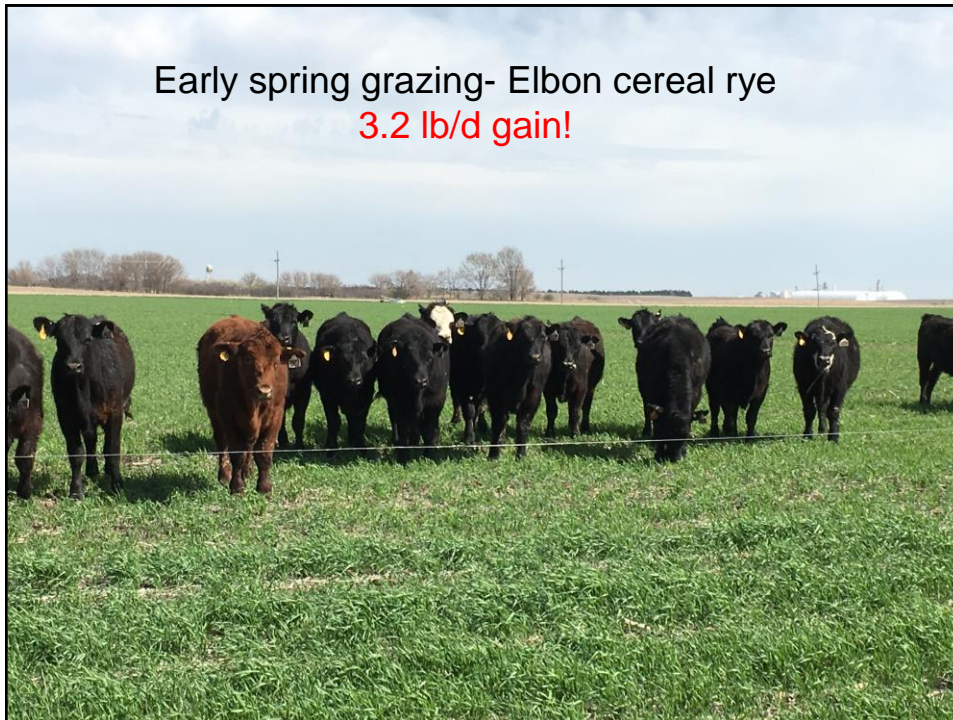
Mary Drewnoski, Beef Systems Specialist, UNL
@cattlenerd



Fall planting

Winter hardy
Cereal rye
Winter wheat
Triticale





Performance of 700 lb steers grazing in early spring

	ADG, lb/d	Grazing days	Gain lb/acre
Rye	3.9	29	338
Triticale	4.1	29	352
Wheat	4.1	29	356
P-value	0.87	1	0.78



Performance of 700 lb steers grazing in early spring

	ADG, lb/d	Gain lb/ac	Hd days per ac
RYE	3.0 a	116 a	39
TRIT	1.4 b	54 b	39
Wheat	1.8 ab	70 ab	39
Trt P-value	0.05	0.05	–



Effect of Species and Maturity on Winter Hardy Small Cereal Grain Silage

What should I plant?
When is the best time to harvest?



Abigail Sartin, Kallie Calus, Morgan Grabau, Alyssa Kuhn, Daren Redfearn and Mary Drewnoski



Boot stage



Mid to late May



Pollination



Early June



Milk



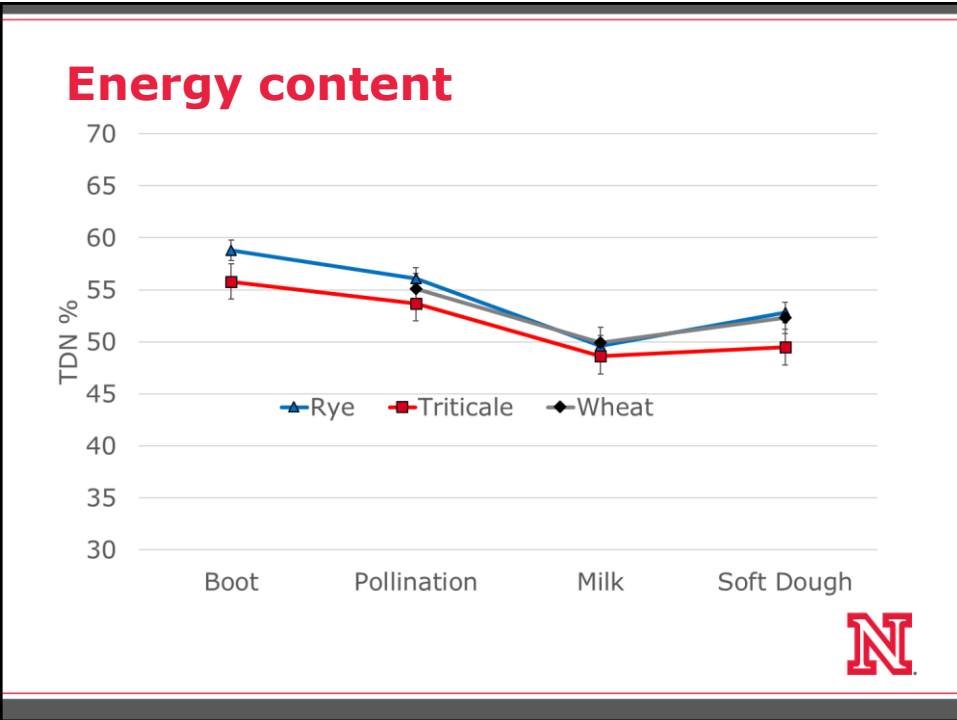
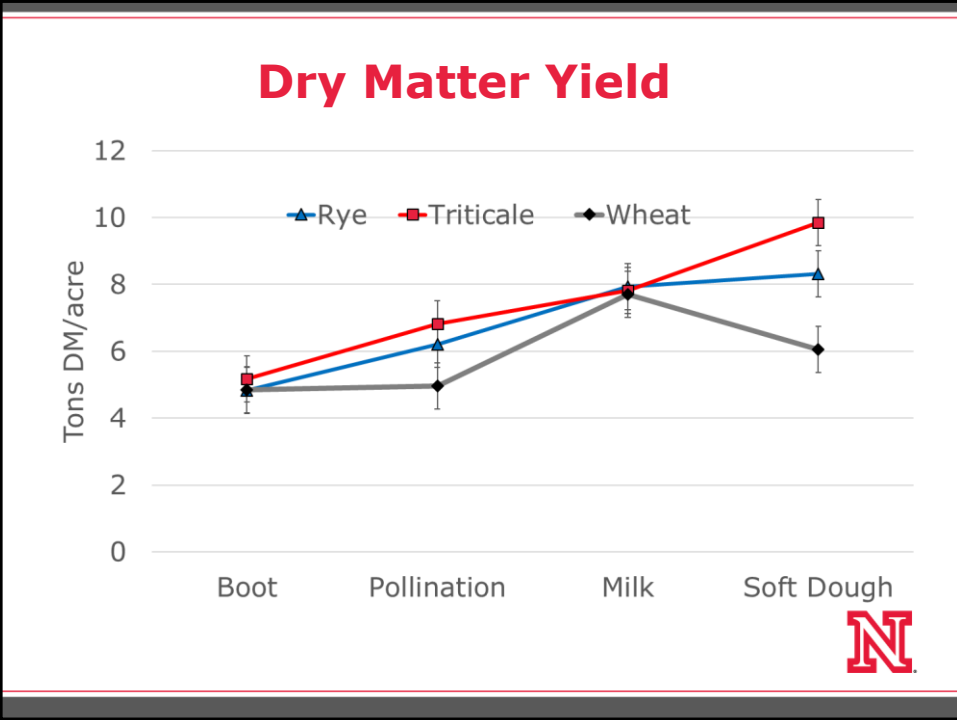
Early June

Soft Dough

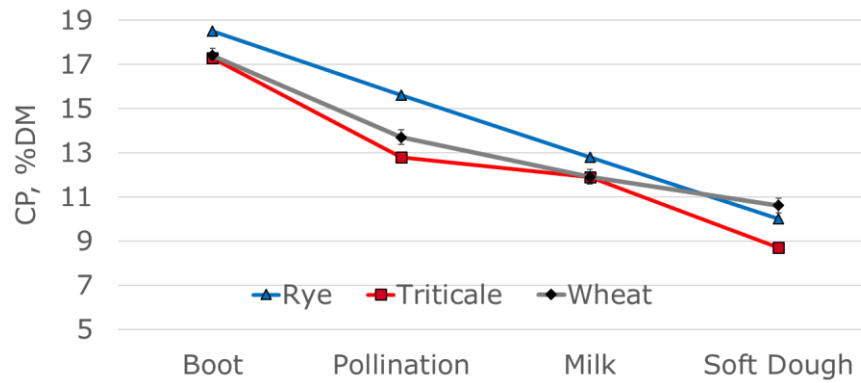


Mid-late June





Crude Protein Content



Timing

	Year 1		
	Rye	Wheat	Triticale
Boot	5/18	5/23	5/18
Pollination	6/1		5/29
Milk	6/9	6/8	6/9
Soft Dough	6/22	6/16	6/22

	Year 2		
	Rye	Wheat	Triticale
Boot	5/5	5/13	5/11
Pollination	5/12	5/24	5/24
Milk	6/11	6/7	6/8
Soft Dough	6/15	6/14	6/21

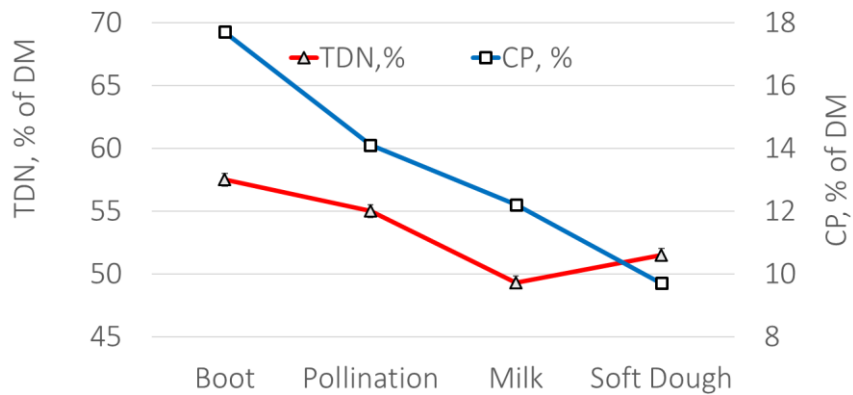


Conclusion -Species

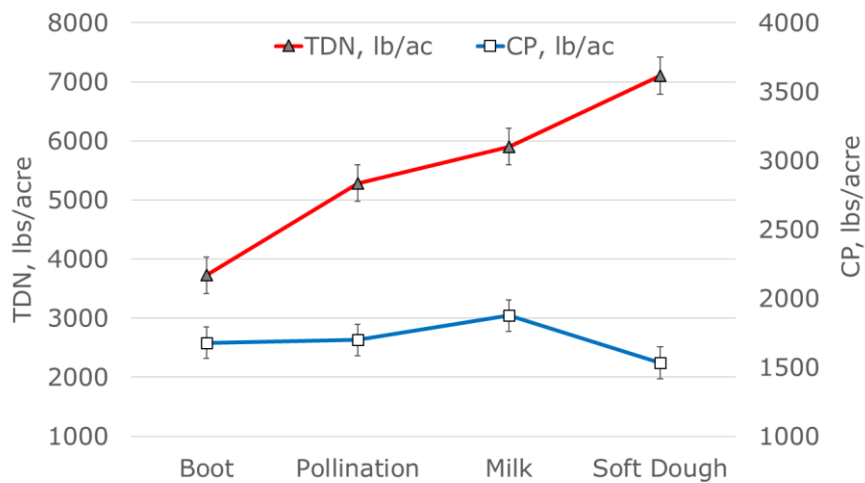
- Planting rye or triticale will result in the best nutrient yield per acre



Nutrient content of small grain silage



Nutrient Yield of small grain silage



Conclusions- Harvest

- For higher quality forage, harvest at pollination has increased yield without sacrificing much nutritive value
- For maximized TDN yield, harvesting at soft dough is a better option



Moisture content in field

- Target 65 to 70% moisture (30 to 35% DM)

	Moisture content, %		
	Rye	Triticale	Wheat
Boot	80.9	83.5	83.8
Pollination	78.5	77.9	80.3
Milk	71.0	72.3	73.2
Soft Dough	60.9	64.2	56.8

In most cases wilting is necessary!



Survey of small cereal silage management of Nebraska producers

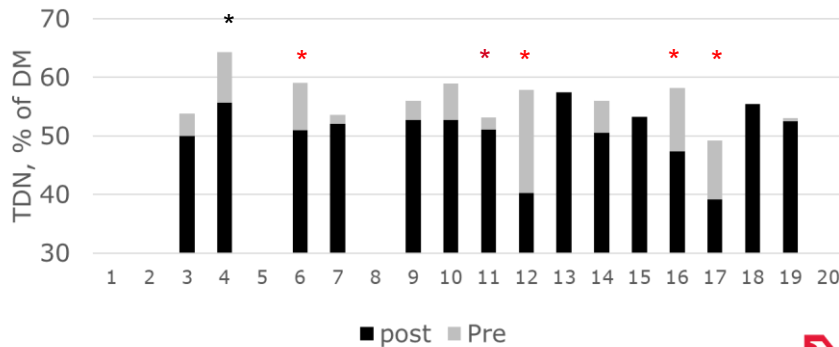
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Ben Beckman, Brad Schick,
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Dry Matter at Harvest

- 40% of samples were too wet at harvest
 - Needed longer wilting period



Inoculants

- **Homofermentative** inoculants almost exclusively produce lactic acid and have been shown to effectively **reduce silage pH and improve DM recovery**.
- **Heterofermentative** inoculants, which contain bacteria capable of producing both lactic and acetic acid, have been shown to **improve silage aerobic stability**.



2022 Silage for Beef Cattle Conference: Focus on Small Grain Silage

- Agronomic management of small grain for silages
- When to harvest small grain silage
- Sorghum silage: A solution for limited water
- Why fermentation analysis means for your operation
- Fundamentals of silage harvest management
- Inoculants for small grain silage
- Economics and ROI on quality forage in grower and finishing rations
- Panel: Making small grain silage work



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UNL-Value of Standing Forage Tool

An Excel spreadsheet for evaluating the value of standing forage in the field.

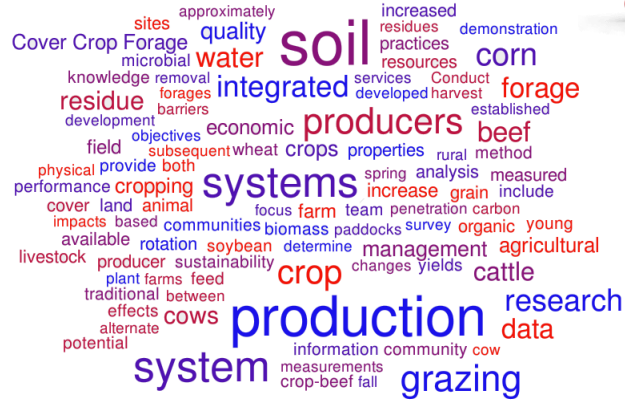
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- <https://farm.unl.edu/forage>



More Questions



Beef.unl.edu/cropland

