

Late Summer-Planted Oats for Forage: A Viable Option for Northern New York?

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Oats as a Late Summer Emergency Forage

- Late summer emergency forage plantings are a common occurrence in NNY due to failed spring seedings, delayed planting due to wet weather, hailstorms, etc. Hot, dry weather can reduce hay and pasture forage yields to problematic levels.
- Late-planted summer annual crops such as sorghum-sudangrass, teff, pearl millet and oats have been suggested as emergency annual forage crops.



NNY Warm-Season Annual Forages

- NNY, 2005 :

	DM, tons / acre
Hybrid Pearl Millet	2.68
Teff	1.79
Buckwheat	1.42
- Late-planted BMR corn: 4 tons DM/acre in ENY study
- BMR Sorghum Sudangrass: potential 3-5 tons DM/acre

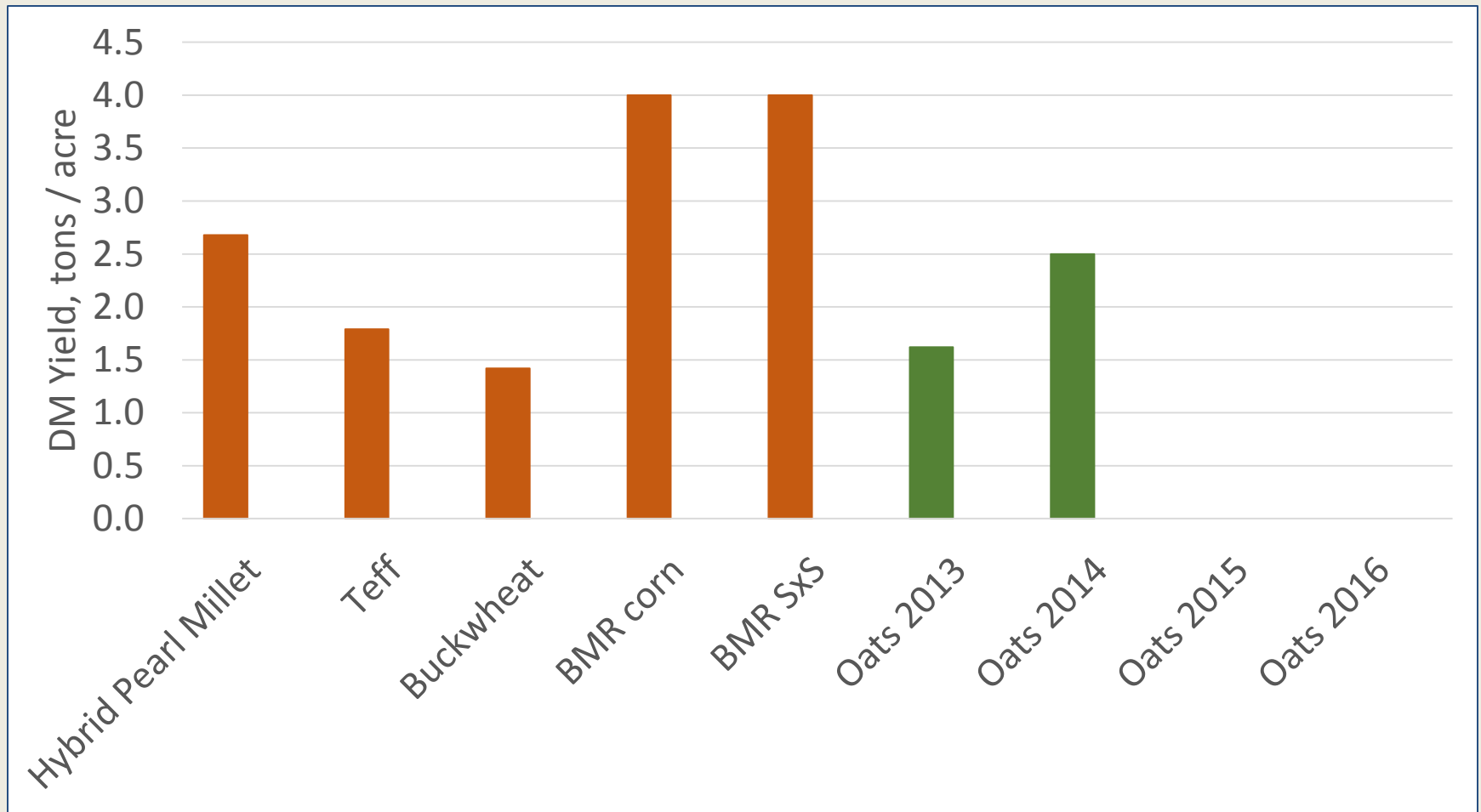


Oats as a Late Summer Emergency Forage

- August 1-planted oats yielded well in preliminary studies at one Jefferson County location. Harvested 50-65 days later at boot stage.
 - 2013
 - 1.62 tons DM / acre
 - No difference between 55 or 110 (2 applications) lbs N
 - 2014
 - Grain and forage oat varieties yielded about 2.5 tons DM / acre with 55 lbs N
- NNYADP funded trials in 2015 & 2016 to study N requirements, yield potential in NNY.



Yield of Late Summer Forages

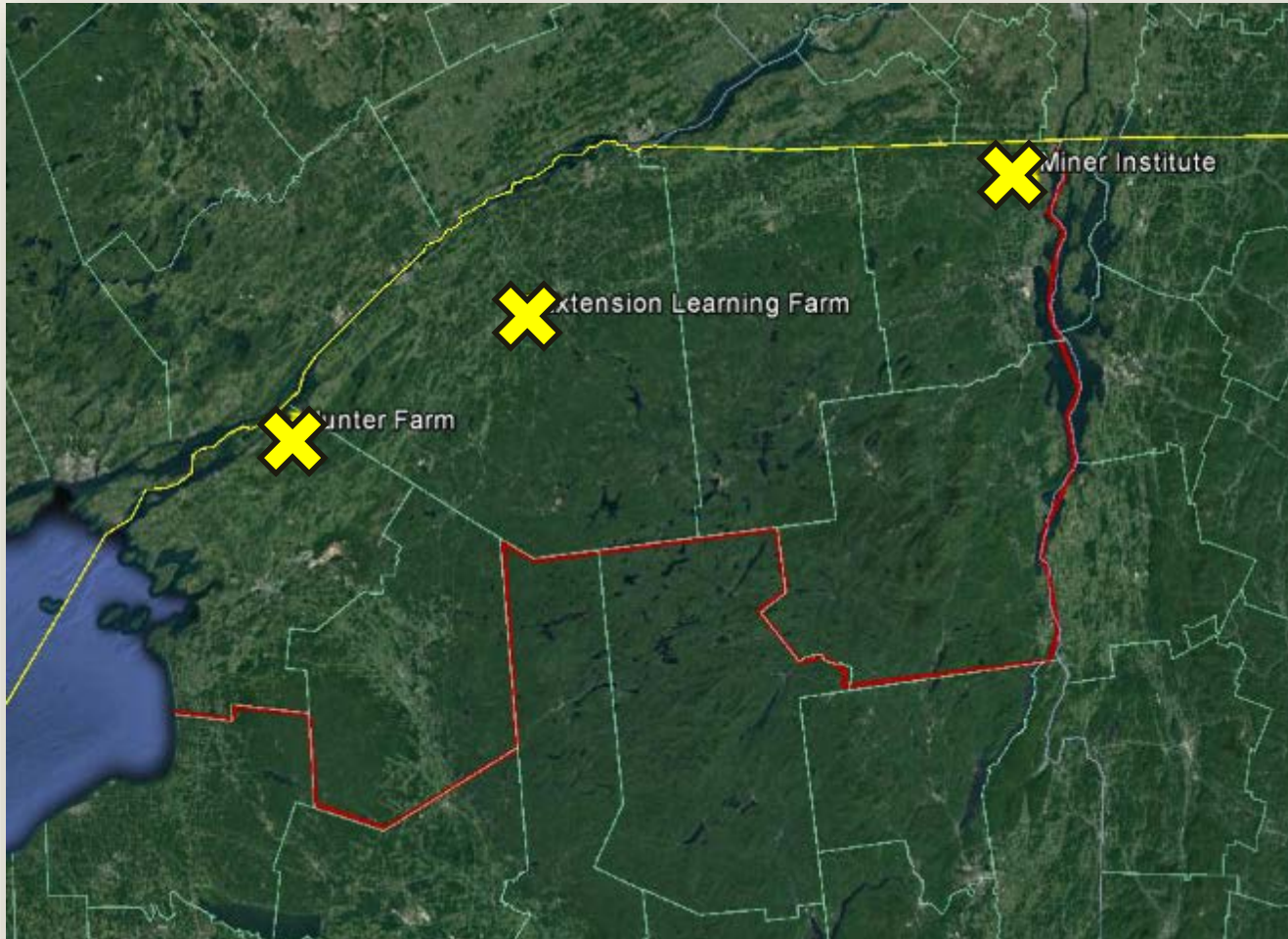


2015 and 2016 Methods

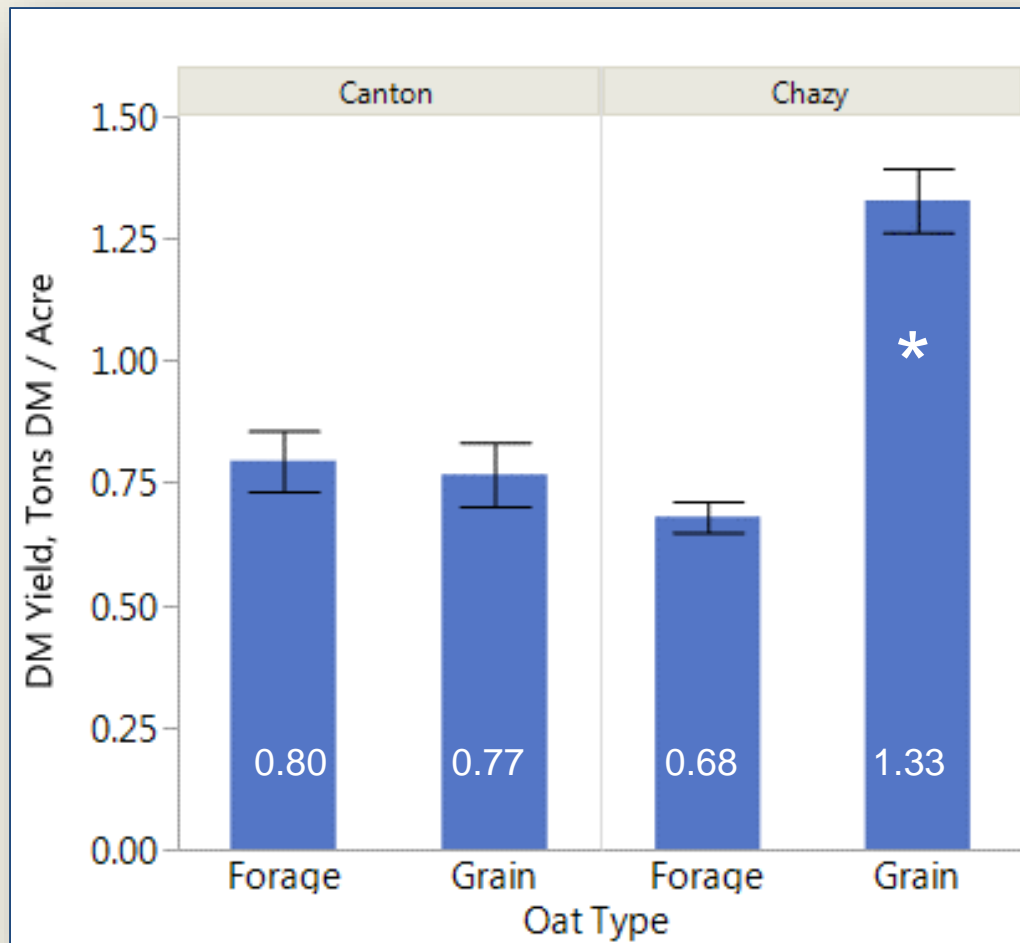
- Grain vs forage varieties of oats
 - “Corral” (Seedway LLC), a medium-maturity grain oat,
 - “Foragemaker 50” (King’s AgriSeeds, Inc.), a later maturing forage oat.
- Oats were seeded July 31 to August 4 at 120 lbs per acre, at a depth of 1” with a grain drill at 7” row spacing.
- 3 Locations, no manure histories
- 4 field replications per trial site
- Harvested October 1 to 10, 55-65 days



Experiment Locations



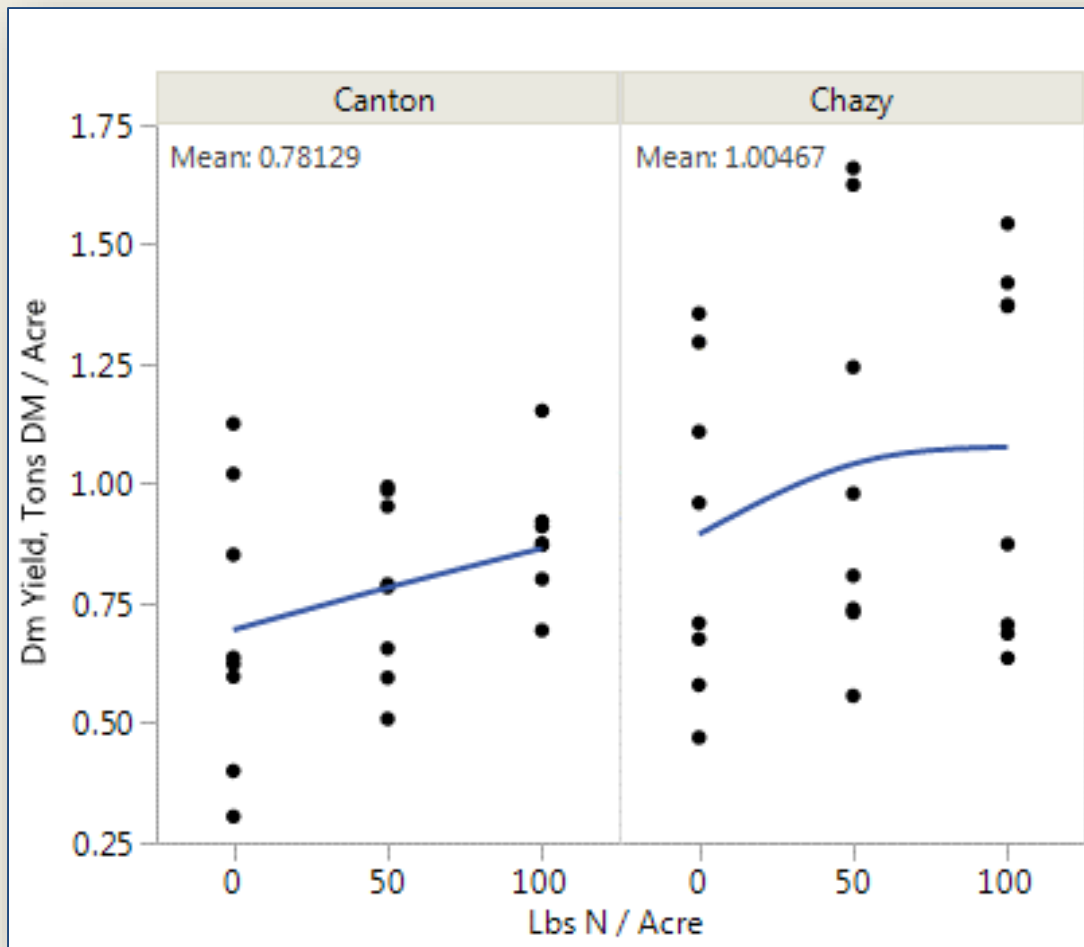
2015 Oat DM Yield, tons per acre



- Avg 0.78 and 1.00 tons DM/acre
- Grain variety yielded better at Chazy, but not Canton
- Significant Crown Rust on Forage variety



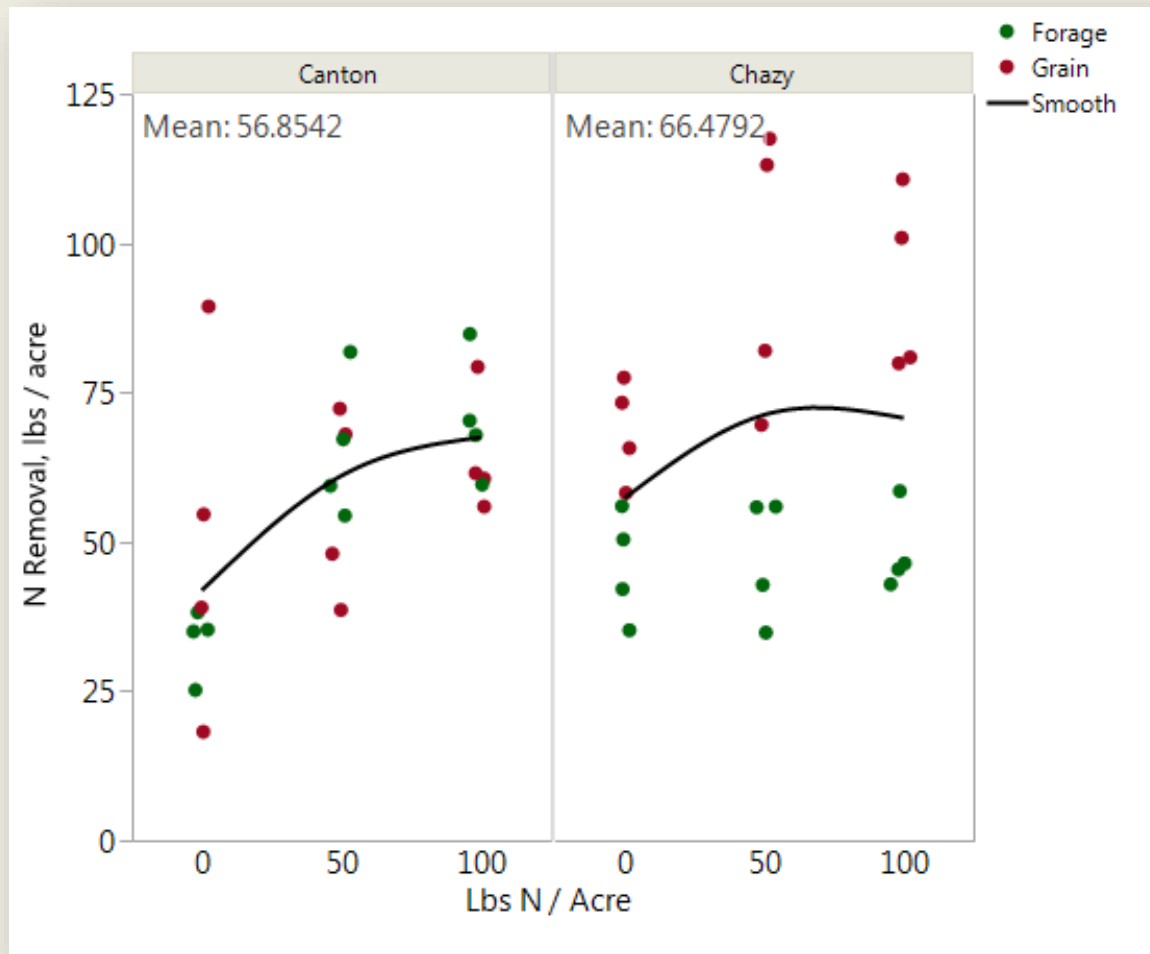
2015 Oat DM Yield, tons per acre



- Avg 0.78 and 1.00 tons DM/acre
- No significant N effect at either location



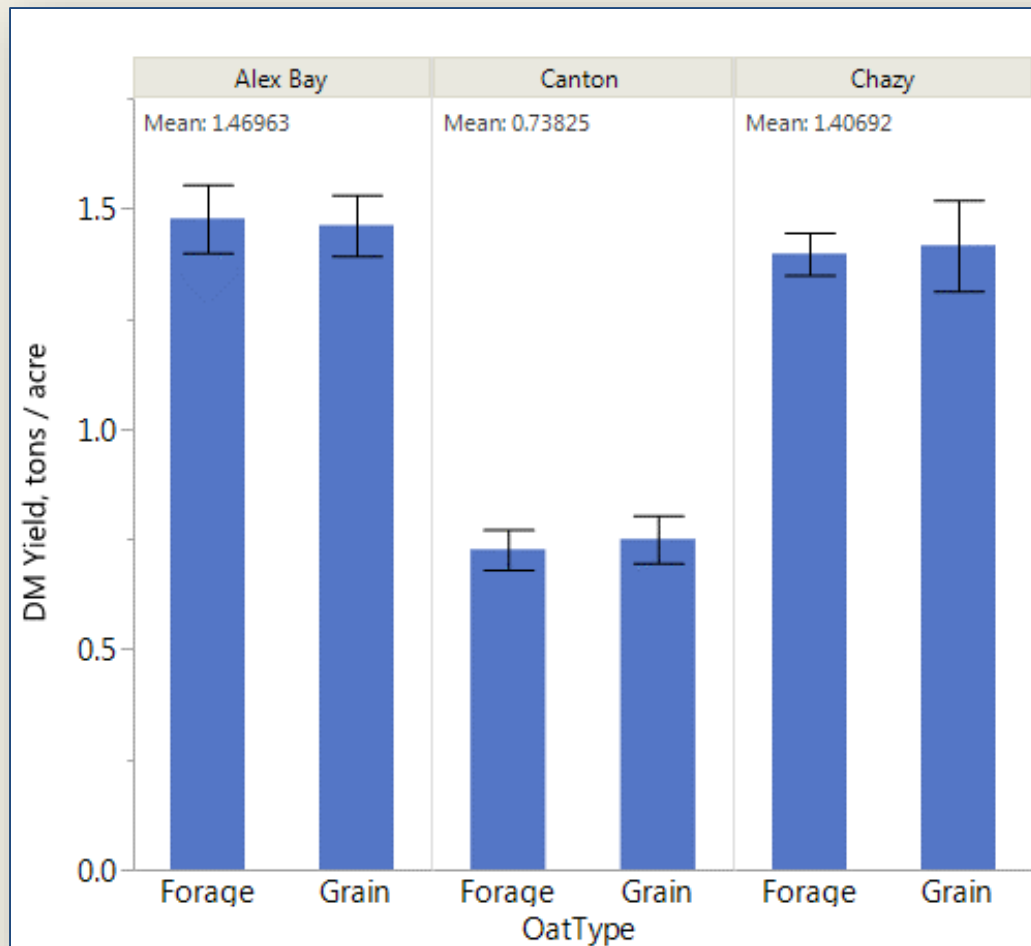
2015 N Removal, lbs / acre



- Avg 56 and 66 lbs / acre
- Ranged from 20 to 120 lbs / acre



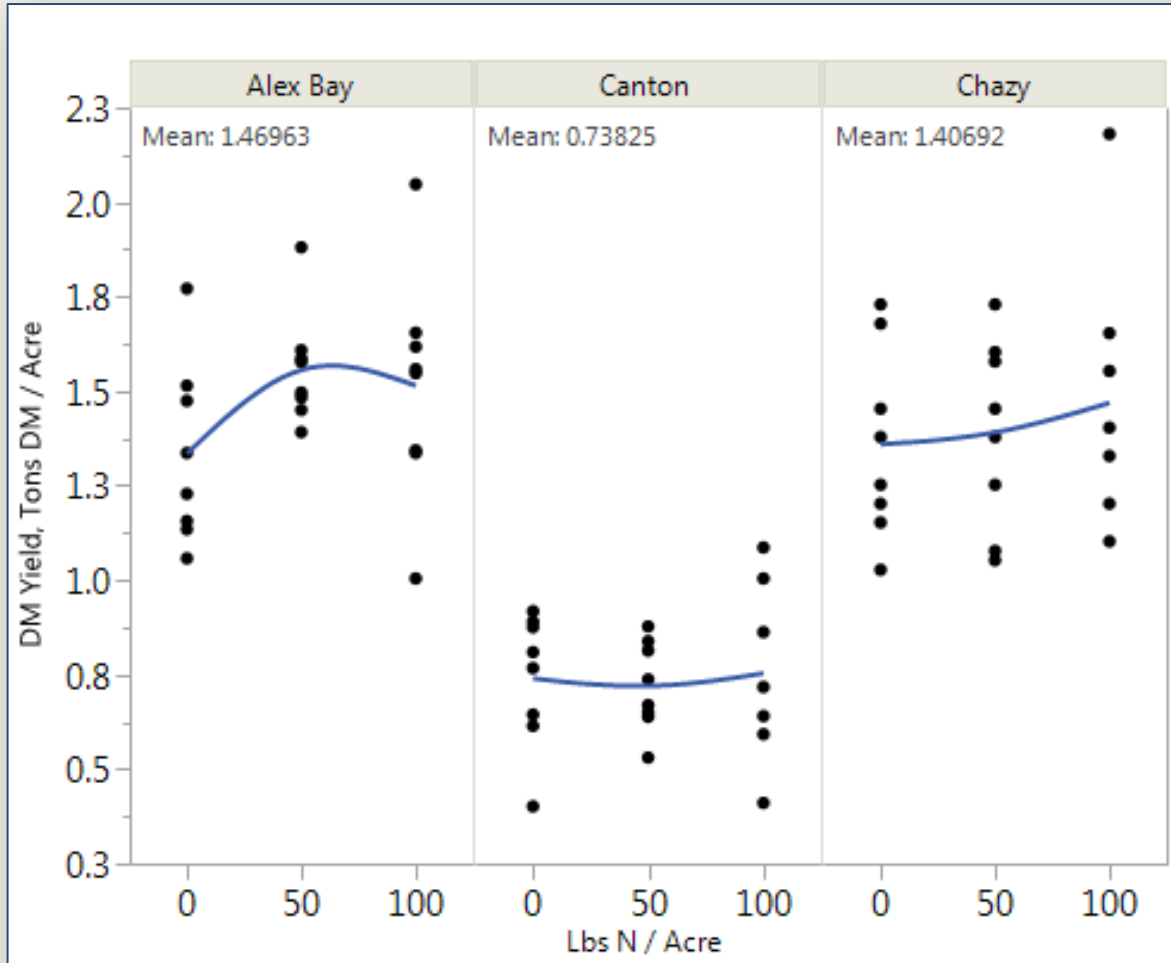
2016 Oat DM Yield, tons per acre



- Avg 1.47, 0.74 and 1.41 tons DM/acre
- Grain and Forage oat type equivalent



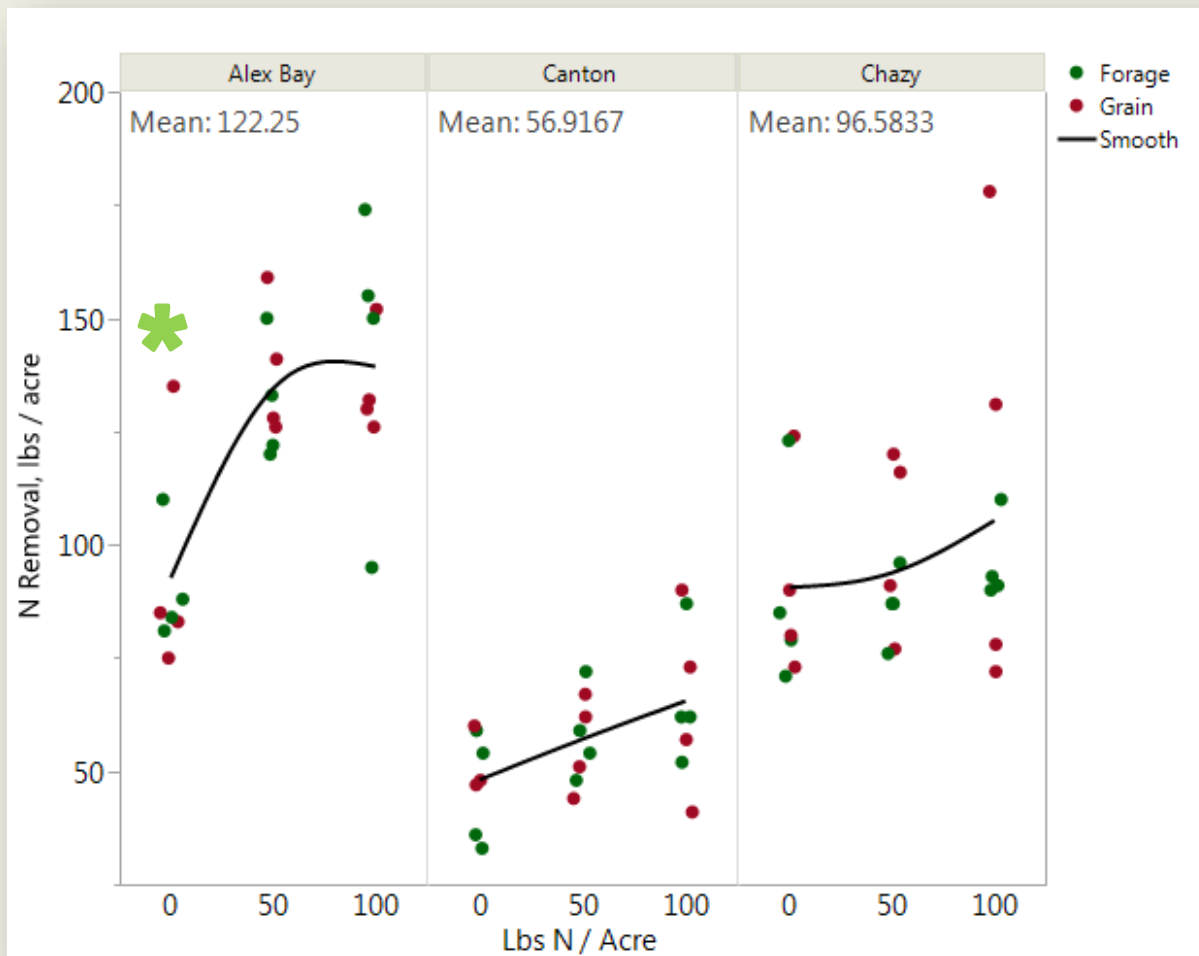
2016 Oat DM Yield, tons per acre



- Avg 1.47, 0.74 and 1.41 tons DM/acre
- No significant N effect at any location



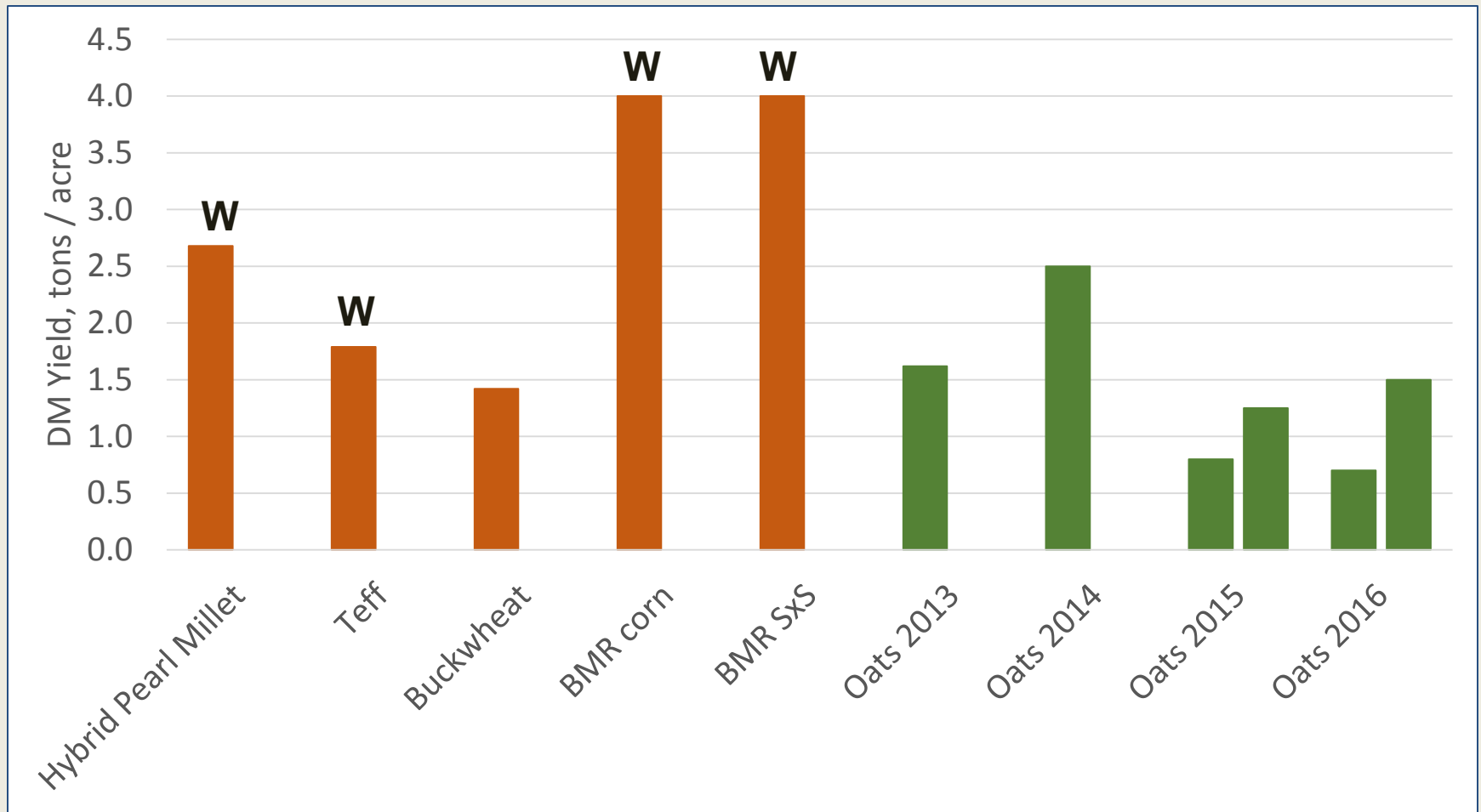
2016 N Removal, lbs / acre



- N treatment significantly increased N removal above 0N in Alex Bay only
- Avg 122, 57 and 97 lbs removed.
- Ranged from 33 to 178 lbs N / acre removed



Yield of Late Summer Forages



Conclusions

- No reason to use a forage variety of oats for late summer forage oats planting
- Yield was poor in droughty conditions. 0.7 to 1.5 tons / acre
- No response to N, though %CP responded in one location-year out of 6.



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