

Preliminary Study of Teff (*Eragrostis tef*) in Manitoba: Seeding rate and quality analysis

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Teff is a warm-season annual grass originating in northeast Africa, where it is grown for forage and grain.

Methods

- All treatments were replicated (x3 at Arborg, x4 at Roblin)
- Treatments were seeding rates of 4, 5, 6 & 7 lb/ac, seeded 1st week of June
- First forage cut was taken 4th week July in Arborg and Roblin
- Second cut was taken 4th week Aug (Arborg) and 4th week Sept (Roblin)
- Grain harvest was 1st week Oct (Roblin)
- Yield and quality (wet chemistry feed test, 2FF) were compared to barley greenfeed

Results

- In 2021 all teff treatments had more forage yield than greenfeed; in 2022, barley yields were more than any teff treatment
- Forage yield did not differ by seeding rate
- Teff grain yield differed significantly between hayed and not-hayed treatments, but not by seeding rate
- Two cuts yielded more teff forage than a single cut for all treatments.
- Protein content and digestibility decreased as yield increased

Teff can be grown in Manitoba to produce good yields of high quality forage and can be harvested for grain.



Complete
2021 Results

CLOCKWISE
FROM LEFT:

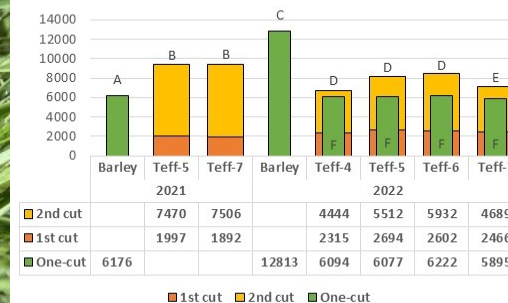
- 1st cut (July)
- 2nd cut (Sept)
- At maturity (Oct)
- Cleaned grain



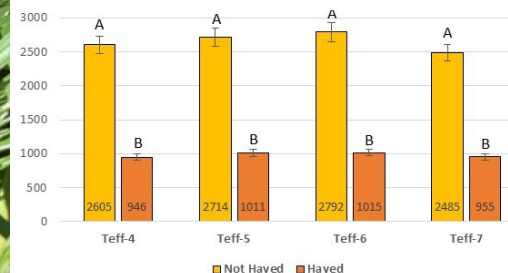
Discussion

- Teff produced higher forage yield than barley greenfeed in Roblin in 2021, but teff yields were lower at both sites in 2022. The difference is likely due to lower rainfall in 2021.
- Number and timing of cuts affects teff yield and feed quality.
- Global and domestic demand for teff grain is high.

Teff Forage Yield, Roblin, 2021-2022 (lb/ac)



Teff Forage Yield, Arborg 2022 (lb/ac)



Feed Values for Teff Hay and Straw

	Arborg 2022		Roblin 2022			Roblin 2021	
	Hay		Hay	Straw		Hay	
	First cut (July 28)	Second cut (Aug 23)	First cut (July 28)	Hayed (Oct 6)	Not Hayed (Oct 6)	First cut (July 15)	Second cut (Sept 28)
Dry Matter Values (%)							
Crude Protein	20.37	17.59	18.02	10.33	8.43	20.85	11.38
TDN	59.92	61.39	63.53	55.35	51.66	69.17	59.85
ADF	36.24	34.86	32.86	40.52	43.97	27.58	36.31
NDF	61.53	62.19	60.53	70.31	70.46	59.67	65.75
Ca	0.53	0.49	0.42	0.35	0.34	0.77	0.51
P	0.24	0.25	0.35	0.15	0.14	0.22	0.23