

**Evaluating a single-pass alfalfa-corn silage intercrop to enhance forage production, profitability, & soil and water health**

**Treatments**

- 1 30" corn silage control
- 2 Spring-planted alfalfa control
- 3 60" corn silage (same population as 30")
- 4 30" corn silage with alfalfa
- 5 60" corn silage with alfalfa (same population as 30")

**Materials & Methods Overview**

Corn silage = shorter day Brevant corn silage  
 Tillage = all yr. 1 and corn only in yr 2; strip tillage for yr 2  
 Fertilizer = following manure management plan  
 Alfalfa = shade tolerant, glyphosate-resistant  
 Planter = Lemken  
 Forage harvester: CLAAS chopper

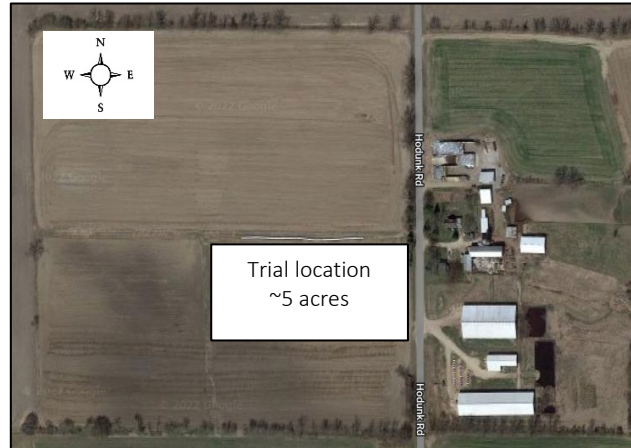
**Measured data**

Baseline and final soil tests  
 Weekly staging  
 Stand counts @ V2 and harvest  
 Plant heights weekly through 4th wk.  
 Crop yield (alfalfa, corn silage+alfalfa, corn silage)  
 Forage and silage quality

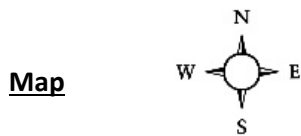
**Experiment Design**

Randomized complete block with 3 Replications  
 Experiment Size: 630' x 300'  
 Plot size: 630' x 20', (8 rows of 30" corn or 4 rows of 60" corn)  
 4.4 acres total = 189,000 square ft.

**Trial Location** - GPS coordiantes 42°7'N 88°4' W



Soil types: MyB, Miami and MpB, McHenry silt loams, both 2-6% slopes, and Ph Pella silt loam, 0-2% slopes  
 3 access points: from the road, to the N and W of trial.



**Map**

----- 630 ft. ----->

	Plot #	Treatment #		
Rep 3	305	4	20'	T
	304	3	20'	I
	303	5	20'	I
	302	1	20'	I
	301	2	20'	I
Rep 2	205	5	20'	I
	204	1	20'	I
	203	4	20'	300 ft.
	202	2	20'	I
	201	3	20'	I
Rep 1	105	5	20'	I
	104	2	20'	I
	103	1	20'	I
	102	3	20'	I
	101	4	20'	I