



Effect of Foliar Fertilizer Program on Alfalfa Yield

Butler, PA

Experiment Info	
Planted:	5/15/2019
Harvested:	6/12/2022
Yield Goal:	
Variety:	
Pop.:	
Row Width:	7"
Prev. Crop:	
Plot Size:	2 acres
Reps:	1

Soil Test (ppm)	
pH:	6.7
CEC:	9.2
%OM:	3.8
Bray P1:	95
Bicarb P:	
K:	240
S:	5
%K:	6.7
%Mg:	18
%Ca:	74.8
%H:	0.5
Zn:	1.2
Mn:	4
B:	0.3

Objective:

- Evaluate the effect of foliar applied fertilizer on yield and forage quality of alfalfa.
- Control treatment was 100 lb/acre dry potash 0-0-60 broadcast after first harvest.
- AgroLiquid treatment was CalSip (formerly S-Calate) 1 gal/a + Sure-K 1 gal/a + Micro 500 0.25 gal/a + Boron 0.18 gal/a applied after first harvest. A second application of the same treatment was made after second harvest.
- Plots were harvested and forage samples from each plot were analyzed for forage quality parameters. That information was used to estimate milk production per ton of forage and milk production per acre. Milk production was estimated using the "Milk 2006" model developed by the University of Wisconsin.

Parameter	AgroLiquid	Control treatment	AgroLiquid	Control treatment		AgroLiquid	Control treatment
	2nd Harvest		3rd Harvest			Average or Total	
Crude Protein	19.60	20.10	22.00	20.35		20.80	20.23
ADF	37.10	33.30	35.10	33.75		31.80	30.40
aNDF	45.00	40.45	40.90	41.35		40.30	37.90
RFQ	133	157	138	146		135.25	151.25
NDFD 48hr	22.10	20.95	18.60	19.85		20.35	20.40
Milk/ton	2516	2732	2485	2635		2500.50	2683.50
Tons/acre dry	1.18	1.03	0.91	0.90		2.09	1.93
Milk/acre	2456	2689	1776	1982		5229	5176
AgroLiquid Treatment:		CalSip 1 gal/a + Sure-K 1 gal/a + Micro 500 0.25 gal/a + Boron 0.18 gal/a after 1st and 2nd harvest					
Control Treatment:		100 lb/a Dry Potash after 1st harvest					

Conclusions:

- The trial area experienced very dry and warm conditions during the growing season.
- Forage yield in the AgroLiquid treatment was somewhat higher than the yield in the control treatment. This is consistent with the results of this trial conducted in 2021.
- Forage quality was similar for both the control and AgroLiquid treatments. The similar quality and higher forage yield in the AgroLiquid treatment provided a higher estimated milk production per acre than the control treatment. This was also consistent with the results of this trial conducted in 2021.