



Foliar Fertilizer Effect on Grass + Alfalfa Forage Yield

Butler, PA

Experiment Info	
Planted:	5/8/2019
Harvested:	6/12/2022
Yield Goal:	
Variety:	
Pop.:	
Row Width:	7"
Prev. Crop:	
Plot Size:	2 acres
Reps:	1

Soil Test (ppm)	
pH:	6.2
CEC:	9.8
%OM:	4.2
Bray P1:	80
Bicarb P:	
K:	115
S:	7
%K:	3.0
%Mg:	15.9
%Ca:	68.8
%H:	12.5
Zn:	1.6
Mn:	7
B:	0.2

Objective:

- Evaluate the effect of foliar applied fertilizer on yield and forage quality of a grass + alfalfa mixed forage stand.
- Control treatment was 200 lb/acre dry potash 0-0-60 broadcast after first harvest.
- AgroLiquid treatment was 200 lb/acre dry potash 0-0-60 broadcast after first harvest followed by fertiRain applied foliar at 3 gallons/acre on the same day. A second application of fertiRain at 3 gallons/acre 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, using the "Milk 2006" model developed by the Univ. of Wisconsin.

Parameter	AgroLiquid	Control treatment	AgroLiquid	Control treatment	Average or Total	
	2nd Harvest		3rd Harvest		AgroLiquid	Control treatment
Crude Protein	19.70	19.55	22.95	23.50	21.33	21.53
ADF	32.90	34.00	31.60	31.00	32.25	32.50
aNDF	46.45	42.95	37.40	36.45	41.93	39.70
RFQ	154	148	156	161	155.00	154.50
NDFD 48hr	21.50	22.10	17.05	16.30	19.28	19.20
Milk/ton	2734	2727	2710	2767	2721.75	2746.75
Tons/acre dry	0.81	0.79	0.52	0.45	1.33	1.24
Milk/acre	2201	2159	1263	1245	3620	3406
AgroLiquid Treatment:	200 lb/a Dry Potash after 1st harvest fertiRain 3 gal/acre after 1st and 2nd harvest					
Control Treatment:	200 lb/a Dry Potash after 1st harvest					

Conclusions:

- The trial area was very dry and warm during the growing season.
- Forage yield in the AgroLiquid treatment was somewhat higher than the yield in the control. This result is similar to the same trial conducted in 2021 at the Butler, PA location.
- Forage quality was similar for both the control and AgroLiquid treatments. The similar quality higher forage yield provided a higher estimated milk production in the AgroLiquid treatment compared to the control. This result is also similar to the same trial conducted in 2021 at the Butler, PA Location.