



For The Soil | For The Plant | For the Future

Alfalfa

AgroLiquid from a new perspective



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We usually think of fertilizing to maintain or increase yields.



But what if we could do more than that?

A lot more than that!





AGROLIQUID®

2016 Research Results

37% more yield per cutting.

5% more protein.

40% more milk per acre.

6% lower lignin.

4 days quicker to maturity

These results are significant. AgroLiquid products are doing something unique and very good in the plant!

- 40.5% more milk produced per acre!!!
- 37.3% more dry matter tons/acre.
- 33% faster digestion rate.
- 2.6 more lbs of milk/cow/day.
- 5% more protein.

Average of 11 trial results in

2016: Parameter	AgroLiquid treatments	Other treatments	AgroLiquid Difference	% AgroLiquid Advantage
Dry matter yield	3063	2231	831	37.3%
CP	22.34	21.34	1.01	4.7%
Avail. CP	21.63	20.31	1.33	6.5%
ADF	31.07	31.50	0.43	1.4%
aNDF	39.39	42.18	2.79	7.1%
RFV	157	149	7	4.9%
RFQ	180	158	22	13.7%
NDFD 48hr	55.90	51.06	4.84	9.5%
Dynamic NDF kd	7.81	5.86	1.95	33.4%
TTNDFD	48.40	44.79	3.62	8.1%
Lignin	6.01	6.37	0.36	5.9%
NEL Mcal/lb	0.642	0.636	0.006	0.9%
NEg	0.390	0.356	0.034	9.5%
NEm	0.656	0.619	0.037	6.0%
Milk/ton	2822	2691	131	4.8%
Tons/acre dry	1.53	1.12	0.42	37.3%
Milk/acre	4271	3040	1232	40.5%

Other benefits for AgroLiquid -

- Maintain or increase milk output with less grain = less acidosis and higher butterfat.
- 3 to 5 days faster to maturity between each cutting (observed on most trials).
- May be possible to reduce fertilizer rates.
- 6% lower lignin on average.

AgroLiquid a Wonderful Fit

- AgroLiquid products are a wonderful fit for alfalfa. Of all crops, alfalfa is perhaps the most tolerant of foliar applications, and may be the most efficient in leaf absorption of those nutrients. Therefore foliar application rates in alfalfa can be higher than in many other crops. Best when applied at least 15 days before cutting.
- Products that work well soil applied, or top-dressed on stubble between cuttings, include Pro-Germinator, Kalibrate, AccesS, Micro 500 and 600.
- Products that work well as foliars include Sure-K, ferti-Rain, S-Calate, MicroLink Mn & B, eNhance, NResponse, Micro 500.



- As a foliar treatment in alfalfa, Sure-K is a wonderful and powerful potassium source. In my trials, it has reliably increased the rate of growth, tonnage, sugars, and digestibility. It also improves the palatability of the hay – sometimes dramatically so. Best timing is on 6” - 8” regrowth. Application rate per cutting can be from 2 to 7 gpa (gallons/acre). I highly recommend including it when applying ferti-Rain or micronutrients. It blends well with insecticides, fungicides, and herbicides.
- Sure-K may reduce or eliminate dry potash depending on soil K levels.



- Pro-Germinator is very flexible for alfalfa. It can be applied as a top-dress between cuttings, through an irrigation system (depending on pH of the water), or as a foliar blended with other AgroLiquid nutrients. Regardless of method, rates can be 2 to 8 gpa per application. Keep in mind that phosphorus is not absorbed through the leaf as efficiently as other nutrients.
- Pro-Germinator may reduce or eliminate the need for 11-52-0 depending on soil test P levels.



- ferti-Rain is wonderful on alfalfa. In my trials it increased tonnage, protein, and improved quality and digestibility. It was shown in my trials to reduce the number of days to maturity between cuttings by 3-5 days. Especially good with Sure-K. Application rate per cutting is 0.5 to 3 gpa, best when applied at 6 to 8" re-growth. Make it a go-to especially on grass-alfalfa mixtures.



- Two great sulfur products for alfalfa. In my trials these products combined with Sure-K improved quality and digestibility compared to a control treatment of AMS
- +potash. Application can be as a top-dress to the stubble between cuttings at 1 to 4 gpa, or as foliar treatments at 1 to 3 gpa per application. Of the two, I prefer S-Calate when applied foliar because calcium nutrition for alfalfa is important.



Boron



Manganese

- Manganese and boron are a must for alfalfa in most areas of the country. The only exceptions are when soil test B or Mn is high, such as in some areas of Utah. They are especially good combined with Sure-K and/or ferti-Rain in foliar applications. Application rates typically range from 1 pint to 1 quart per application. I prefer multiple applications at those rates if needed rather one-shot higher rates.



Micro 500™

- Micro 500 is highly effective in alfalfa, with multiple application options. Like many of our products in alfalfa it can be soil applied ahead of or at planting, topdressed on the stubble between cuttings, or as a foliar treatment. I like it combined with Pro-Germinator, Sure-K, and/or ferti-Rain in foliar treatments, or combined with Pro-Germinator and Kalibrate for soil or stubble applications. The rate range is from 1 pint to 2 quarts per application regardless of application method. Some growers have discovered that when added to glyphosate on Roundup Ready alfalfa it reduces the crop injury that sometimes occurs in colder temperatures.



- Alfalfa requires a lot of calcium nutrition, its high calcium content is one reason it's the "King of Forages" for dairy cattle. Liberate Ca is a highly efficient as a foliar treatment in alfalfa. Works great combined with Sure-K and/or ferti-Rain. Application rates typically range from 1 pint to 1 quart per application but it can be higher with no risk of leaf burn. LiberateCa does not change soil pH, so ag lime will be required if pH is low. A unique aspect of LiberateCa is that it can be safely than-mixed with Pro-Germinator.

High **N**RG-N e**N**hance **N**Response™

- These N sources are great on grass-alfalfa mixes. High-NRG-N works extremely well when soil applied pre-plant or pre-emergence on new seeding alfalfa-grass mixes. It greatly outperformed urea on my Olsen trials.
- NResponse is great as a foliar, and eNhance can be applied to soil or foliar at any stage as a source of nitrogen and sulfur.

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