

Increasing Alfalfa Forage Quality with PURIC® Humic Acid



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The benefits of humic acid in agriculture have been well documented in the scientific literature. Some of the most significant advantages from the grower's perspective include:

- Increased nutrient uptake - particularly phosphorus and the micronutrients
- Accelerated germination
- Increased root mass
- Increased shoot growth
- Increased crop yield and/or quality

To evaluate the effects of PURIC humic acid on alfalfa, a replicated trial was established in Central OR (Powell Butte) that compared sequential applications of a liquid formulation (PURIC PRIME 12% humic acid) plus a dry formulation (PURIC WSG 67% humic acid) to the untreated control on established alfalfa. Treatments are presented below.

TREATMENT	PRODUCT	RATE	TIMING
Untreated			
Treated	PURIC PRIME	2 quarts	8/31/2021
	PURIC WSG	2 pounds	4/22/2022 – breaking dormancy
	PURIC PRIME	2 quarts	7/5/2022 – 2 weeks after 1st cutting
	PURIC PRIME	2 quarts	8/6/2022 – 2 weeks after 2nd cutting

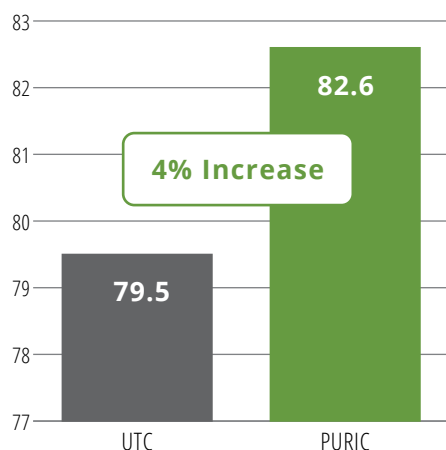
PURIC PRIME simulated application through center pivot. PURIC WSG applied with spring dry fertilizer.

Soil type: Redmond Ashy Sand, pH 6.9, CEC 14.6 meq/100 gm, OM 5.3%

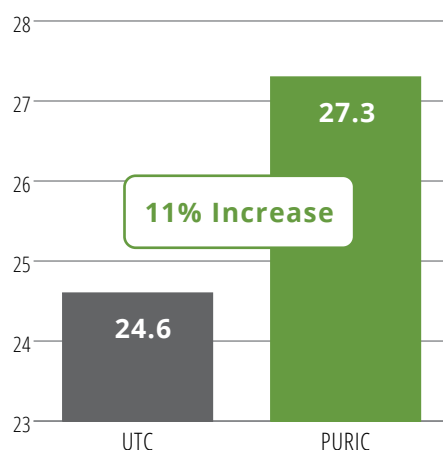
The data below show forage quality after the third cutting.

PCR20G053OR401

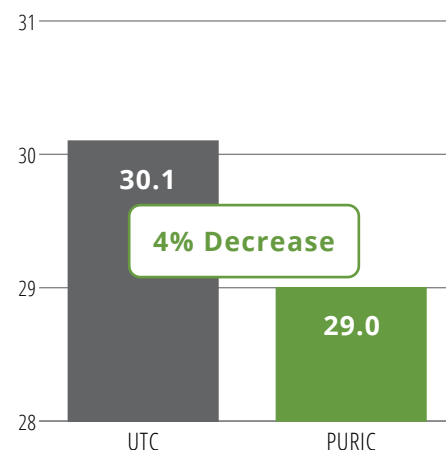
Moisture at Cutting (%)



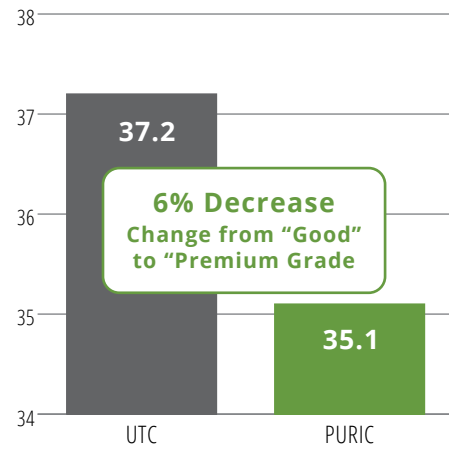
Crude Protein (% of DM)



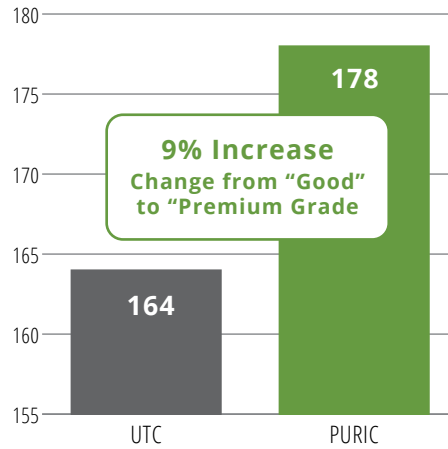
ADF (% of DM)



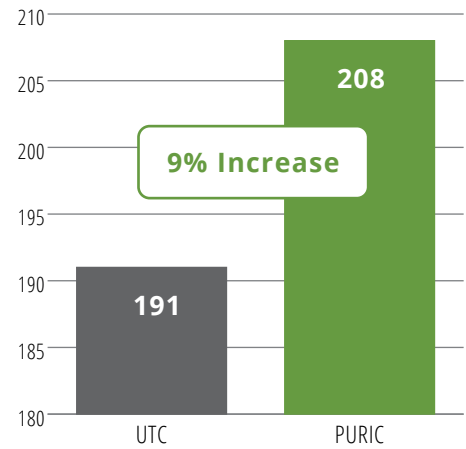
NDF (% of DM)



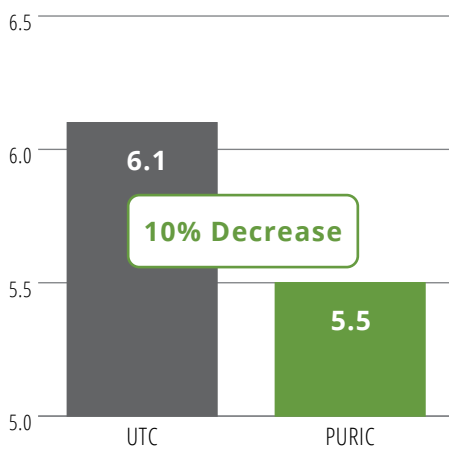
Relative Feed Value



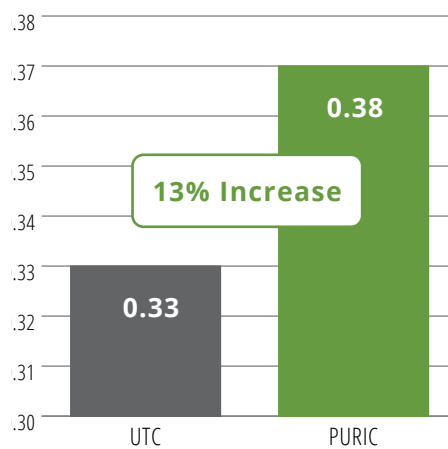
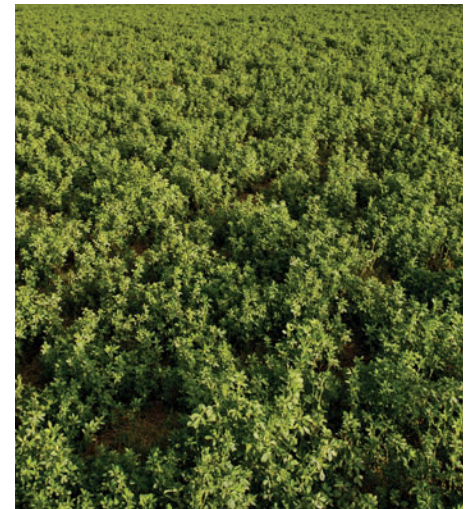
Relative Forage Quality



Lignin (% of DM)



Phosphorus (% of DM)



SUMMARY OF FINDINGS

- Sequential applications of PURIC humic acid had positive effects on alfalfa hay quality including:
 - Reduced acid detergent fiber, neutral detergent fiber, and lignin
 - Increases in moisture at cutting, crude protein, phosphorus, relative feed value, and relative forage quality
- Yield differences were highly variable due to gopher activity

It should be noted that our data over years of testing indicate that differences in hay quality are not usually impacted until the 2nd or 3rd cutting.

Alfalfa producers should be able to capture a higher price for their hay by increasing the forage quality with PURIC products.

Connect with your Wilbur-Ellis sales representative for more details on PURIC humic acid products.

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