



# CUMBERLAND VALLEY ANALYTICAL SERVICES

Laboratory services for agriculture ... from the field to the feed bunk.

**Farm:** SALAZAR RANCHES  
**Desc:** ERS #8 ALFALFA  
**Submitter:** SALAZAR, JOHN T.  
**Account:** SALAZAR RANCHES

**Copies to:**

**Lab ID:** 22412 031  
**Sampled:** 07/11/2017  
**Arrived:** 07/17/2017  
**Completed:** 07/17/2017  
**Reported:** 07/17/2017

## ERS #8 ALFALFA

### SAMPLE INFORMATION

Lab ID: 22412 031      Version: 1.0  
Crop Year: 2017      Series:  
Feed Type: LEGUME FORAGE      Cutting#: 1  
Package: BASIC NIR

### NIR ANALYSIS RESULTS

Moisture 10.7  
Dry Matter 89.3

### PROTEINS

	% SP	% CP	% DM
Crude Protein			23.3
Adjusted Protein			
Soluble Protein		46.7	10.9
Ammonia (CPE)	9.6	4.5	1.05
ADF Protein (ADICP)		5.2	1.22
NDF Protein (NDICP)		7.9	1.85
NDR Protein (NDRCP)			
Rumen Degr. Protein		73.4	17.1
Rumen Deg. CP (Strep.G)			

### FIBER

	% NDFom	NDFom %DM	% NDF	% DM
ADF			83.0	26.8
aNDF		31.3		32.3
NDR (NDF w/o sulfite)				
peNDF				
Crude Fiber				
Lignin			18.3	5.91
NDF Digestibility (12 hr)				
NDF Digestibility (24 hr)				
NDF Digestibility (30 hr)	44.4	13.9	43.2	13.9
NDF Digestibility (48 hr)				
NDF Digestibility (120 hr)	50.1	15.7	48.7	15.7
NDF Digestibility (240 hr)	52.7	16.5	51.2	16.5
uNDF (30 hr)	55.6	17.4	56.8	18.4
uNDF (120 hr)	49.9	15.6	51.3	16.6
uNDF (240 hr)	47.3	14.8	48.8	15.8

### CARBOHYDRATES

	% Starch	% NFC	% DM
Silage Acids			
Ethanol Soluble CHO (Sugar)		27.7	9.0
Water Soluble CHO (Sugar)			
Starch		7.7	2.5
Soluble Fiber			
Starch Dig. (7 hr, 4 mm)			
Fatty Acids, Total			1.55
Fatty Acids (%Fat)			57.0
Crude Fat			2.72

### MINERALS

Ash (%DM)	11.0
Calcium (%DM)	1.63
Phosphorus (%DM)	0.26
Magnesium (%DM)	0.31
Potassium (%DM)	2.43
Sulfur (%DM)	0.30
Sodium (%DM)	
Chloride (%DM)	
Iron (PPM)	
Manganese (PPM)	
Zinc (PPM)	
Copper (PPM)	
Nitrate Ion (%DM)	
Selenium (PPM)	
Molybdenum (PPM)	

### QUALITATIVE

Total VFA (%DM)  
Lactic Acid (%DM)  
Lactic as % of Total VFA  
Acetic Acid (%DM)  
Butyric Acid (%DM)  
1, 2 Propanediol (%DM)

Soil Contamination Probability      Probable low to none  
Nitrate Probability      Probable low nitrate level  
NIR Statistical Confidence      Excellent prediction potential

### ENERGY & INDEX CALCULATIONS

pH	
TDN (%DM)	64.5
Net Energy Lactation (Mcal/lb)	0.65
Net Energy Maintenance (Mcal/lb)	0.65
Net Energy Gain (Mcal/lb)	0.38
NDF Dig. Rate (Kd, %HR, Van Amburgh, Lignin*2.4)	4.48
NDF Dig. Rate (Kd, %HR, uNDF)	5.43
Starch Dig. Rate (Kd, %HR, Mertens)	
Relative Feed Value (RFV)	196
Relative Feed Quality (RFQ)	194
Milk per Ton (lbs/ton)	3057
Dig. Organic Matter Index (lbs/ton)	1263
Non Fiber Carbohydrates (%DM)	32.5
Non Structural Carbohydrates (%DM)	11.5
DCAD (meq/100gdm)	
CNCPS / CPM Lignin Factor	6.6
Summative Index % (Mass Balance)	
Additional sample information, source and lab pictures	



Values in bold were analyzed by wet chemistry methods.

Definitions and explanation of report terms



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# CUMBERLAND VALLEY ANALYTICAL SERVICES

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**Farm:** SALAZAR RANCHES  
**Desc:** ERS #9 ALFALFA  
**Submitter:** SALAZAR, JOHN T.  
**Account:** SALAZAR RANCHES

**Copies to:**

**Lab ID:** 22412 032  
**Sampled:**  
**Arrived:** 07/17/2017  
**Completed:** 07/17/2017  
**Reported:** 07/17/2017

## ERS #9 ALFALFA

### SAMPLE INFORMATION

Lab ID: 22412 032      Version: 1.0  
Crop Year: 2017      Series:  
Feed Type: LEGUME FORAGE      Cutting#: 1  
Package: BASIC NIR

### NIR ANALYSIS RESULTS

Moisture 11.1  
Dry Matter 88.9

### PROTEINS

	% SP	% CP	% DM
Crude Protein			24.8
Adjusted Protein			
Soluble Protein		47.9	11.9
Ammonia (CPE)	11.6	5.5	1.37
ADF Protein (ADICP)		5.3	1.32
NDF Protein (NDICP)		8.6	2.12
NDR Protein (NDRCP)			
Rumen Degr. Protein		73.9	18.3
Rumen Deg. CP (Strep.G)			

### FIBER

	% NDFom	NDFom %DM	% NDF	% DM
ADF			83.6	26.9
aNDF		30.5		32.1
NDR (NDF w/o sulfite)				
peNDF				
Crude Fiber				
Lignin			19.3	6.21
NDF Digestibility (12 hr)				
NDF Digestibility (24 hr)				
NDF Digestibility (30 hr)	44.6	13.6	42.3	13.6
NDF Digestibility (48 hr)				
NDF Digestibility (120 hr)	51.8	15.8	49.2	15.8
NDF Digestibility (240 hr)	54.5	16.6	51.8	16.6
uNDF (30 hr)	55.4	16.9	57.7	18.5
uNDF (120 hr)	48.2	14.7	50.8	16.3
uNDF (240 hr)	45.5	13.9	48.2	15.5

### CARBOHYDRATES

	% Starch	% NFC	% DM
Silage Acids			
Ethanol Soluble CHO (Sugar)		29.6	9.3
Water Soluble CHO (Sugar)			
Starch		7.1	2.2
Soluble Fiber			
Starch Dig. (7 hr, 4 mm)			
Fatty Acids, Total			1.55
Fatty Acids (%Fat)			56.6
Crude Fat			2.74

### MINERALS

Ash (%DM)	11.0
Calcium (%DM)	1.65
Phosphorus (%DM)	0.26
Magnesium (%DM)	0.33
Potassium (%DM)	2.27
Sulfur (%DM)	0.32
Sodium (%DM)	
Chloride (%DM)	
Iron (PPM)	
Manganese (PPM)	
Zinc (PPM)	
Copper (PPM)	
Nitrate Ion (%DM)	
Selenium (PPM)	
Molybdenum (PPM)	

### QUALITATIVE

Total VFA (%DM)  
Lactic Acid (%DM)  
Lactic as % of Total VFA  
Acetic Acid (%DM)  
Butyric Acid (%DM)  
1, 2 Propanediol (%DM)

Soil Contamination Probability      Probable low to none  
Nitrate Probability      Probable moderate nitrate level  
NIR Statistical Confidence      Excellent prediction potential

### ENERGY & INDEX CALCULATIONS

pH	
TDN (%DM)	64.4
Net Energy Lactation (Mcal/lb)	0.65
Net Energy Maintenance (Mcal/lb)	0.64
Net Energy Gain (Mcal/lb)	0.38
NDF Dig. Rate (Kd, %HR, Van Amburgh, Lignin*2.4)	4.71
NDF Dig. Rate (Kd, %HR, uNDF)	5.07
Starch Dig. Rate (Kd, %HR, Mertens)	
Relative Feed Value (RFV)	197
Relative Feed Quality (RFQ)	193
Milk per Ton (lbs/ton)	3056
Dig. Organic Matter Index (lbs/ton)	1253
Non Fiber Carbohydrates (%DM)	31.5
Non Structural Carbohydrates (%DM)	11.5
DCAD (meq/100gdm)	
CNCPS / CPM Lignin Factor	6.5
Summative Index % (Mass Balance)	
Additional sample information, source and lab pictures	



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