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Lab No.: 1618		<b>LABORATORY ANALYSIS REPORT</b>		Report Date: 01/16/2026 08:51 am	
<b>Send To:</b> 60058		TAHOMA VISTA FIBER MILL LA VIDA ALPACA 15631 159TH LN SE YELM, WA 98597		 Hans Burken Lab Manager	
<b>Results For:</b> <b>Sample ID:</b>		LA VIDA ALPACA WOOL PELLETS		<b>Received:</b> 01/06/2026 <b>Sampled:</b> 12/30/2025 <b>Invoice No:</b> 995001	

	Analysis (as rec'd)	Total content lbs per ton (as rec'd)	Estimated available first year* lbs per ton (as rec'd)
<b>NUTRIENTS</b>			
<u>Nitrogen</u>			
Total Nitrogen	%	9.995	199.9
Organic Nitrogen	%	9.97	199.4
Ammonium Nitrogen	%	0.014	0.3
Nitrate Nitrogen	%	0.010	0.2
<u>Major and Secondary Nutrients</u>			
Phosphorus	%	0.076	
Phosphorus as P2O5	%	0.173	3.5
Potassium	%	3.50	
Potassium as K2O	%	4.20	84.0
Sulfur	%	2.21	44.2
Calcium	%	0.322	6.4
Magnesium	%	0.114	
Magnesium as MgO	%	0.189	3.8
Sodium	%	0.169	3.4
<u>Micronutrients</u>			
Zinc	mg/kg	124	0.2
Iron	mg/kg	2000	4.0
Manganese	mg/kg	65	0.1
Copper	mg/kg	9	<0.1
Boron	mg/kg	5	<0.1
<b>OTHER PROPERTIES</b>			
Moisture	%	13.2	
Solids	%	86.8	1736
Organic Matter	%	76.9	1538
Ash	%	9.9	198
C:N Ratio	ratio	4.5	
Electrical Conductivity	mmho/cm	4.08	
pH	unit	9.6	

The reported analytical results apply only to the sample as it was supplied.  
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\* Assumes 53% of organic nitrogen available during first crop year after application. Assumes 100% of ammonium and nitrate nitrogen available, but should be adjusted for potential field losses at application site.




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### Nitrogen Based Application Rate\*

Material applied during:	Desired plant available nitrogen rate (first year after application) as pounds N per acre									
<b>Warm, Wet Weather</b>	50	100	150	200	250	50	100	150	200	250
Application Method:	tons solid waste per acre					gallons liquid waste per acre				
Injected	0.5	1.0	1.5	2.0	2.5	100	200	300	400	600
Sprinkled	0.5	1.0	1.5	2.0	2.5	100	200	300	400	600
Broadcast and incorporated										
1 day later	0.5	1.0	1.5	2.0	2.5	100	200	300	400	600
4 days later	0.5	1.0	1.5	2.0	2.5	100	200	300	400	600
7 or more days later	0.5	1.0	1.5	2.0	2.5	100	200	300	400	600

Material applied during:	Desired plant available nitrogen rate (first year after application) as pounds N per acre									
<b>Warm, Dry Weather</b>	50	100	150	200	250	50	100	150	200	250
Application Method:	tons solid waste per acre					gallons liquid waste per acre				
Injected	0.5	1.0	1.5	2.0	2.5	100	200	300	400	600
Sprinkled	0.5	1.0	1.5	2.0	2.5	100	200	300	400	600
Broadcast and incorporated										
1 day later	0.5	1.0	1.5	2.0	2.5	100	200	300	400	600
4 days later	0.5	1.0	1.5	2.0	2.5	100	200	300	400	600
7 or more days later	0.5	1.0	1.5	2.0	2.5	100	200	300	400	600

Material applied during:	Desired plant available nitrogen rate (first year after application) as pounds N per acre									
<b>Cool, Wet Weather</b>	50	100	150	200	250	50	100	150	200	250
Application Method:	tons solid waste per acre					gallons liquid waste per acre				
Injected	0.5	1.0	1.5	2.0	2.5	100	200	300	400	600
Sprinkled	0.5	1.0	1.5	2.0	2.5	100	200	300	400	600
Broadcast and incorporated										
1 day later	0.5	1.0	1.5	2.0	2.5	100	200	300	400	600
4 days later	0.5	1.0	1.5	2.0	2.5	100	200	300	400	600
7 or more days later	0.5	1.0	1.5	2.0	2.5	100	200	300	400	600

Select the table with weather conditions closest to those at waste application time. Select the application method and the desired plant available nitrogen rate. Find the waste application rate as either "tons solid waste per acre" or "gallons liquid waste per acre". Assumes density of 9 pounds per gallon.

A portion of the ammonia-nitrogen found in waste materials may be lost by volatilization during and after application. Volatilization losses increase with time, higher temperature, wind, and low humidity. Losses increase with longer delays between surface application (broadcast) and soil incorporation. First-year nitrogen availability based on C:N ratio. Reference: Agricultural Waste Management Field Handbook, Part 651, USDA-Soil Conservation Service, Chap. 11: "Waste Utilization", 1992 and Vigil & Kissel, Soil Sci. Soc. Amer. Proc. 55:757-761, 1991.

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\* Assumes 53% of organic nitrogen available during first crop year after application. Assumes 100% of ammonia and nitrate nitrogen available, but should be adjusted for potential field losses at application site.

### Phosphorus Based Application Rate

Target phosphorus rate, based on est. available P as pounds P <sub>2</sub> O <sub>5</sub> per acre	Recomended application rate		Other available nutrients applied at this application rate*						
			K <sub>2</sub> O	S	Zn	Fe	Mn	Cu	B
	tons/acre	gal/acre	pounds per acre						
10	3.2	710	270	76	0.4	6.4	0.2	0.0	
20	6.4	1,430	539	151	0.8	12.8	0.4	0.1	
30	9.6	2,140	809	227	1.2	19.3	0.6	0.1	
40	12.8	2,850	1,079	302	1.6	25.7	0.8	0.1	
50	16.1	3,570	1,349	378	2.0	32.1	1.0	0.1	
60	19.3	4,280	1,618	453	2.4	38.5	1.3	0.2	
70	22.5	4,990	1,888	529	2.8	45.0	1.5	0.2	
80	25.7	5,710	2,158	605	3.2	51.4	1.7	0.2	
90	28.9	6,420	2,428	680	3.6	57.8	1.9	0.3	
100	32.1	7,140	2,697	756	4.0	64.2	2.1	0.3	

\* The amount of plant available nitrogen depends on the application method and the weather conditions during application. To determine the amount of plant available nitrogen, select the target phosphorus rate and identify the recommended waste application rate. Choose the proper weather condition table on the "Nitrogen Based Application" page and the proper line for application method. Identify the closest waste application rate on this line. The plant available nitrogen rate will be found directly above.




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### Salinity Based Application Rate

Precipitation plus irrigation, inches per year	Soil texture					
	Fine	Medium	Coarse	Fine	Medium	Coarse
	Maximum recommended annual application rate: tons solid waste per acre			gallons liquid waste per acre		
14	3.6	4.1	5.5	800	900	1,200
16	4.1	4.7	6.3	900	1,000	1,400
18	4.6	5.3	7.1	1,000	1,200	1,600
20	5.1	5.8	7.9	1,100	1,300	1,800
22	5.6	6.4	8.7	1,300	1,400	1,900
24	6.1	7.0	9.5	1,400	1,600	2,100
26	6.7	7.6	10.3	1,500	1,700	2,300
28	7.2	8.2	11.1	1,600	1,800	2,500
30	7.7	8.8	11.9	1,700	1,900	2,600
32	8.2	9.4	12.7	1,800	2,100	2,800
34	8.7	9.9	13.5	1,900	2,200	3,000
36	9.2	10.5	14.3	2,000	2,300	3,200
38	9.7	11.1	15.0	2,200	2,500	3,300
40	10.2	11.7	15.8	2,300	2,600	3,500

The maximum rates are recommended to prevent buildup of the dissolved salts in soils and keep the soil ECe at or below 4 mmho/cm. Determine the average annual precipitation plus irrigation in inches. Identify the soil texture of the field receiving manure. Determine the maximum annual manure application rate in "tons per acre" or "gallons per acre".

Reference: Guidelines for Applying Beef Feedlot Manure to Fields, Pub. C-502, Kansas State Univ., 1974.