



CUMBERLAND VALLEY ANALYTICAL SERVICES

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

Farm: **WEAVER FALLS**
Desc: **CORN SILAGE**
Submitter: **JONES, JOHN**
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Lab ID: **12345 091**
Sampled: **09/07/2019**
Arrived: **09/08/2019**
Completed: **09/09/2019**
Reported: **09/09/2019**

Penn State Particle Size Evaluation

	PROPORTION REMAINING ON EACH SIEVE	CUMULATIVE PERCENTAGE UNDERSIZED (% Under each sieve)
Particle Size Analysis	Upper Sieve	12.0
	Middle Sieve	70.7
	Lower Sieve	16.7
	Bottom Pan	0.5
	Average Particle Size (in)	0.43
	Standard Deviation (in)	0.072
	peNDF, %DM **	39.5
	peNDF, %NDF	99.5

Particle Size Recommendation

SCREEN	PORE SIZE (INCHES)	PARTICLE SIZE (INCHES)	CORN SILAGE %	HAYLAGE %	TMR %
Upper Sieve	0.75	> 0.75	3 to 8	10 to 20	2 to 8
Middle Sieve	0.31	0.30 to 0.75	45 to 65	45 to 75	30 to 50
Lower Sieve	0.05*	0.07 to 0.31	30 to 40	20 to 30	30 to 50
Bottom Pan		< 0.07	< 5	< 5	< 20

** Evaluation of an on-farm tool to estimate physically effective neutral detergent fiber of forages and total mixed rations. W375 S. E. Schuling, E. J. Staudinger, J. A. Rortvedt, P. M. Windschitl, G. L. Golombeski, & K. W. Cotanch

* Pores are square, so largest opening is the diagonal, which is 0.07 inches. This is the reason the largest particles that can pass through the Lower Sieve are 0.07 inches in length.

From "Evaluating particle size of forages and TMRs using the New Penn State Forage Particle Separator", DAS 02-42, Jud Heinrichs and Paul Kononoff, Dept. of Dairy and Animal Science, Pennsylvania State University, University Park, PA.

Penn State Extension Publication



Additional sample information, source and lab pictures



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