

# Interpretation of Corn Silage Processing Score (CSPS)

**Dry Matter and Moisture:** Determined by conventional laboratory methods. Provides the Dry Matter and Moisture of the entire sample prior to the vertical shaking method.

**Starch:** The starch content of the entire sample determined by conventional laboratory methods.

**Particle Size Dry Matter Distribution prior to grinding:** This determines the physical characteristics of the sample prior to grinding.

**Coarse Fraction > 4.75mm:** The fiber in particles greater than 4.75mm will stimulate chewing activity. The starch in the particles will be poorly digested. The rate of digestion will be slow and it may escape the rumen in unchewed particles.

**Fine Fraction < 1.18mm:** Fiber in particles less than 1.18mm may not contribute to chewing activity or physical effectiveness. Starch in the fine particles may ferment very rapidly in the rumen and cause problems when rations with low effective fiber are fed. Knowledge of starch and fiber in small particles may be a useful tool in solving some feeding problems.

**Percentage of starch passing through the coarse screens (Adequately processed kernels):** Expressed as a percent of total starch in the sample. Analyzing the starch in particles retained on the 4.75 sieve and larger as a percentage of total starch provides a quantitative index of kernel processing in corn silage. The following guidelines were developed by Dr. Mertens, U.S. Dairy Forage Research Center.

<u>Percentage of starch passing through the coarse screen</u>	<u>Ranking</u>
Greater than 70%	Optimum
50% to 70%	Average
Less than 50%	Inadequately processed