

Length of Cut - What is the Right Length?

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The answer to this question is the joint decision of the nutritionist, the dairy farmer, and the person chopping the crop. However, there are many factors to consider such as crop genetics, growing conditions, harvest-time conditions, moisture, inoculant use, packing density, and other ration components.

For corn silage, the desired theoretical length of cut and level of kernel processing both have an impact on the actual length of cut for the forage coming out of the spout. If the desired mean particle length is an inch and the kernel processor roll gap set to 0.020 of an inch, what do you think is likely to happen to the mean particle length? The desired longer particle size from the cutterhead is re-sized by the kernel processor. A narrow kernel processor gap will achieve complete processing of kernels and cob, but at the loss of length of cut. Does the benefit outweigh the cost?

There are some other factors to consider when chopping with a long length of cut and narrow kernel processor gap. These would include wear on the kernel processor rolls and drive belts, horsepower requirement to run the kernel processor, and restricted field capacity.

When harvesting corn silage, the normal recommendation is to start with a wider kernel processor roll gap and reduce the gap to the point that the processing meets the desires of the parties involved remembering greater processing means lower mean particle length. Also, perform spot-checks throughout the day to check the crop moisture, mean particle length at the bunker silo, and kernel processing results. Keep in mind that crop varieties and genetics, crop moisture, sharpness of the knives, proper adjustment of the shearbar, and wear on the kernel processor rolls all have their effects on the length of cut and kernel processing. Making proper in-field adjustments will result in the best possible field efficiency, improved field capacity, and higher quality forage. It is possible there are certain field conditions when a shorter length of cut with a wider roll gap on the kernel processor will produce forage that is more desirable.