# Equipment Stategies to Speed Hay and Haylage Drying

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Any adjustment on the mower-conditioner or other steps to reduce the drying time will increase the probability for producing high quality forage. Many of these adjustments, such as swath width and conditioning roll spacing, are easy to complete and require very little operator time.

Two types of conditioning systems used on mower-conditioners are rolls and impellers. The conditioning roll clearance and pressure must be adjusted to ensure the stems are cracked which increases their drying rate. Since the stems dry slower than the leaves, the stem cracking is the important indicator of proper conditioning. At least 90% of the stems should be cracked. Another method of checking roll adjustment is to measure the clearance, which should be between 1/16 and 3/32". When the crop is high yielding and has thick stems, the 3/32" adjustment would be most appropriate. For low yield cuttings and fine stems, the 1/16" should be considered.

Machine operators should also check the operator's manual for proper adjustment of the conditioning rolls. In one case, the manufacturer recommends adjusting the clearance with the machine operating at slow PTO speed while the tractor and machine are stationary. They suggest reducing the roll clearance until vibration and/or noise occur and then increasing the roll spacing to a specified point beyond where vibration and/or noise are eliminated. Most machines will have an adjustment at each end of the rolls.

The roll pressure also needs to be sufficient to crack the stems. For high yielding crops, creating a thicker mat of forage moving through the rolls, higher pressures are required. Excessive pressure can cause undesirable leaf loss. Spring tension is adjusted to change roll pressure.

On impeller conditioning systems, conditioning is due to the rubbing or abrasion caused by the impeller fingers. Most of these machines have an adjustable deflector above the impeller which influences the degree of contact between the forage and impeller. When adjusting the deflector down, the degree of forage conditioning will increase. Nearly all the harvested stems should exhibit some mechanical abrasion.

Placing the crop in a swath as wide as possible will take advantage of the sun to dry the crop rapidly. For a 12' cutting width, laying the crop in a 9' swath will reduce the drying time by about 35% compared to a 6' swath. Under typical Wisconsin weather, drying time can be reduced up to 6 hours. Nearly all mower-conditioners have adjustable swath forming shields at the rear of the machine for this easy adjustment. Also the machine must be operated so that the swath is uniform. The operator can minimize starting and stopping by following a good maintenance program.

These mower-conditioner adjustments will reduce the risk of poor quality forage. Any steps that reduce the drying time are very important to harvesting high quality forages.