Predicting Alfalfa Harvest
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Timing of first harvest is critical for producers desiring high quality alfalfa. Traditionally, alfalfa has been harvested at a certain stage of maturity or by calendar date. Variations in weather and growth patterns from year to year make these methods unreliable.

Since the primary factor affecting alfalfa quality is maturity, the best guide is to harvest by quality. To help alfalfa producers monitor quality and plant growth and decide the date of first cutting, University of Illinois Extension is again conducting an Alfalfa Watch project across the state. From now until early June, progress reports on alfalfa plant development and nutrient quality indicators will be reported twice weekly on this web site http://peaq.outreach.uiuc.edu. Reports will also be available at local Extension offices and various media.

What is the Alfalfa Watch project? It uses a method of estimating pre-harvest quality in the field called Predictive Equations of Alfalfa Quality (PEAQ). PEAQ consists of predicting fiber and relative feed value (RFV) based on the height of the tallest stem and stage of plant maturity within a sampling area. This method, developed by the University of Wisconsin, has been used in Illinois for many years and it’s a reliable guide to help producers determine the optimum harvest date for first cutting.

At the PEAQ web site, one can learn how to calculate PEAQ, enter and track your own PEAQ values, view PEAQ values for Illinois by region and by county, and see other information.

Since about 15 RFV units are lost during harvest, alfalfa needs to be cut at 165 to 170 RFV using PEAQ to have 150 RFV of harvested forage. A change of 3 to 5 points of RFV per day in the standing forage has been noted, so adjustments need to be made for total harvesting time. This adjustment means that alfalfa may have to be harvested prior to the 165 to 170 RFV mentioned above.

PEAQ is not designed to balance rations. It does not account for quality changes due to wilting, harvesting, and storage. The procedure is most accurate for good stands of pure alfalfa in healthy condition. Subsequent cuttings for high quality can be made by either stage of maturity or harvest interval.

Many alfalfa seed companies have a PEAQ measuring stick that will indicate the RFV of standing alfalfa based on the height and stage of maturity. Finally, producers need to balance the PEAQ technique with short-time weather forecasts.

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