Inside the ZONE™

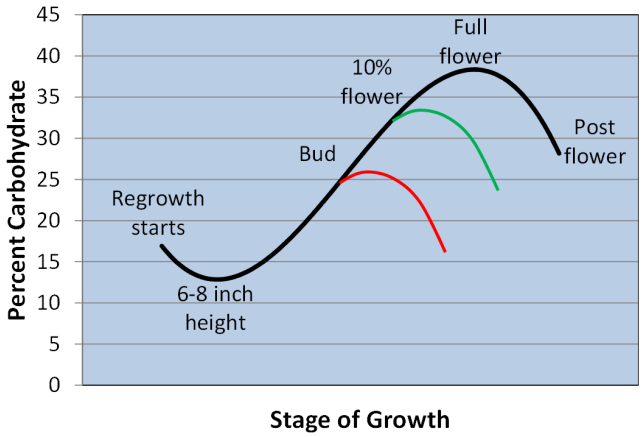
Strategies for Managing Alfalfa Harvest in 2013

Tough Choices for Forage

Alfalfa went through a tough winter in the upper Midwest and many fields experienced moderate to extreme winter damage. In addition, the drought of 2012 has left many dairy operations with short feed inventories. Finally, the wet, cool spring has delayed field operations in many areas. All of this means that there are some difficult choices that dairy farmers must make this season about how to manage alfalfa yield, quality and plant health.

Early Alfalfa Harvest versus Plant Productivity

Alfalfa root carbohydrate reserves of even the best fields have been depleted due to a number of factors including an extended winter period and now a cool wet spring. Regrowth began very slowly and wet, cool, cloudy weather has meant that carbohydrate production in the plant has been more limited.



Cutting alfalfa at bud stage may not be the best choice for this season since it will further limit the production of carbohydrates for root and crown storage. Sticking with a bud stage harvest schedule will result in more stress and a greater risk for stand decline or loss through the season.

Adjusting cutting schedule to an early flower, three-cut system will help build greater root carbohydrate reserves and help maintain better stand productivity through the season.

University studies show that alfalfa yields can increase 100-200 lbs of DM/ac per day during the time from bud stage to full flower. A delay of five days can result in 0.25-0.5 tons more per acre. A three-cut, early-flower harvest system can yield as much as 15-20 percent more tons than a four-cut, bud stage system.

Delayed Harvest and Alfalfa Quality

Alfalfa forage quality will decline with advancing maturity. Studies show that for each day of delay in harvest after bud stage, Relative Feed Quality (RFQ) declines 4-5 points (NDFd declines 0.5 units per day).

Weather can have a significant influence on the amount of fiber produced in the alfalfa plant and the fiber digestibility (NDFd) of the plant material. Cool, wet growing conditions during long daylength times of the year help to minimize lignification and maximize fiber digestibility of alfalfa. Thus when harvest is delayed until early flower the quality penalty will not be as great when growing conditions have been cool and wet. During summer growth, higher temperatures will reduce forage quality faster and it will be important to monitor stage of development more closely.

Alfalfa Quality and Pioneer® Inoculant 11AFT

A unique opportunity exists to manage forage quality through the use of 11AFT inoculant. This unique *L. buchneri* inoculant produces an enzyme that breaks lignin and cellulose/hemi-cellulose bonds, allowing for more rapid and more complete use of cellulose/hemi-cellulose energy when exposed to rumen bacteria in the dairy cow. The result is other diet energy sources such as protein and corn grain can be reduced .

Since delayed harvest of alfalfa results in more indigestible fiber, gaining access to more energy from that fiber using 11AFT is a great tool to manage for higher feed efficiency and productivity with this type of forage. When grass-alfalfa mixtures (>40-50 percent grass) are harvested, use Pioneer® 11GFT or 11G22 for best results.

Delayed alfalfa harvest from bud stage to early-mid flower can help produce more tons per acre, encourage better plant health and quality can be managed with 11AFT inoculant.