Benefiting from the Power of First Cut; Have a Game Plan for Weeds

Managing that all-important first cut requires good agronomic practices and timely harvest. In recent years, many farms have discovered the feeding power of first cut forage. Cut at the optimum time, first cut forage generally has greater digestibility and intake than second cut.

Growing under cooler conditions, forage grasses and legumes mature slower, have less cell wall and higher amounts of soluble sugars. The optimal growing temperature for most of our forage plants is thought to be near 20 0C. Under warmer conditions, such as in mid-summer, the plants produce more cell wall and have less digestibility and lower intake potential.

First cut harvest should be timed to maximize yield and quality. The harvest window to get the maximum yield of the highest quality for any given forage species is about six to eight days. Completing the harvest within the harvest window is the most important factor affecting first cut quality. Local research shows that in first cut forage, digestible energy declines at about 0.5 per cent per day while crude protein declines at 0.25 per cent per day. Though protein is important, digestible energy is the single most important index of quality in forage. A high producing dairy cow needs ten times more energy than protein. Not only do energy and crude protein decline each day harvest is delayed, but intake also drops by about 0.5 per cent per day. The combined effect of lower digestibility and lower intake decreases animal productivity and increases supplemental feed costs.

For optimum yield and quality, first cut grass should be harvested in the boot stage when the ADF value is 28-32 per cent and the NDF value is 50-58 per cent. When ADF and NDF exceed these values, forage intake and animal performance generally decline.

Based on maturity, harvest sequence for grasses should be orchardgrass first, followed by bromegrass, meadow fescue, reed cannarygrass and timothy. For legume stands, such as alfalfa, harvest should be done in the mid-to-late bud stage. Cutting alfalfa at this stage will result in three cuts per season in many areas of the Maritimes.

Increases in quality, as a result of a three-cut system, must be balanced against possible reductions in stand longevity. As a general rule, try to harvest the youngest legume fields first and the oldest fields last. This will help slow the spread of plant diseases and keep stands healthier.

Lastly, leave a good stubble height in the field. Cutting close might increase yields, but it lowers quality significantly and reduces the plant's regrowth abilities. A good stubble height for most forage species is 2 inches (5cm).

Have a Game Plan for Weeds

With higher production costs (i.e. fuel and fertilizer) and a series of dry summers, weed control in field crops is more critical than ever. Before you seed that corn, soybean or grain crop, it's important to know what weed control strategy you'll use.

It's good to 'brush up' on herbicide effectiveness, product rates and timing by reviewing 'Publication 75, Ontario's Guide to Weed Control 2001', or asking for a product label from your crop supplier. You can obtain a copy of the guide by calling (519) 826-3700 or by e-mailing products@omafra.gov.on.ca

In corn and soybeans, the majority of our growers use pre-emergence timings that are applied shortly after seeding, before the crop emerges. This pre-emerge timing usually provides better weed control and crop tolerance. It also means you don't need to be spending time spraying later, when forages need to be harvested.

For corn and soybeans, most growers use a 'broad spectrum' herbicide approach that will control both annual grasses and broadleaf weeds. If you have some weeds that are particularly difficult to control, such as fall panicum, ragweed and velvetleaf, then your herbicide strategy may need to be somewhat modified. With new herbicides such as Converge (for corn) or Axiom (corn and soybeans) and Roundup Ready Corn and Soybeans, it's important to have a clear understanding of where these products can be used and to assess their performance on a limited acreage.

In spring grain crops, growers are basically looking at post-emerge herbicide timing to control broadleaf weeds. The main decision here is whether to use a 'broad spectrum' product or a cheaper, narrow focus herbicide; this is dependent on accurate weed identification. Another key consideration is the timing of the post-emerge herbicide application on grain crops. This is a balance between 1) having the majority of the weeds emerged or 2) not spraying too late, from a crop safety/yield reduction, due to weed competition.

Regarding direct seeded forages, or underseeded grain crops, post emerge weed control and herbicide knowledge again are critical in knowing when and what to apply so those fragile alfalfa and clover seedlings are not injured.

Proper weed control pays big dividends. Rely on past weed control experiences, product information, crop suppliers and agronomists to help you formulate the best weed control game plan.

For more information, please contact:

Jack VanRoestel, Forage Specialist
(902) 678-7722

Bill Thomas, Forage Specialist
(902) 896-0277