Get to the Root of Your Alfalfa's Potential

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Over the past two years farmers have experienced increased yield potential and higher quality forage as a result of planting Genuity® Roundup Ready® alfalfa. While seed plays a major role in crop success, effective alfalfa management practices are vital to helping the crop reach its full potential.

Go Beneath the Soil to Determine Rotation

The first step for establishing a management plan is to look at the alfalfa rotation. As a rule of thumb, stems are used to evaluate current yield potential, while roots are critical for determining future yield potential. Digging roots and examining the portion of the alfalfa plant underground is known as "reading the stand." This plant evaluation method provides valuable insights on current and future stand productivity to help make accurate decisions on when to rotate stands.

Our CROPLAN® team utilizes a unique stand assessment process that includes determining a numeric plant health score and stand density measurement for each field.

To determine plant score, start by randomly digging up a minimum of 10 plants throughout the field. Split the crowns and visually assess each plant. Plants are scored on a 0-5 scale, with 0 representing a healthy plant and 5 indicating the plant is dead. After scoring each plant, calculate the average for the field. An average score of greater than 2 from 10-20 specimens across the field means you should consider rotating to another crop that will benefit from alfalfa's nitrogen credit.

Monitoring Density

Plant and stem density are the other key components for making smart decisions about alfalfa rotation. When determining plant density, look at how many plants are in a square foot. A 1' x 1' square or a hoop that covers the same surface area are commonly used to help find this figure.

When seeding occurs, there are typically 25-30 plants (or more) per square foot, and over time that declines considerably. For instance, alfalfa stands in their third year typically contain 4-6 plants per square foot. However, fields with low plant density can still produce successful yields. That is why we look at stem density. Measuring stem density involves counting the number of stems on each of the plants contained within the border of the density measurement tool. Use this figure to determine whether stem density is limiting yield, and in turn you will have specific data to take into consideration for your rotation.

There are three stem-count ranges to keep in mind when looking at stem density. If the count is above 55 stems per square foot, density is not limiting yield. Some yield reduction can be expected when there are 40-55 stems per square foot. When stem counts drop to 39 or below, you should consider replacing the stand.

Management Strategies for Yield & Profit Potential

If your decision to keep the stand or rotate the field leads you to planting a new alfalfa crop, there are proven strategies to reap greater yields and higher payouts. The following are approaches specific to Genuity® Roundup Ready® alfalfa:

- **Direct Seeding in Spring**. Direct-seeding can deliver thicker alfalfa stands more quickly and provide better quality forage. One option is not to include oats when planting the crop. For this approach, it is important to apply glyphosate 30 days after seeding, or sooner, if it is warmer than normal. This will remove weeds or remaining cover crop and will eliminate null plants. When harvesting, the first crop of newly seeded alfalfa can be harvested around 60 days after planting, and the second and following crops can be harvested every 30-35 days.
- **Oat Cover Crop & Oat Cleanup.** Farmers with highly erodible land may want to consider planting oats along with RR alfalfa, as the seedlings will provide immediate soil cover for the alfalfa. With this approach, glyphosate should be applied when the oats are between 6-12 inches tall to allow the dead oats to control erosion. Harvest should take place approximately 70-80 days after seeding with following harvests occurring every 30-35 days. Farmers should consider applying glyphosate to oat stubble approximately 10-15 days after harvest on their most erodible soils. With this approach, weed-free feed can be harvested 30-40 days after the application.
- **Late Summer Seeding.** Another option is to seed alfalfa after winter wheat or other late summer harvested crops. In the Midwest, it should be planted in August. In this scenario, it's a good practice to apply glyphosate 10-15 days after weeds and volunteer plants emerge. The result will be a weed-free crop that will be ready to harvest in spring.

Planting Success

This year, CROPLAN® seed released six new alfalfa varieties that offer exceptional yield potential and high digestibility. This expanded alfalfa line includes new solutions for potential yield-robbing insects and diseases and helps alfalfa farmers maximize results. Each of these new varieties can be ordered now and planted in spring 2013. Below are the varieties that are tailored to the Midwest.

- **RR Stratica** – One of the highest yielding FD 4 varieties in the marketplace. Provides an excellent choice for haylage or aggressive hay production in the upper Midwest and outstanding disease resistance for the Midwest and East.
- **RR Presteez** – Ideally suited to the upper Midwest and West for 3-4 cut, dairy-quality baled hay, combining optimum yield and digestibility.
- **RR AphaTron** – Offers an excellent disease resistance package for challenges faced in the upper Midwest and East, including aphanomyces root rot disease race 1 and 2.
- **RR Tonnica** – New FD 5 with RR technology, takes full advantage of the growing season in the Central Plains, High Plains, and southern Midwest, allowing farmers to harvest maximum yields in 5 or 6 cuttings.

For more information about the new CROPLAN® alfalfa seed varieties and pricing, visit croplan.com or contact your WinField representative.