

Forage Advisor

TerraLink Horticulture Inc.

Progressive
Dairy

Spring 2015

The Science of Growing

Applied Science to Improve Growth

The following applies to all plants and crops including food crops, turf, trees or ornamentals.

Stabilizing nitrogen is something every grower needs to know about. It is the key to getting the best results for your fertilizer dollars and taking care of some key environmental factors all growers need to deal with.

Stabilized N is available, inexpensive and is easy to use in your fertilizer program. Stabilized N is a cornerstone product that will help you reduce the environmental impact of your crop production operations.

In order to achieve environmental impact goals for nutrients, the Canadian Fertilizer Institute has developed a responsible use for agriculture initiative called **The 4 R's**. **The 4 R's** are about using the right source, **the right rate**, at **the right time** and in **the right place**. The fertilizer industry needs to meet important goals to reduce environmental impact and reduce waste. **The 4 R's** and Stabilized N will help us get there.

STABILIZED N

Using Stabilized N saves money. Stabilized N is a better source of nitrogen (N) for all food crops, ornamentals, trees and turf.

Stabilized N feeds crops with Ammonia-N, the preferred source for healthy plant growth. Ammonia-N is much less subject to N losses compared to Nitrate-N. Both of these factors combine to save you money and reduce nitrogen pollution of our water and air.

TerraLink's Stabilized N program has the option of 2 inhibitors. Both are used to get the most value.

1. Urease Inhibitor: this product greatly reduces N evaporation losses when urea undergoes its

natural conversion from urea to ammonia. You can't eliminate this natural process but you can slow it down and seriously reduce evaporation loss.

2. Nitrification Inhibitor: holds the nitrogen in the ammonia form thereby slowing its natural conversion to nitrate-N. Plants do better when they uptake ammonia as needed on demand and this inhibitor helps make that happen. The benefits are:
 - Healthier stable plant growth and less surge growth. (Surge growth is one of the root causes of plant health problems.
 - Leaching of nitrates is greatly reduced seeing the N is held in ammonia form which doesn't leach easily.
 - Denitrification (evaporation of N when soils are saturated with water) is also greatly reduced as ammonia-N is not subject to this problem like nitrate-N is.

TerraLink's Stabilized-N program provides you with a low cost way to grow better crops, grow them safely and reduce environmental impact.

Stabilized-N is a TerraLink partner product of the 4 R's initiative and will be a feature part of our program for years to come.

MAKE PHOSPHATE AVAIL®-ABLE

The Phosphate Challenge – to make phosphate available to plants in sufficient quantities when they need it but not so much that we over apply and create environmental impact.

Unfortunately phosphate naturally gets tied up in soil binding with various elements to become unavailable to plants. Avail® is a product that slows this process down to the point that crops get improved use of fertilizer phosphate for a longer period of time before it becomes

tied up. TerraLink's Avail® treated 11-52-0 (MAP) and 0-45-0 (TSP) provide improved P availability to the plant and reduced risk of losses in adverse environmental conditions.

Using Avail® is a key tool in achieving the fertilizer industry's 4 R's initiative. Avail® makes your phosphate a better source of available P, it makes the timing factor less critical if that is an issue and it has a positive effect of fertilizer placement factors.

When using Avail® treated MAP and TSP the grower can take one of two approaches:

1. Reduce phosphate application rates and still get the same effect because Avail® reduces the tie-up factor. This is advised for soils well supplied with phosphate. The crop gets the same 'net-benefit' of available phosphate but less phosphate is put into the environment.
2. Keep phosphate application rates the same and get more available phosphate to the crop. This is advised for soils not well supplied with phosphate or crops that tend to have low phosphate levels (use tissue/leaf tests to determine this).

In either case please do not over apply phosphates which will contribute to high phosphate levels in ground and surface water. Always soil sample, analyze for available P and obtain a recommendation for how much to apply. Don't forget that manure contributes nutrients like phosphorus and potassium and needs to be taken into account.

Benefits of Avail®:

- Better plant availability at an economic price.
- Option of reduced phosphate application if desired.
- Reduction of phosphate build-up to soils and waterways.

Avail®-treated MAP and TSP are available from TerraLink and are becoming standard treatments in many fertilizer blends.

Avail® is a TerraLink partner product of the 4 R's initiative.

Avail® is a registered trademark of Specialty Fertilizer Products (SFP), LLC.



Rooted in your community.

TerraLink

ARE YOU A 4 R'S GROWER?

The Canadian fertilizer industry wants to promote Best Management Practices (BMP) for fertilizer use. Canadian farmers are already moving to the forefront of BMP in many areas of farming and fertilizer use needs to be one of them. The Canadian Fertilizer Institute is promoting BMP by adopting the 4R's program:

- Choose the RIGHT SOURCE of nutrients. There are options, use the right ones.
- Choose the RIGHT RATE. Apply only what is needed.
- Choose the RIGHT TIMING. Make applications only when the crop needs it.
- Choose the RIGHT PLACE. Placement of fertilizer is a key factor.

TerraLink has many products that use new technology to hold nutrients in the right form (mainly N and P products for fertilizer blending and homogenous coated products for nursery and turf). These products take away many of the inconvenience factors of the timing of application issue and also make placement easier. Ask our technical sales staff for help making product and Application Rate choices. Join the Canadian 4R's initiative.

The 4 R's is an initiative of the Canadian Fertilizer Institute. Go to www.cfi.ca for more information.

Now Available

Bunk Fresh and Silage Plastics

We are proud to introduce TerraLink's new line of products to assist dairymen and ranchers in silage storage, under the name Bunk Fresh. Bunk Fresh Silage Plastics come in various sizes and thicknesses and are available for many different uses.

Bunk Fresh Plastic Bunker Cover, 6 ml B/W Roll

- Improved construction featuring 6 ml thickness and co-extruded black/white for reflective yet anti-light penetration qualities.
- Excellent UV resistance for possible multiple uses
- Protects fodder by eliminating exposure to light, water and air
- Superior mechanical properties and strong resistance to impact and tearing. Thickness: 100 - 200 um
- Various sizes available.

Bunk Fresh Side Wall Liner

- For a clean side wall surface between bunker wall and silage, resulting in less feed spoilage.
- Size: 40 x 100 ft.

Bunk Fresh O₂ Barrier Film (Roll)

- Features co-extruded 5-layer blown film up to 50 m. Oxygen barrier designed to improve freshness in silage by reducing oxygen penetration
- Colour: clear
- Various sizes available.

Bunk Fresh UV Protective Cover Tarps

- Tough poly-ethylene woven design to protect fodder by providing an extra layer of protection from mechanical damage.
- Excellent UV resistance for multiple uses.
- Superior mechanical properties and strong resistance to impact and tearing.
- Width from 20 to 55 ft in 5 ft increments; various sizes available.

Bunk Fresh Bunker Bags

- Designed to protect the seal by weighing down protective layers like Oxygen Barrier Film, Plastic bunker Cover or UV Protective Tarps.
- Replaces tires or other old-fashioned ways to weigh down a cover.
- Long and narrow shape, good weight, easy to handle.
- Tough poly-ethylene material for multi-year use.
- Available pre-filled with granular limestone, or sold empty so you can fill them yourself, in bundles of 50.

Silage Bale Wrap

- Silage Bale Wrap is a multi-layered, co-extruded, high quality film.
- Superior stretch for round and square bales.
- UV protection for 12 months.
- High adhesive strength. Tried and tested performance.
- Two variations available.

Silage Bale Net

- TerraLink Silage Bale Net is designed for standard bale wrapping, where nets are required prior to bale wrap application.
- Size: 48" x 9842 ft.
- Other sizes available upon request.

NRF Bale Wrap (Net Wrap Film)

New product and program - more information coming soon. This product is designed for use in all new McHale Balers. Co-extruded bale net and bale wrap combined as one.

More TerraLink Products...

See our line of Freshstall Barn and Manure Additives and Freshstall Animal Health Products. Contact your sales representative today for more information on these and other TerraLink products.

Soil Conditioning

Custom Spreading in the Fraser Valley

Because of our high rainfall in the Fraser Valley, native soils become acidic over time. Most crops prefer a higher pH range so the soil must be adjusted with a limestone. The soil pH level affects how well nutrients are taken up by plants. When soil pH is not in an optimum range for nutrient uptake some of the money spent on fertilizer will be wasted. For most crops, an application of 1 - 2 tonnes per acre will bring soil pH into an optimum range between pH 5.5 - 6.5.

Start with a soil test, which can be done quickly and conveniently at TerraLink's Plant Science Lab at our Abbotsford location. The test results will help pinpoint how much limestone is required.

Note: Minimum order 20 tonnes per location for most Fraser Valley areas.

Time to Order

Seed Still Available

Corn Seed:

With the exception of our Mycogen BMR Corn seed that is now sold out for the 2015 season, TerraLink still has a good variety of corn seed suited to our Fraser Valley climates and heat units.

- Hyland HL 3085 - 2275 CHU Relative Maturity 79
- Hyland HL 3093 - 2300 CHU Relative Maturity 78
- Hyland HL SR22 - 2400-2650 CHU
- Hyland HL SR35 - 2500-2750 CHU
- Hyland HLR 219 - 2400 CHU
- Hyland HLSR 011 - 2825 CHU

A TSA# is needed to purchase glyphosate tolerant corn.

Richardson Seed Forage Seed Mixes and Custom Seed Blend suitable for south coastal planting:

General Pasture; General Pasture with Clover; Horse & Sheep Pasture; Wetland Pasture; Orchardgrass Blend; Orchardgrass / Tall Fescue Blend; Premium Tall Fescue; Premium Ryegrass; Hay Baler.

Please contact us for more information about seed and custom seed blends.