

Forage Advisor

A TerraLink Technical Newsletter

Agronomic Tips

Production Factors for Forage Corn

Based on an article in a recent edition of *Top Crop Manager**, we summarize here some factors to keep in mind when growing forage corn.

Nutrition

- As for all crops, get a soil test done well ahead of time. It should go without saying that you can save money by applying only what you need.
- pH is as critical for an annual forage corn crop as for perennial forage grass stands. When your soil acidity is not in an optimum range, some of the fertilizer you spend money on will be wasted.
- If you have a lack of potash or magnesium, these nutrients can be applied well ahead of planting and disced in. These nutrients don't leach as much as, say, nitrogen.
- At planting time, a starter fertilizer with phosphate is the most efficient way to apply this nutrient. It is usually accompanied by a little nitrogen, as well as zinc and boron.
- If necessary, sidedress nitrogen before the knee-high stage.

Stand Establishment

An early stand means high vigour. Do not plant too early. If you do, you risk the emergence of weak plants, which are more prone to root and crown pathogens. The minimum soil temperature should be no less than 10° C. Plant seed no deeper than 1.5 inches.

Weed Control

In our experience, way too many producers try to skimp on weed control. Corn that is competing with weeds when young will not recover to produce a maximum crop. When weeds get past 4 inches, your yield will be definitely reduced. Don't let bad weather cause you to skip crucial weed control opportunities. Plan ahead. Start with pre-planting incorporated herbicides if they are available. Follow with a "plan B" pre-emergence application. Finally you must assume you will be applying post-emergence herbicides. If necessary, do all three.

Insects

Gone are the days when we didn't have to worry about bugs. If you have to apply insecticides to your stand after knee-high, it is better to achieve control than worry about losing some plants by "bulldozing" with your spray rig.

- Wireworm.** You have to know if you will expect wireworm; there is not much excuse not to have done your homework. Rotating will make some difference. Definitely do not grow corn after corn. If you think you will have some, use Force 3G at planting.
- Western Corn Rootworm.** We avoided this pest for many years, but now it is definitely here. You must plan for it. Ask your seed supplier if "stacked" varieties are available in the heat unit range for your area. Also, ask your seed supplier if your variety has been treated at source for rootworm.
- Other lepidopterans.** In 2017 some growers had a problem with Armyworm. It may have been a fluke – it definitely wasn't expected, and may have acciden-

tally been brought in as a "hitchhiker". In any case, until you know better, you have to, again, assume you will have to deal with it. Again, there are insecticides you can use to deal with it.

Reference:

***Agronomy Tips for New Corn Growers**, by Bruce Barker, in *Top Crop Manager*, December 2017.

New Team Member

Welcome to Fred Meyerink



After graduating, Fred started a job at Gracemar Farms. Along with the skills to communicate with local farmers, they taught him the values of hard work and how much relationships and honesty matter in the dairy industry.

After five years on the farm, Fred decided it was time to depart from Gracemar to seek out new growth opportunities. Soon after he was hired by Clearbrook Grain and Milling in the sales department. Working alongside a great team at Clearbrook for close to 6 years lead him to where he is now: excited to be part of the Terralink team!

Plant Nutrition in Corn

Potassium Deficiency

This seems an appropriate time to talk about potassium deficiency in silage corn. Potassium is a macro nutrient, required by all plants in considerable amounts, along with the other two macro nutrients, nitrogen and phosphorus. While we know that, in general, potassium is important to photosynthesis, strong stems, disease resistance and fruit quality, in silage or field corn, potassium is required to produce tall plants with large leaves, prompt tasseling and silking, and to minimize lodging. How do we recognize whether our corn is deficient in potassium?

There are several symptoms to indicate a potassium deficiency. The best known symptom is a “scorched” appearance of the outer edges of leaves, especially the oldest leaves. Meanwhile, the midrib, or leaf center, remains green. This is a typical symptom in grassy plants.

As mentioned above, sufficient potassium results in nice, large leaves. When potassium is deficient, leaves can be considerably smaller. Hard to visualize, unless you are making a side-by-side comparison with non-potassium deficient plants.

Slow development is a noticeable symptom of potassium deficiency in silage corn. It can result in delayed tasseling and silking. Most farmers choose varieties with the highest possible heat units; as the longer the heat units, generally the greater the yield. These varieties push the boundaries, maturing just in time at the end of the year. That means the highest quality levels and the highest yield. If development is delayed, due to potassium deficiency or other reasons, you won't obtain the maximum tonnage or quality from your corn.

Another symptom of potassium deficiency is early and increased lodging. Work done by the International Plant Nutrition Institute (IPNI) has shown that low potassium is a cause of increased lodging for a couple of reasons. Stalk weakness and breakage is related to a high N:K concentration in the stalk. This can commonly occur if producers over-fertilize with nitrogen without paying enough attention to soil tests that might show low potassium. The result is a breakdown of the pith of the brace roots. This weakens the plant, and over it goes in breezy conditions. Also,

low potassium has been shown to increase the severity of fungal disease which can also cause lodging.

Scorching of the leaf margins is usually the best-known and the first indication of potassium deficiency in silage corn. You can't easily increase potassium after the symptoms have begun to appear. The best remedy is to plan well, get a soil test done early, and make sure enough potash fertilizer is applied prior to planting.

References:

Visual Indicators of Potassium Deficiency in Corn.
Murrell, T. S. *Better Crops*, Vol. 94 (2010, No. 1).
Soil Fertility Manual. IPNI, 2006.

Safety First

Spraying Safety Gear

TerraLink is the place to go for safety gear,. Come into the Abbotsford store on 464 Riverside Road, or the Delta store on 4119 – 40th Street, where you can shop our huge selection of respirators, spray suits, gloves, ear and eye protection.

Respirators & Cartridges:

We now supply the Honeywell brand of respirators. We stock half-face masks, full face masks, dust masks, as well as cartridges and filters for all sizes.

Safety Apparel:

Spraysuits are stocked in all sizes. New this spring is a high-quality product that is resistant to chemicals, yet breathable. It has larger shoulders and armpits to provide more movement for you underneath. It also has no seams in the armpit and shoulder, to avoid the weak spots that are normally the places spraysuits might come apart.

We have all sizes of nitrile disposable chemical-resistant gloves, as well as a wide selection of sturdy workgloves.

Eyes & Ears:

TerraLink takes pride in stocking many different types and sizes of safety glasses and goggles. For the ears, we have earplugs and earmuffs, again to fit anyone. Just ask!



Laboratory Analysis

Enough Nitrogen? How to Find Out

Before your corn grows too high (ie; past the “knee high” stage), you can determine exactly how much nitrogen your corn needs from this point on to the end of the season. The Pre-Sidedress Nitrate Test (PSNT) is used to give you an indication of whether or not to apply nitrogen at knee-high stage. The test can be done very quickly at the Plant Science Lab at TerraLink in Abbotsford. Samples should be taken when the corn is 8 – 10” in height. The results give you rapid accurate information about the nitrate status of your corn land so you can make economic decisions – to sidedress or not and how much?

Plan ahead if you need your rep to take samples. Or, bring your own soil samples in to the office in Abbotsford. We'll have your result within hours.