

# **Green Care Turf Management** *We Like It Green*

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## **Break the Spring Seeding Cycle:**

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As winter breaks and temperatures warm up, many spend some time outdoors, working in the lawn and garden areas, enjoying the sun and making a list of things to get done this year. As we look at the lawn we often see thin or bare areas, weedy areas, and parts of the lawn we just wish looked better. We get excited as the days get warmer and we decide, this year I am going to fix this lawn up. A trip to the store follows bringing home grass seed, fertilizer, maybe lime, and perhaps even straw for the more ambitious of us. That spring, we work so hard getting the areas worked up, seeded, fertilized, maybe even applying lime, and then covering our newly planted seeds with straw. We drag hoses, followed by watering, watering, and more watering, and watch with satisfaction as our new grass comes up, looking great, and all spring our level of satisfaction is high.

However, all good things must come to an end, and as summer gets closer, the day and night time temperatures continue to climb. Our beautiful grass isn't looking so good, even though we are watering it regularly. It is getting lighter green, not growing, and just isn't doing well. Finally, in the heat of summer, that beautiful grass gets thin, turns yellow, brown, and then just dies. Unfortunately, that's not the end of the season. By working the area up, watering it and fertilizing it, we also made a great place for weeds to grow, and soon, without the new grass growing in the area, crabgrass and weed seeds germinate and grow. They move right into the area where our beautiful grass was only a few short weeks ago. These terrible looking weeds grow and grow, getting nice and thick. Finally, as fall arrives we get the first frost, the weeds and crabgrass turn brown, leaving the same unsightly area that we had when we started all the way back in March. Frustrated and tired by this time, we vow to either attack that area again next spring or maybe, after trying several times to just throw in the towel and let the weeds and crabgrass have that area.

### **Does any of this sound familiar?**

This sequence of events is all too common, and leaves the homeowner feeling frustrated; having spent time, energy, and money only to have no improvement at the end of the season. However, not only do we have an explanation for why this happens, we also have a solution! It is time to break the spring seeding cycle.

### **The Problems with Spring Seeding:**

Although spring seeding is very common for garden crops and other plants, spring seeding of grass is very difficult due to conditions that are often beyond our control. During spring, temperature and rainfall is perfect for grass seed



germination and growth. However, when temperatures climb in the summer problems begin to occur. To understand what happens, we have to back up and give some background on grass and plants in general.

The majority of lawns in our area are comprised of turf type tall fescues and bluegrass, all of which are cool season grasses. These grasses are called cool season grasses because they grow well in cooler weather, like we have in the spring and fall. Their optimum temperature for growing and manufacturing food (photosynthesis) is between 68 to 77° F. Above 77° F, grasses are able to still manufacture food, but at a lower rate. However, once air temperatures rise above 87° F (which happens every summer), photosynthesis becomes very limited. This happens for several reasons, but the major issue is that the plants try to utilize oxygen instead of carbon dioxide to manufacture food, and a process called photorespiration begins. During photorespiration, a grass plant actually uses more energy than it manufactures. So, during periods of high temperatures, plants have limited food production by photosynthesis and the plant is utilizing energy in photorespiration. Without enough energy to produce new growth, we see a significant reduction in growth, both of the shoots and roots. During this time, grass plants tend to stop growing, roots often die back, and then crowns, or tops, of the grass plants thin out. Have you ever seen this during the summer, thin and slow growing turf in your lawn?

While this happens every year to cool season turf, it usually doesn't kill the grass. Older grass plants are well established and have carbohydrate reserves. They suffer through the summer, and then resume growth when fall temperatures arrive. However, the problem is with the spring seeded turf. These grass plants are very young, tender, and have limited roots and food reserves. With only limited food and root reserves when summer temperatures get high, these plants are unable to tolerate the stresses of summer and often die. This sets the stage for weeds and crabgrass to move in.

### **So what does all this mean?**

Grass planted in the spring comes up great, but it lacks the root development and food reserves to deal with the high summer temperatures we have every year. It thins out, and many of the young seedlings don't make it to the fall. There are also two other major problems with spring seeding. First, when managing cool season grasses, pre-emergent products are typically applied in the spring to control crabgrass, the number one weed in lawns. Pre-emergent products work by preventing seed germination and they cannot be utilized with new seeding because they will also prevent the new desirable seed from coming up. Second, young turf benefits from fertilization. The young turf has a limited root system and to improve the density, color and growth of young turf, moderate fertilization is recommended. However, this type of fertilization is not recommended in the spring.

So what should I do you ask? The answer is, **FALL SEEDING**. The best chance for grass plants to survive the stress associated with summer is for them to develop as many roots as possible and to be as mature as possible before summer arrives. To accomplish this, fall is the time to plant. Warmer soil temperatures mean faster seed germination. Typically, our rainfall patterns are more consistent in the fall, and by seeding in the fall, we allow grass plants to become established before winter sets in. They are able to grow roots well into the late fall and early



winter. As spring comes, these plants develop more, get thicker, and grow deeper roots. When summer arrives, their food reserves and root development are much better, and they are able to endure the summer stress without dying like the spring seeded grass.

### **The New Strategy:**

So, I should to wait until the fall to seed my lawn? Yes, in order to have the best results possible, waiting until fall is advised, unless you have bare areas or a limited time frame. Even in these cases, we still recommend returning in the fall to overseed again. However, don't despair, there are a number of things you can do prior to the fall seeding event! During the spring, look over your lawn and decide which areas need improvement. Have a soil analysis performed for the area of interest, so if lime or nutrient adjustments need to be made, they can be made during the growing season. Apply a spring pre-emergent if crabgrass has been an issue, and plan ahead for broadleaf weed control. A month or more before seeding, get rid of the broadleaf weeds and crabgrass with a liquid weed control application, because the young cool season grass seedlings that we are going to plant have a tough time competing with weeds that have been growing all season. Once seeding time arrives, aerate plant, fertilize, and water and wait till next year to see how much better your lawn looks!

