



ALL ABOUT HYDROSEEDING

WHAT IS HYDROSEEDING?

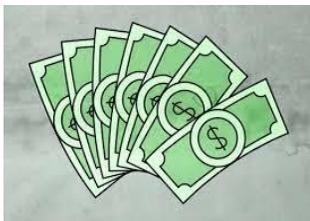
Hydroseeding is an application of a water-based slurry mixture of seed, mulch, fertilizer, and other additives applied simultaneously under pressure over **PREPARED SOIL** for establishing and/or rejuvenating lawns, ground covers and vegetation after construction.

Hydroseeding can be use just about any place where the ground has been disturbed from construction to restore lawns, ground covers and vegetation and keep the soil from eroding away due to wind and rain.

Hydroseeding is practical for residential and commercial projects and can be customized to meet the individual needs of practically any ground reclamation, erosion control and/or lawn establishment, rejuvenating project.



HOW MUCH DOES HYDROSEEDING COST?



Unfortunately, there is **"NO"** set price for hydroseeding because the cost is determined by each job's individual requirements and variables. The five primary methods for erosion control, establishing /rejuvenating lawns, and/or ground covers and after construction are:

- Dry Seeding The least costly and effective method
- Hydroseeding About 2 times the cost of dry seeding
- Slit Seeding About 2 times the cost of hydroseeding
- Sodding Between 3-5 times the cost of hydroseeding
- Terraseeding About 3-5 time the cost of sod making it most expensive

KEEP IN MIND THESE COSTS ARE VERY GENERAL AND DEPENDING ON YOUR AREA COULD FLUCTUATE WILDLY

SUCCESSFUL HYDROSEEDING STARTS WITH THESE FUNDAMENTALS

No two hydroseeding projects are the same. Therefore, these key fundamentals should be followed for successful hydroseeding. The advantage is ultimate success with the project. Hydroseeding's effectiveness is combining all the essentials elements for fast, healthy seed germination in a highly efficient and simultaneous application. The critical fundamental elements are:



- Soil Testing
- Soil (Seed Bed) Preparation
- Timing (**When to Seed**)
- Seed protection/moisture retention (**Mulch**)
- Seed Selection
- Prompt source of nutrients (**Fertilizer**)
- Post Seeding Care and Maintenance
- Common Sense

SOIL TESTING

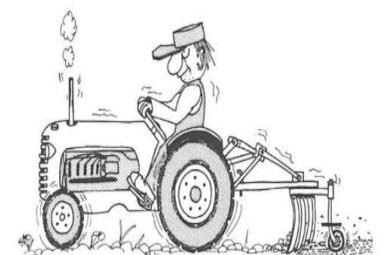


Soil type, and quality have the greatest influence on the hydroseeding's establishment, growth potential and sustainability depending upon the amount of organic matter present within the soil.

Soil testing provides essential information to determine what adjustments need to be made to assure a more favorable growing environment for faster, more complete germination, establishment, and sustainability. Having the Physical, Chemical and, most importantly, the Biological (**Organic Matter**) data aspects of your soil is critical for improving soil health. **ESPECIALLY IN SANDY SOIL.** www.agtest.com/forms/lawngarden.pdf

SOIL (SEEDBED) PREPARATION

Not preparing the soil or (Seedbed) correctly is one of the most common and major mistakes made when hydroseeding. The soil (seedbed) must be **"PROPERLY PREPARED"** prior to hydroseeding. The extent of the soil (seedbed) preparation depends greatly upon your soil test results, selecting the right additives, if any are needed to condition the soil and the type of hydroseeding application being done. Most seeds require a fine textured, loose soil surface for the small roots of the seed embryo to penetrate and take hold. You can have the finest seed and best fertilizer, but poor soil (Seedbed) preparation can lead to inadequate results.

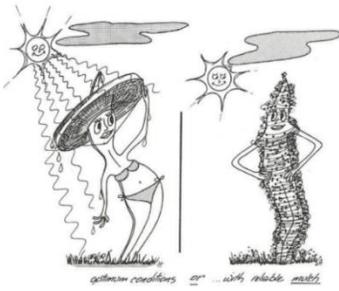


- **OVERSEEDING APPLICATION:** Requires cutting down all existing vegetation as short as possible, removal of all rocks, debris and loosening of the compacted soil. For the seed's embryo to germinate, have the small roots take hold and grow deep the seed must be in direct contact with the loosened soil.

- **NEW APPLICATION:** Requires 2-4 inches of bare loose quality soil surface, removal of all rocks and debris. For the seed's embryo to germinate, have the small roots take hold and grow deep the seed must be in direct contact with the loosened soil.

"DO NOT UNDERESTIMATE THE TRUE VALUE OF GOOD AND PROPER SOIL PREPARATION"

TIMING (WHEN TO HYDROSEED)



When to hydroseed depends on your climate. The ideal time is when it is cool but not cold, and you are expecting a reasonable amount of rainfall. The rain will help defray the costs of supplemental watering. Spring and Fall seasons are widely accepted as the best time to hydroseed. **However, hydroseeding can be done at anytime, provided that the ground is not frozen, snow covered or too soft for equipment.**

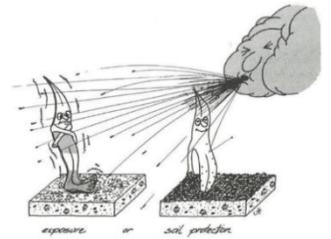
The conventional planting season in Southern Ontario for most grasses is during those seasonal periods when daytime air temperatures range between 15 - 24 degrees Celsius (59 - 75 degrees Fahrenheit), and ground temperatures are at least 15 degrees Celsius (59 degrees Fahrenheit) and regular rainfall is anticipated, e.g., May, June, and September.

Most grasses, ground covers, wildflowers, and vegetation seeds have built in self defence mechanisms, which inhibits germination when temperatures are outside this range and will generally remain dormant until temperatures are within this range. Seed germination varies between grass species and a newly hydroseeded lawn may require up to six weeks or more before they are able to withstand normal lawn traffic, lite play, and minimal pet usage. Weather also influences germination speeds.

- Spring Seeding: Takes advantage of spring rains and cooler temperatures making for particularly good growing conditions. The disadvantage is that if spring is followed by a dry hot summer, it may take more watering for the first year to keep it alive and thriving in the summer.
- Early Fall Seeding: Takes advantage of the warm daytime and cool night temperatures for good growing conditions. This gives the seed time to establish before winter sets in. The seed will go dormant in the winter and then have the rain and cooler temperatures of spring to give it a good start before a hot summer.
- Summer Seeding: Unless you have an abundant and cheap source of water its best not to hydroseed in the summer. There is not much point in fighting off high temperatures if it is possible to avoid it.

SEED PROTECTION, MOISTURE RETENTION (MULCH)

For the small roots of the seed embryo to germinate and take hold, the seed must be in **"DIRECT CONTACT"** with the soil and the soil surface must remain stable. Therefore, protecting the seed from the elements (Wind, Heavy Rains, Excessive Heat) is essential for germination.



The hydroseeding mulch **"GREEN STUFF"** in the hydroseeding slurry is the most critical component because, once cured stabilizes the soil, protects the seed, retains moisture, and maintains temperature during the critical germination period. Which provides your hydroseeding the best opportunity for a fast start and healthy, sustained growth. The main types of mulch are:

- Cellulose – Typically made from recycled newspaper is least expensive mulch and is vulnerable to erosion since it is light weight unless mixed with tackifier and other erosion control additives.
- Wood/Paper Blend – Provides better moisture retention and less vulnerable to erosion than paper and it creates a strong soil bond.
- BFM/FRM – High performance products that are essentially spray on erosion control blankets that form a tight matrix and soil bond.
- HGM –An extremely biotic-active hydraulically applied mulch and growth medium that includes a high concentration of soil builders. HGM are specifically designed to assist in building an effective plant growth medium over poor topsoil or even subsoil. It is vulnerable to erosion unless covered with mulch and/or mixed with tackifier and other erosion control additives.

The type and amount of mulch used for hydroseeding depends entirely upon the type of hydroseeding job being done and the slope or grade of the area being seeded.

SEED SELECTION



Virtually any plant that can be grown from seed can be hydroseeded. Therefore, select a seed or seed blend to create the plants you want to establish, grows well in your area, are suited to your soil's conditions, has the texture and color you want and can withstand the intended usage.

(NOTE WE SAID "PLANTS" BECAUSE MORE THAN GRASS MAY BE HYDROSEEDED)

We said blend because a blend consists of both perennial and annual seeds. Annual seeds (Cover Crop) germinate quickly to protect the slower germinating perennial seeds. Blends for sun, shade, endurance, sandy or clay soils, dry and/or wet conditions and many more are available. So, choose what is right for you. The Canadian Government regulations require a minimum of 70% germination rate. To ensure germination standards, seeds available in Canada have been developed through breeding processes for sustainability, hardiness, and habits.

Seed application rates should be those of the manufacture's specifications. Too much or too little seed will influence the germination, which can lead to inadequate results.

NUTRIENTS (FERTILIZER)

Newly hydroseeded seed must have a prompt source of nutrients immediately following germination. Based on your soil test results the fertilizer and additives within the hydroseeding slurry is the most effective way for seed to have a prompt source of nutrients and additives needed to ensure strong and healthy growth.

The three main components of fertilizer are Nitrogen, Potassium, and Potash. These elements are listed on the bag, which provides the percentages. The first number is "Up", which is for the green grass you see, nitrogen makes the grass green and healthy looking. Second number is "Down", Potassium is for a healthy root system, and Third number is "All Around" for the overall plant health such as disease resistance.



A rhyme to remember is: **UP (NITROGEN), DOWN (PHOSPHATE), ALL AROUND (POTASSIUM)** It is not uncommon to have areas that are slow to germinate. This is due to the differences in PH levels and compaction in soil. Many of these areas will fill in once mowing begins. Lack of water or over watering may also attribute to slower germination.

POST SEEDING CARE AND MAINTENANCE



A post-seeding maintenance program is essential, and you must stick to it. The program (12 Month) should consist of proper watering, mowing, fertilizer and weed control. Weeds are in the soil and germinate faster than most grasses; however, over time with proper maintenance most weeds will be eventually choked out and controllable as competition from the maturing plants increases. To ensure satisfaction and pleasing results. Do not apply any type of weed control product for at least 8 (Eight) to 12 (Twelve) weeks after seeding. The product will have adverse affects on the new seedlings.

IF NOT FOLLOWED, EVERYTHING DONE WAS A WASTE

COMMON SENSE

Very rarely does anyone purchase a product that does not materialize for several weeks. Most everyone understands that **MOTHER NATURE** has her own timetable for seeding conditions and growing. It only becomes a reality when everything is in tune with nature. Therefore, by using common sense and practicing MOTHER NATURE'S principles hydroseeding can meet the growing demands of today's multi-seasonal seeding requirements.



HOW TO GET WHAT YOU EXPECT



- Seek out a professional who has knowledge and experience
- Invest in beneficial soil testing
- Partake in soil preparation
- Embark in sound post maintenance and cultural practices
- Have a signed agreement, and
- **MOTHER NATURE REMAINS UNPREDICTABLE**

Hydroseeding is much more than just slopping some seed and mulch on the ground and hoping it will grow! A lot of information was covered with this overview of hydroseeding, but there is much more content than we can include. We encourage you to look at the sources below if you want more information:

1. [Hydroseeding - Wikipedia](#),
2. [Eastern Canada \(dlfpickseed.ca\)](#)
3. [Profile Corporate | Solutions for your Environment \(profileproducts.com\)](#)

GOOD RESULTS AND EVERYBODY'S HAPPY



POOR RESULTS AND NO ONE IS HAPPY

