



**Box 1676
Camrose, AB
T4V 1X6
(780) 678 6450
sales@scottsqualitylawncare.ca
scottsqualitylawncare.ca**

“Your Home Turf Advantage”

WHY ARE THE PINE NEEDLES KILLING MY GRASS?



Evergreens, such as spruce trees or pine trees can be a beautiful addition to your yard-scaping. Evergreens tend to be quite hardy and are well-suited to our region and climate. Depending upon the variety they can grow quite large rather quickly compared to most trees and they can provide year-round shade. Their shade can help cool your house and yard. Once they've grown larger, they can also be utilized as natural privacy screens or wind breaks, too.

The one challenge however, for those who pride themselves in a well-maintained healthy lush lawn is that growing grass underneath one of these evergreens is very difficult, though not entirely impossible. For many homeowners, they've already given up to dead grass and essentially, needle covered ground under their trees. For others, they're doing whatever they can and have managed to have some healthy lawn reaching under their evergreens.

That being said, it's an all too common site to see dead grass underneath most people's evergreen trees. It may make for a nice dense mulch of fallen pine needles and pine cones around the base of your trees, but if you intended much else to grow under their canopy, it's likely, realistically, to be a serious challenge, to say the least.

A healthy lawn requires plenty of sun, enough water and an ongoing supply of nutrients. But guess what?

That's exactly what your evergreen trees are also requiring. So when you grow grass and trees together, it's essentially a highly competitive environment where both are competing for the same resources. Evergreen roots also tend to be numerous and shallow. They'll compete for the same water and nutrients and given their size and annual growth they're apt to gain the upper hand against your grass.

“Your Home Turf Advantage”

Needles dropping from evergreens can also produce a thick mat layer that literally becomes a physical barrier for anything trying to grow in its midst. It will surely hinder any grass growth beneath the tree's canopy or potentially kill it in less time than you think.

However, it's actually not the acidic nature of the needles that will do its damage. That's a bit of a myth as I'll explain in a moment...

Spruce trees' needles are smaller whereas pine trees have the notorious longer larger needles that prove to be the most challenging to deal with. For the purpose of this article, we'll talk about pine trees and pine needles as our worst-case detriment to healthy lush lawns when they're sharing the same environment.

THE pH MYTH

There's some disagreement out there about what I'm about to say.

Most people believe that grass will not grow around pine trees because the fallen needles will make the soil so acidic that nothing is able to grow. Yes, it's true that pine needles have a more acidic pH range between 3.2 and 3.8 (7.0 is neutral) when they fall from the tree, but even as they accumulate they have *negligible effect* on plant growth. The proof is in testing your soil, not going with the wrong assumption that so many people make.

The truth is, pine needles do not really make the soil more acidic. Even if you were to take the freshly fallen needles (before the needles have a chance to decompose) and then mix them into your soil immediately, you *might* see a very slight drop in the soil pH, but the change would be negligible and not damaging to your grass or any plants.

Remember too that the roots of your plants, or in this case, your grass, are not growing in this fallen needles material solely. The fact is that as the needles break down naturally over time, they are actually neutralized by the soil microbes that are doing their normal decomposing work and the needles will have little effect on the overall soil pH.

It's been convenient to blame our dead lawns under evergreens to the acidic nature of the accumulating fallen needles, but that's not the real primary sole cause...

SO WHAT'S THE REAL PROBLEM?

Ironically, pine needles can restore some nutrients to the soil. Over time, albeit very slowly, they will decompose into nitrogen, calcium, and phosphorus. These three components can help promote healthy grass growth for seedlings and existing roots, but too many needles can become a problem... and that's where the real issue lies. That's very common as most people do not regularly remove these needles.

So YES, pine needles left on the ground to accumulate (that being the operative word) will surely kill grass but here's how that happens in order of greatest impact to least impact:

As we all know, oxygen, sunlight and water are foundational properties for what most plants and grass require to survive, so...

1. An ever-increasing layer of fallen needles will block air and sunlight from reaching the grass, thereby smothering it, damaging it in varying degrees, for which it may not be able to recover.

“Your Home Turf Advantage”

2. Add to that the fact that as the tree canopy increases in size, the ground below the tree(s) will be more shaded wherein the direct sunlight simply can't sufficiently reach any grass that may be trying to grow there.
3. Those needles will also rob moisture from the soil, or when it rains they'll hinder some of that precious moisture from getting down deeper to the grass roots where it needs to reach for your lawns to be healthy.
4. Excess accumulated needles will eventually kill your grass as the grass blades will bend under the pressure and cumulative weight of the pine needles. The grass blades and their roots will be stressed and given that they can't get all the proper nutrition, sunlight, oxygen and moisture they need to survive, your lawn is apt to degrade rather quickly, becoming brown and patchy, and eventually dying.
5. Yes, the acidity in pine needles will very slowly leach into the soil, over time, contributing to killing the grass... though the above 4 points do the most direct damage. However, if those fallen needles have accumulated for many years already, and have formed a dense thick mat, then of course, they're apt to contribute a little bit more acidity to the soil.
6. A layer of needles can also potentially create an environment where the more hardy drought-resistant shade-loving weeds that don't mind perhaps more acidic ph levels, can take root in the absence of healthy lawn. There's no competition for those kind of weeds, so they may be able to thrive more readily.
 - But as is the case more often than not, even that layer of needles can simply suppress all weeds and not just your grass.
 - Additionally, if the depth of the layer of needles is continually increasing and the needles are slowly decomposing and also catching dust and dirt from the wind, plus any surface soil erosion drainage, etc., you're going to end up creating a layer of needles mixed with some soil that could in fact provide the growing habitat for some hardier weeds to take root.
 - It's not apt to be enough for grass to grow within it, but some weeds don't require much to start sprouting up.

It should also be noted that dry pine needles can become a fire hazard when extreme drought conditions are experienced ---

If the accumulation is substantial, those beds of pine needles can become beds of tinder (instant fuel) that can ignite surprisingly easily. Pine trees' needles and resin are both highly flammable. If you live in a region prone to drought conditions, dry summers, or occasional wildfires, be certain to regularly clear the pine needles from your yard. Likewise, if you're gathering around a lit firepit for a weiner roast, in close proximity to matted pine needles and the wind's blowing... don't let any embers fall on those super-dry needles or you may be in for a surprise that nobody wants.

***** IT'S LIKELY RATHER OBVIOUS BY NOW, AS YOU READ THIS, IF NOT COMMON-SENSE, THAT YOU NEED TO BE REMOVING THOSE NEEDLES SO THEY DON'T HAVE A CHANCE TO ACCUMULATE.**

I'll say it again... Once the grass is killed under an evergreen, it can be very difficult to reclaim that ground. While the needles keep on falling, it's going to be an uphill battle to grow grass there, but it can be done. It's not the be-all and end-all solution but your best bet is to regularly clear away pine needles to prevent the lawn from dying.

So, let's first consider what are the best ways to get rid of the needles and then after that we'll consider how to improve the growing conditions under those trees.

“Your Home Turf Advantage”

HOW TO GET RID OF PINE NEEDLES

Obviously, if too many needles are piling up without being removed, the grass can become damaged at the least, or turn brown, and die eventually.

Generally speaking, lawn mowers and traditional leaf rakes won't do a great job. They're nearly useless for getting rid of pine needles, even if you use a specialized mulching mower. Pine needles are much denser than deciduous leaves, meaning the suction created by typical mower blades oftentimes isn't enough to lift the pine needles off your yard and up into the cutting blades. You'll clear many more fallen pine needles a lot faster with the higher airspeeds and concentrated power of leaf blowers and lawn vacuums. Alternately a lawn sweeper or a specialized rake designed to collect pine needles will work very well, too.

Let's consider some of these:

LAWN SWEEPER ---

Though not so commonly used, lawn sweepers can be the ideal tool for clearing your yard of pine needles, pine cones, as well as dead leaves. It's typically a walk-behind unit that you push across your lawn. There are also tow-behind sweepers that can be attached to a riding lawn mower or ATV for a larger yard or acreage. Either type will clear your yard of pine needles in record time. It essentially uses a rotating bristle to sweep debris off your lawn and into a collection bin. It works much more quickly and effectively than rakes or traditional bag mowers for collecting pine needles.

LEAF BLOWER ---

Here's a piece of equipment many homeowners have... Rather than attempt to rake up fallen pine needles, which are apt to slip between traditional rake tines and cling in garden crevices among roots and rocks and whatnot, consider a good leaf blower with at least 200 mph blowing velocity. That should be adequate for blowing dense, heavy pine needles onto a tarp much like you would with leaves. This isn't very necessary if there are only a few needles here and there, but if you have a big pine tree, a leaf blower will save you hours of time. Blow them into a pile on a spread out tarp on a low setting. Don't do it on a high setting, or else you may send them flying into your neighbor's yard. Compared to other methods, blowers are also better suited for cramped locations and corners as well as within gardens.

LAWN VACUUM ---

Instead of blowing pine needles onto tarps to bag and dispose of, try a lawn vacuum to get the pine needles out of your lawn and bag them all at once. Clean up is very easy and tight corners no longer become collection spots for pine needles. The vacuum function also comes in really handy for clearing pine needles from drains and rain gutters.

SPECIALIZED RAKE ---

Standard rakes aren't very effective at collecting pine needles as they slip between the tines. If you want the best rake for pine needles, you'll need one designed for the job. Ideally that should be a rake with thin, springy metal tines arranged close together. These designs collect pine needles in one sweep, doing twice the work of a standard rake in half the time. This is perhaps the most inexpensive way to clear your yard of pine needles with less effort. However, the above three options are still the best means.

IMPROVING GROWING CONDITIONS

Bottom-Line: Will Grass Grow Under a Pine Tree?

We all know that pine trees often drop lots of needles, cones, sap, and many other types of debris that can harm growing grass. Growing a healthy lawn where pine needles fall can be difficult unless you improve the growing conditions.

Can those areas always be reclaimed?

Sometimes yes... and sometimes no, no matter what you've attempted to do.

However, at least give the following a good try ---

1. As previously mentioned, assuming the tree is not so large that it totally blocks out all sun and rainfall from reaching underneath it, grass has a better chance of growing under a pine tree if you remove the pine needles quickly enough.
 - Don't let a thick layer of pine needles build up. Remove the needles regularly to allow more sunlight, air, and water to reach the grass.
2. Remember also to remove any pine tree sprouts as soon as you see them.
 - They'll spread their roots, absorbing nutrients intended for the grass and other plants.
 - Small pine trees growing from seeds will also shade the grass, limiting sunlight, oxygen, and water from getting to the roots and blades of grass.
3. Prune back tree limbs to allow more sunlight to reach the grass.
 - Observe throughout the day where the sunlight normally shines on your tree(s) and any grass below it, and then if you think it can help, cut back some of the lower tree limbs to expose those hidden grass areas to the sun's rays.
 - Pruning some of those limbs may also enable any rain to fall more directly on the grass beneath the tree canopy, too, and that's definitely going to help.
4. Raise your mowing height under pine trees to improve the turf's ability to compete with the trees for water and nutrients.
 - If it's young grass trying to sprout up through fallen needles, it's not apt to survive under the evergreen's canopy.
 - But if it's already mature taller grass (albeit perhaps struggling) that's been getting some sunlight and good moisture, you may still have a good fighting chance to improve its growing conditions and have it survive by not mowing it so short.
5. Avoid shallow watering and fertilize periodically to increase the grass's ability to adapt to the shade.
 - It needs water to reach all the way down to its roots (not just a light watering on the surface) and it needs those extra nutrients to help it grow --- If it's denied other, it's not going to survive for long.
6. It can't hurt to have the soil under the pine tree(s) tested to see what its pH levels are. If you've had a deep layer of needles on the ground there for many years it may have indeed, lowered the pH level thereby increasing the acidity a bit. If so, add a soil additive to make it a little more alkaline.
 - On that note, we offer an excellent product, our ENRICH Soil Enhancer that can correct pH imbalances and restore the nutrient balance within struggling soil, or in this case your lawn trying to grow within that soil under your pine tree(s).

“Your Home Turf Advantage”

- It's not a magic apply-one-time solution but neither is any product out there like that. However, as our clients attest, it does some pretty amazing stuff in restoring struggling lawns, especially if you're applying it periodically year after year.
 - Could it help that struggling grass under your pine trees? Without a doubt!
- First, where applicable, be sure you've done the above 5 steps... Thereafter, we'd highly recommend adding this soil additive to your grass under your pine trees. (i.e. But be mindful that there's no point adding anything to help your lawn grow better if you're allowing it to be constantly smothered by a layer of pine needles, right?)
 - This is an all-natural product comprised of over 50 of the highest quality plant extracts that serve as a *nutrient feast* for existing microorganisms in the soil, or in this case your struggling grass trying to grow in the soil beneath the canopy of your pine trees.
- ENRICH will do just that... enriching, rejuvenating, and awakening and/or increasing the microbial activity and diversity within the soil your grass is growing within.
 - It consists of up to 3 spray treatments per year.
 - In fact, the more, the better, as you can never get too much of a good thing, or in this case, the best nutrient supplement for your grass.
 - It will enable greater oxygen and water absorption both of which are some of the main problems when your grass has been regularly smothered by fallen needles.
 - It will help create a healthier root system and increase the organic matter within your soil.
 - The added side benefit is that it's also going to help your pine tree(s) grow healthier, needless to say.
 - It essentially improves soil structure making it more porous, allowing your grass to root deeper, too.
 - It will strengthen your grass roots and should give your lawn a better chance of recovering and growing thicker and healthier over time.
 - It will enable a more robust turf that will become more drought-tolerant, too.
 - This of course, assumes you are regularly removing needles that may continue to fall on that grass, the accumulation of such being the biggest risk to lawns.
 - Please note that ENRICH is not only for struggling lawns --- It is ideal for any kind of lawn, healthy or otherwise, and for any kind of grasses, plants, flowers, shrubs, trees, etc. It enriches your soil so that anything growing within it, is going to grow that much better.

A COUPLE FINAL NOTES...

WHAT DO YOU DO WITH FALLEN PINE NEEDLES?

With fallen or dead pine needles, you can discard them in your yard waste container. Alternately, you can compost them though we don't recommend that you put too many into your composter as they'll take considerably longer to decompose. Compared to your other organic compost material which may be ready to add to your soil, your needles may not yet be that broken down.

OR...

CAN YOU USE PINE NEEDLES AS MULCH?

Of course you can. Capitalize on the problem they are to you and make the best of it. By that we mean... if they seem to be an endless supply forever falling from your evergreens, then why not get some benefit out of them, right?

“Your Home Turf Advantage”

Pine needles can make an excellent mulch around trees or shrubs where you purposely do not want grass to grow, or regardless of what you were doing, couldn't seem to get it growing. Gathering up the pine needles from your lawn areas where you don't want them to accumulate and using it where you want to keep the ground free of grass helps recycle the pine needles and can benefit your yard landscaping.

Just like any good mulching material that you may put around the base of trees or shrubs or within your gardens, a needle mulch will help conserve the soil moisture, as well as suppress weeds and as previously mentioned, eventually add some nutrients back into the soil. It will also help moderate the soil temperature.

Some people will surround the perimeters of such areas with concrete pavers or bricks or some other decorative border. Some homeowners looking for a more rustic look may enclose the pine needled area with rocks or perhaps some short upright small diameter logs. Or maybe they also spread fallen pine cones everywhere on top of the needles, too. It depends how creative you may want to be and what suits your landscaping style within your yard.

As an alternative to gravel or sand or cedar mulch, some acreage homeowners have used pine needles as the natural surface covering their pathways (non-concrete sidewalks) throughout their yard. They can look beautiful in any yard that has that rustic all-natural look.

So, to sum up...

Rather than give in to possible dead grass under your pine trees, re-purpose those pesky pine needles. On the one hand, depending upon how serious a problem they've created for your lawn, you may be able to get your struggling grass to recover. If it's just been too many years of dead or dying grass under those evergreens, re-purposing those needles and doing a bit of creative landscaping can turn that problem into a beautiful looking yard. It all depends on what you want to do.

We trust the above information and tips will be a help to you. Good luck!

***** SPECIAL NOTE *****

We love helping our clients have great-looking lawns! Of course, we always welcome your inquiries, but we also want to help educate you, too. So many of you have told us how much you appreciate the articles we make available to you.

If there are any questions you may have about your lawn or any challenges or problems you may occasionally encounter with your lawn, don't hesitate to give us a call. As with the above info article you've just read, we also have other highly beneficial lawn care articles, too... Here are some we've created to support you with your lawn care efforts. They can help you identify any problems as well as offer some possible solutions for some of those occasional challenges lawns can encounter.

These info articles are not meant to be one-time definitive cures for whatever might ail your lawn. We all wish it was only that simple... But, there are no magic "spray this once and your lawn will be perfect thereafter" solutions... Unfortunately, those don't really exist, as much as we might all like them to. However, there are many things you can do to get your lawn in great shape and keep it that way. We encourage you to glean what you can from any of the following articles that may interest you. And for what you're not sure about, give us a call, let's talk about it, and we'll do what we can to help you. You may reach us at 780-678-6450 if you'd like to receive any of these via email. It would be our pleasure to do our part to help you "make your lawn the envy of your neighbours"...

...See list of available articles on next page...

"Your Home Turf Advantage"

From Our **“PROACTIVE LAWN CARE”** Series Of Articles —

7 Steps To A Great Lawn

Caring For Our Lawn Over The Winter

Proactively Preparing Your Lawn For Drought Conditions

From Our **“WHAT YOU’RE NOT TOLD”** Series Of Articles —

What You’re Not Told About All-Natural & Organic Lawn Care Alternatives

What You’re Not Told About Bats & Their Guano

From Our **“WHY?”** Series Of Articles —

Why Is My Grass So Thin?

Why Dead Spots On My Lawn?

Why Am I Getting Mushrooms In My Lawn?

Why Are The Pine Needles Killing My Grass?

From Our **“HOW TO GET RID OF...”** Series Of Articles —

How To Get Rid of Ants

How To Get Rid of Dew Worms

How To Get Rid of Fairy Rings

How To Get Rid of Quackgrass

How To Get Rid of Thistles

From Our **“DAMAGE BY DOGS & OTHER CRITTERS”** Series of Articles —

Fixing & Preventing Dog Spots

Damage Caused by Voles

From Our **“SEEDING LAWNS”** Series Of Articles —

Grass Seeding For New Lawns

Overseeding For Existing Lawns

From Our **“DIY”** Series Of Articles —

DIY_Alternate Ways To Remove Weeds In Gravel Areas

From Our **“COMMON LAWN FUNGAL DISEASES”** Series Of Articles —

Common Lawn Fungal Diseases (Compendium Of All Common Ones)

Common Lawn Fungal Diseases_The Usual Causes

Common Lawn Fungal Diseases_Snow Mold

Common Lawn Fungal Diseases_Leaf Spot & Melting Out

Common Lawn Fungal Diseases_Ascochyta Turf Leaf Blight

Common Lawn Fungal Diseases_Brown Patch

Common Lawn Fungal Diseases_Summer Patch

Common Lawn Fungal Diseases_Pythium Blight

Common Lawn Fungal Diseases_Red Thread

Common Lawn Fungal Diseases_Rust Diseases

Common Lawn Fungal Diseases_Powdery Mildew

Common Lawn Fungal Diseases_Dollar Spot

Common Lawn Fungal Diseases_Fairy Ring

...See more on next page...

“Your Home Turf Advantage”

INFORMATION ON OUR FIVE PRIMARY LAWN CARE SERVICES —

FERTILIZER & WEED CONTROL:

Our Fertilization & Weed Control Program
Possible Reasons For Still Having Weeds
Ten Reasons Our Program is Different

ENRICH SOIL ENHANCER:

Our Enrich Soil Enhancer Program
Different Soil Types Have Different pH Levels

WEEKLY MOWING:

How The Weekly Lawn Mowing Works
Our Quality Control Program
Ten Reasons We Are Different

CORE AERATION:

Why Aerate Your Lawn?

POWER RAKING:

Why Power-Rake Your Lawn?

“Your Home Turf Advantage”