

# **Complete Owner's Manual**

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## **INTRODUCTION**

We would like to thank you for choosing Topeka Landscape to help enhance the beauty of your property. Enclosed in this manual are several pieces of information that will be helpful to you as you enjoy your new landscape.

In this manual we have used averages for some to the settings and practices. As environmental conditions change from landscape to landscape, please keep in mind that your landscape maintenance program may need to vary in some degree to achieve the best results.

We would like to thank you once again for having us do your landscaping. If you feel we have provided you with a quality service, please feel free to tell a friend. We would be happy to give them a bid for any of their landscaping needs.

Thanks again and please don't hesitate to contact us with any questions or concerns you may have.

#### **CONTACT INFO**

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We'll send out tips and tricks about your landscape and you'll be the first to know about online promotions. "Like" our page today!!!

## **IRRIGATION SYSTEM OVERVIEW**

Owning an automated sprinkler system has many benefits and can be fairly simple to operate. It always beats dragging a hose around the yard. Successful lawn renovations, sod installation, and continual watering of an existing lawn is easily accomplished with the touch of a few buttons. One of the major benefits that I have seen over the years is the lack of mess created while establishing a new lawn or overseeding an existing lawn. Every time you walk on your seed or drag equipment, such as hoses and manual sprinklers, across your lawn, you are losing valuable seed. Some seed always sticks to the hose and your shoes, while other seed gets trampled and never has a chance to germinate. Even the seed that does germinate can later be trampled causing voids of grass in your lawn. Automated systems eliminate all of this mess and waist, giving you the best opportunity to achieve good results from your project. Other benefits include water efficiency, ease of use, and service. The following facts about sprinkler systems might help answer some questions that you might have about them.

When we install a system, we set it according to the specific needs of your lawn and landscape. In general, all zones with rotary sprinklers will be set to run longer than zones with fixed-spray sprinklers. The reasoning behind this is that the rotary sprinklers are covering a much larger area and do not have a fixed radius. In other words, they are not hitting the same area with water over the entire run time. Fixed sprays cover the same area for the entire run time; therefore, they put down more water in the covered area in a shorter amount of time. Run times vary according to the needs of the landscape. Zones that incorporate a drip line for irrigation will need an even longer run time due to the reduced amount of water that is emitted from the line over the same amount of time (flow). However, drip is always more efficient for plants in the landscape because the water is directed straight to the rootzone and has less of a chance to be lost via evaporation or wind. All of our systems consist of a PVC main line and poly lateral lines that reside anywhere from 8" to 12" under the surface. The systems are designed for maximum coverage and efficiency. Some systems are designed with an optional rain sensor, which reduces water usage and aids in maximum overall efficiency. Each system comes with an automatic controller installed by the technician. By request, the technician can go over the controls with you, so that you have a better understanding of how it works and in case you might need to change a setting on the controller. The controller also comes with a manual that is provided upon installation. The manual will cover every aspect of the controller and its operation.

As always, to ensure that we can better serve you, please do regular checks of your sprinkler system to note any damaged equipment that needs to be replaced. If your sprinklers run while you are asleep or not at home, there are also signs that you can look for that might hint that your system has a problem. For instance, if a line or valve is broken, you might have a squishy spot in your lawn or landscape. If it has been dry for a number of days, you might see a distinct green ring in a uniform pattern around one of the rotary sprinkler heads. Please inform us of any irregular patterns that you might observe as quickly as possible, so that we can fix the issue before there is any permanent damage done to your lawn and landscape.

Each year, we recommend that one of our technicians start up your sprinkler system and do a backflow test that is required by law. By doing this, we can inform you of any problems that might be showing up in the system or if it is working that way it should. In addition, we recommend that our technicians winterize the sprinkler system in the fall, before the ground becomes frozen in winter. Keep in mind that only exposed pipes or backflows could be damaged in the first few hard freezes if the system has not yet been winterized. It will take a long period of frozen temperatures to come close to harming any pipes that reside in the ground, due to them being insulated by the soil. Winterizing consists of blowing a large volume of air through your entire system in order to remove any water that has not yet drained out of the system. This is usually done in October and November.

For any more questions regarding automated sprinkler systems, feel free to contact us.

#### GENERAL SPRINKLER SYSTEM INSTRUCTIONS

Enclosed in this manual you will find a drawing of your sprinkler system as it was installed. This is known as an "as-built". If you find a need to dig in your yard, or make other modifications to your landscape, this as-built will help you locate the pipes and wires that make your sprinkler system work. Careful consultation with this map will assure no accidental damage to your system.

Your irrigation controller also comes with an owner's manual specific to your particular controller. In it you will find instructions on how to set the days, times, and duration for which your sprinkler system is to run. When your technician left, your controller was set to a schedule most appropriate for your individual situation based on the circumstances at that time.

As seasons change, you will want to adapt the schedule to keep your landscape in optimum condition. Average station times are as follows:

Drip Zones: 45-60 minutes as needed\*

Spray Zones: 20-30 minutes

Rotary Zones: 30-40 minutes

\*Drip zones are generally ran less frequently than spray and rotary zones.

Please understand that these are only averages and will need to be adapted as weather and other site conditions change.

It is important to repair any malfunctioning equipment as soon as possible, especially during the hot part of the summer. Check the system on a monthly basis, looking for clogged or misaligned heads, damage caused by mowers, or heads that do not extend or retract fully.

The winterization process removes all water and eliminates the potential for damage caused by freezing weather. If you contract with us to winterize and turn on your system, we guarantee there will be no freeze damage.

#### IRRIGATION SYSTEM MAINTENANCE

Your new irrigation system should provide you with many years of trouble-free operation providing that routine maintenance is followed. Although we offer programs by our trained irrigation technicians below you will find some simple maintenance procedures you can follow if you choose to maintain your system on your own.

## Spring Start-Up Procedures:

- 1. Close petcocks on and open the valves on the backflow device. In some cases this device is above ground near the house but can also be found underground by the meter.
- 2. Close the drain located in the pit where the waterline was "tapped".
- 3. Open the supply valve very slowly. This valve is also located in the pit where the tap was made.
- 4. If your controller is equipped with a battery, replace it. Set the time, day and date. Program each station time according to the seasonal averages listed at the beginning of this manual.
- 5. Run through the entire system to assure proper working conditions and to check for any leaks or other potential problems.

## Monthly maintenance:

- 1. Inspect heads and nozzles for proper coverage and working condition.
- 2. Clean any dirty nozzles or filter screens.
- 3. Inspect components for damage due to lawn maintenance procedures.
- 4. Adjust times on the controller to compensate for different temperatures and expected monthly precipitation.
- 5. Run through the controller to assure proper working condition.

Remember, your system can be maintained fully by Topeka Landscape irrigation technicians and that the above information is for you to use if you choose. Please contact us for more information on the yearly irrigation maintenance program.

## **NEWLY SOD LAWN CARE**

Congratulations, you have instant grass!!! But, there are some things to know about taking care of that new carpet in order to it to become your permanent lawn. If you follow these care tips, you should be able to establish your sod effectively.

Newly sodded lawns should be watered 2-3 times daily for the first week. Try to keep all traffic across new sod to a minimum, because it can separate the seams and disturb the underlying grade. The sod should be kept very wet during this first week in order to help the native soil merge with the soil on the bottom of the sod. The moisture also helps the roots grow into this native soil area, which is the main goal in establishment.

The first mowing of new sod can usually occur about three weeks after installation or when the sod reaches a height of 3"-5" tall. Lawn mower blades should be set to mow the grass at about 2 ½" and be sharp. Do not water the day before mowing because this will cause compaction, rutting, and the sod will mat on top of itself. As with any other situation, always follow the one-third rule of mowing (do not take off more than one-third of the existing blade).

After the first mowing, feed your new sod with a balanced fertilizer. This will stimulate growth in leaf tissue and root production, further aiding in establishment. The following year, in early spring, a preemergent fertilizer should be used to control annual grassy weeds from germinating. This will keep the lawn from having to compete with unwanted weeds for space, water, and nutrients that it needs to be healthy. After a period of one to two years, it is possible that some broadleaf weeds will infiltrate the lawn. At this point, choose an approved broadleaf herbicide to control any broadleaf weeds.

At approximately six week intervals from March to November, keep your lawn fed with the proper fertilizers. For most lawns, this consists of a preemergent fertilizer in spring followed by 3-4 more applications of heavier nitrogen products for the remainder of the year. If your sod was a cool-season grass (fescue, bluegrass), it is important to use a slow release nitrogen product in late spring and a very light nitrogen product during the summer to keep the lawn from burning. Excessive heat mixed with excessive amounts of exposed nitrogen particles can create chemical burns in your lawn.

Once established, a new lawn will perform better when watered heavily each time with more time between watering rather than being watered lightly each time with less time between watering. This promotes deeper root growth and a healthier stand of grass. As with establishing seeded lawns, sod needs t remain fairly moist for most of the first year. Therefore, make sure that supplemental water is provided during dry spells, even during the winter months.

As your lawn gets older, you will need to aerate it in order to facilitate air movement as well as fertilizer and water intake. We recommend aerating your lawn at least once per year, either in the spring or fall. Depending on the foot traffic your lawn is receiving, aeration may be needed as soon as the second year in the life of your turf.

## WATERING A NEWLY SEEDED LAWN

Newly seeded lawns need special care. Immediately following seeding, it is important that you keep the seed bed evenly moist until most of the seed has germinated (approximately 10-21 days depending on the type of seed). Over-watering will cause soil erosion and may drown the seedlings, whereas drying out between watering may cause the seedlings to die. The first couple of weeks after seeding, until germination occurs, water 2-3 times per day on short running times. Once the new grass is up, the watering may be reduced. Continue watering every day after germination occurs, but only once as opposed to 2-3 times per day. When all the grass is tall enough to mow (3"), watering can be backed off to 2-3 times per week for periods of 15-20 minutes.

Your new lawn can be mowed between three and four weeks after the seeding has taken place. Be sure to let your lawn dry out for at least half a day before you mow in order to fight compaction, rutting, or laying the grass blades over against the soil. Mow in alternate directions without catching clippings for the first several mows. After this period, you may begin to catch your clippings if you choose to do so. Always mow according to the one-third rule. This rule implies that it is always best to mow when you are cutting off no more than one-third of the entire grass blade. Our suggested mowing height for most residential and commercial lawns is 2 ½ inches.

After the grass has been established for a couple of months, a more aggressive fertilizer with a higher nitrogen content should be used to feed the lawn. Sometimes, seedlings will start to turn yellow, which is also a sign that fertilizer is needed. Once you have applied fertilizer after the two month mark, continue to fertilize once every 6 weeks or so thereafter, using a nitrogen heavy fertilizer at the recommended rate. It is best to fertilize in two directions at ½ the recommended rate in order to assure proper coverage and overlap. If you need help with your lawn care program, please contact us for more information. We offer application services that best fit your lawn.

When looking at your newly seeded lawn, don't be alarmed if weeds appear. This is a normal occurrence as weed seeds already existed in your soil before seeding. They blow in from neighboring lawns and fields and later germinate. It is important to note that most weed control chemicals cannot be sprayed for up to 60 days after seed germination. In order to control weeds during this period, mow them before they have a chance to flower and catch all the clippings, which goes against what was said earlier, but this is solely for control of the weeds. If weeds continue to persist past the 60 days or however long you need to wait to apply herbicide (should show on the herbicide label), go ahead and treat with an approved herbicide according to the directions on the label. If you do not wish to take this on by yourself, you can always contact us to perform any form of weed control.

Once established, a new lawn will perform better when watered heavily each time with more time in between each watering rather than being watered lightly each time with less time in between each watering. This promotes deeper root growth and a healthier stand of grass. During dry spells, even in the winter, it is important to water once or twice a week for 20-30 minutes during the first year of establishment. After the first year, the grass becomes hardier and more self-supportive. See "Watering Lawns" in the resource section for more information on watering after establishment.

## WATERING NEW PLANT MATERIAL

Another question that we often receive is, "How often do I need to water my newly planted landscaping and how much water should I apply each time?" The only way to know the true answer to this question is to first look at the soil and determine how much moisture is present, both in the native soil around the plant and in the root ball. When looking at this, it is important to go beyond the surface level and check the moisture 3-6 inches into the ground. In most cases, probing with your finger is a sufficient way of checking, but actual soil probes can be purchased in order to accomplish this task as well, and they will allow you to check deeper into the rootzone. When planting a landscape, it is important to water in the plants with a hose for a short period of time in order to help get them established in the soil. This generates root growth into the native soil profile, and keeps the young root ball moist. Along with watering the plant, you should also water the native soil around the perimeter of the plant, so the roots will want to spread out and find that moisture. Often times, when a plant has been planted in poor soil, the water will not percolate down through the soil profile as well. If the water is only applied at the base of the plant, it can create a bowl of water for the plant to sit in, which is not a healthy environment for the roots. This practice of watering around the perimeter should be used at all times.

After your initial watering, you need to know how much and how often to apply in order to establish the plants. On a newly planted landscape, the goal is to get the plant roots introduced to the native soil in order to establish the plant permanently. Therefore, it is vital that the soil be moist for the first month after planting. Based on several factors, the amount of water that a plant needs in order to remain healthy will vary. This depends on the type of soil, the plant material, and the weather. However, when focusing on establishment only, we can speak in more general terms. On average, a tree will need about 10 gallons of water per week and a shrub, 5 gallons per week. Trees larger than 2 inches in diameter will require an additional 10 gallons of water per inch in diameter. Perennials and annuals will not need as much; a good soaking of the bed or area in which they are planted will suffice. Instead of going and grabbing an empty milk carton, here are some simpler ways to achieve approximate water quantities. For trees, turn the hose on to a trickle and water for 30 minutes in order to reach the 10 gallon mark. For shrubs, a steady stream can be used for just a minute each in order to reach 5 gallons. If clay or sandy soils are present, it is best to apply a little bit at a time. For example, water 5 gallons twice a week, instead of 10 gallons all at one time (shorter periods, shorter intervals between watering). If well-drained loamy soil is present, you can apply more at one time and less frequently (longer periods, longer intervals between watering). If your hose will not reach the target plant, poke a hole in a five gallon bucket and let the water trickle out into the soil ring around the plant.

After your plants have had a month to establish, the amount of water needed will decrease. The roots will continue to grow into the native soil and receive moisture from a broader area. Keep in mind, the larger the plant material, the longer it will take for establishment and the more water the plant will require. Some trees will take up to three years to become established. Dry spells will create an additional need for water as well. After establishment, monitoring your plants is not as tedious. They become more self-sufficient and can find enough moisture on their own in order to survive. If a plant is moisture-stressed after being established, there will be signs of wilting in the foliage, and in extreme cases, leaf drop can occur. However, plants can also show these signs if they are receiving too much water. After you see that the plant is stressed, you will again need to look at the soil to determine if the plant needs water. Looking at the weather will also help you determine if the plant has been receiving an excess of water or if it might be a deficiency that is causing the problem.

## **CARING FOR NEW PLANT MATERIAL**

In general, prune or trim shrubs and trees just after their flowering period and only as necessary. Remove any dead or dying branches and make all cuts clean. In most cases, pruning and trimming is not necessary in the first couple years of establishment because the plant is not growing at a fast rate yet. Perennials can be "deadheaded", even in the first year of planting (this means cutting back the stem of the dead flower). This helps the plant rejuvenate the loss of the flower sooner and promotes new flower growth.

When watering new plant material, it is important to keep the soil moist, even in the winter months. Underwatering can be a problem, but it is always correctable by adding more watering. The bigger problem when watering new plants is over-watering. The roots should never be sitting in water because this can lead to rot. It is always harder to remove too much water than it is to add more water to a plant. Check the soil moisture as often as possible to determine the water needs of the plant. The more often you can check moisture, the less likely you are to add too much water and drown the plant. See "Watering Newly Planted Landscape" in the resources for more information.

All plant material should be fertilized each spring with a well-balanced fertilizer. This will help the plant achieve maximum color, growth, and flowering potential. A fertilizer with a ratio of 14-14-14 usually gives a good season-long food for the plants. The easiest form of fertilizer to spread in shrubs and perennials is a granular that you can shake out of the container. As with any other product, follow the directions on the label.

Insect problems should be corrected with insecticides as they are encountered. Weekly or bi-weekly inspections should keep this in check; however, if insects are a problem, call for the proper treatment. There are different chemicals to use for different types of pests. Chewing insects (i.e. grasshoppers, etc.) can cause major damage to the plant in a short amount of time; therefore, they need to be taken care of as soon as possible. Bi-weekly to monthly treatments may be necessary. To answer any more questions about plant care or to seek help through the use of our services, just shoot us an email or give us a call today.

#### MAINTENANCE PROGRAM INFORMATION

## **Green Select Lawn Care Program**

- **Step 1 Early spring Pre-emergent\*** (March) This application aids in the prevention of annual grassy weeds, such as crabgrass and goosegrass, from germinating in your lawn, while providing the grass with important nutrients that are necessary for a good spring start-up.
- **Step 2 Late spring\*** (May) This fertilizer is equipped with a slow release that will allow it to be affective for a longer period of time and not injure the turf even as the temperatures rise in late spring. Spot Broadleaf Weed Control is applied during this application to control clover, dandelions, chickweed, and other broadleaf weeds.
- Step 3 Summer\* (July) Iron Fertilizer and Micro-nutrients. Easy on turf and will not stress. Helps maintain lush green lawns during the hot dry months when stress on turf is high. Includes Nutgrass/Crabgrass spot treatment, which we will look for while doing the fertilizer application.
- **Step 4 Early fall\* (September)** This application is to aid the turf in recovering from the summer stress by adding a nitrogen only product. The fertilizer boosts turf quality and growth while in prime growing conditions, creating a thicker and more vigorous stand of turf. Spot Broadleaf Weed Control is applied during this application to control clover, dandelions, chickweed, and other broadleaf weeds.
- **Step 5 Late fall\* (November)** For this application we apply another Nitrogen only product. This provides nutrients to the roots over the winter and aids in early spring green up, which produces a thicker lawn and helps crowd out germinating weeds.

## **Other Chemical Applications That Might Be Needed:**

Disease control – Applied throughout the summer to control fungus in the turf.

Grub control – Applied in late May/early June for season long control.

Nutsedge – Treated as post-emergence only. Requires a specialized target chemical for control.

Crabgrass – Post-emergent control if breakthrough occurs.

\*This program is for most lawns. Each individual property may at times need other applications.

Additional applications will be a separate charge from standard lawn care program applications. If you demand more out of your lawn than our **Green Select Program** can provide, please ask about our **Weed and**\*\*All fertilization rates are approximate and may vary depending on the actual lawn.

\*\*\*All **5 Application Steps** must be purchased in order for spot weed control to be a part of your program.

Call or Email us to sign up today (turf@topekalandscape.com or 232-8873)

## **WATERING LAWNS**

Did you know that the average Kansas lawn needs about an inch of water per week during the growing season? Of course, this is an average, so this could vary based on the type of turfgrass that you have and the climate conditions. Some additional watering, on top of rainfall, is almost always needed, especially during the hot months. However, if your lawn is looking stressed, that doesn't necessarily mean that it needs water. The same is true for plants in the landscape. In order to decide if water is actually needed, you must look at the moisture level in the root zone, in other words, in the soil. In fact, adding more water to your lawn when it is not necessary could even hurt the overall health of the turf by creating an environment suitable for disease formation. If you have an automated irrigation system, this is why it is very beneficial to have a rain sensor attached to your system. It will shut the system down for a period during and after a rain, until the water in the sensor has evaporated. This saves you money, conserves water usage, and keeps the plant material from receiving too much water. Feel free to call us regarding any information about sprinkler systems. We can provide a free estimate if you are looking for installation.

After you have decided that your plants or grass might need some water, it is important to look at timing. The best possible time to water is early in the morning. We always advise setting your irrigation controller for early morning watering. During this time of day, there is less moisture lost to wind and evapotranspiration (loss of water from plant tissue) than there would be in the middle of the day. Early to mid-night watering is not recommended either, due to higher humidity levels. This can increase the chance of harmful fungus developing on grass and plant material.

Now that you have your timing figured out, how much water should you put down each time? This is a fairly simple question to answer. In order to come up with the right answer, you must first decide what you are trying to accomplish. Basically, you must decide whether you are trying to soak the root zone (heavy watering) or just get the plant material or grass through the heat of the day (light watering). On your regular schedule of heavy watering, it is always best to water for long periods of time at infrequent intervals (i.e. water for a longer period on an every other day interval vs. watering for a shorter amount of time on an everyday schedule). Now, there are some factors that might prevent you from watering for longer periods of time, such as poor soil conditions or a steep slope, but if your conditions are favorable, this practice should always be applied. The reasoning for this lies in the roots. The more often that water is applied to the surface, the more water there is at the surface. Roots go where the moisture is, so they will just hang out at the surface. On the other hand, watering longer and less frequent will allow the surface to dry. This will cause the roots to stretch deeper into the soil to find the moisture and nutrients needed in order to establish healthy turf. Now, watering more frequently will give the appearance of good turf above the surface, but as soon as a disease, drought, heat, pests, or any other stress is put on that plant material, the results can be devastating. However, the properly watered turf will have the roots necessary to help support it during tough conditions. Light watering is usually done in the middle of a hot summer day, in order to cool the surface of the plant material. Grass can have plenty of water in the roots, but start to wilt and turn blue in the blades if the surface temperature gets high enough. The water inside the grass blades will actually evaporate faster than the roots can keep up with. It is important to only use light watering on an as needed basis.

## **GENERAL MOWING INFORAMATION**

Believe it or not, there are some "dos" and "don'ts" associated with mowing. Most of us know that stressed turf is not a good thing. It can lead to increased risk for disease, pest problems, and eventually cause plant degradation and death. There are a few simple rules to follow associated with mowing in order to give your lawn the best chance to remain healthy.

The first rule to consider is establishing a proper mowing height. Golf courses need to keep grass cut short as a necessity to the game being played on the turf surface. However, most homeowners and businesses do not share that same need. In fact, an average of 2 ½ to 3 inches is usually a good height for most properties. During the summer, it is important to keep your mower set at a higher level, so that more of the grass blade remains to make energy. This will promote deeper root growth and a healthier turf. Mowing higher will also aid in shading the soil from heating up, reducing the risk of weed seed germination. Yet another reason for mowing higher during summer is to prevent moisture loss in the soil. The higher the grass is, the less the soil will be exposed to the hot sun. This will reduce the evaporation of water from the soil and keep more available for the grass.

The second rule to follow is the "One-Third" Rule. This means only cutting off one-third of the total grass blade per mow. It is not necessary to get on your hands and knees and measure this out exactly in order to be effective, but you should monitor your growth regularly. Keep in mind that growth rates will vary according to the type of grass and the season. Cutting too much of the blade off will reduce the amount of food and energy produced by the grass. This will also expose crowns and stalks, which are not parts of the plant that produce the energy. These parts are only meant to be the support structure for the grass blades. The only time necessary for "scalping" turfgrass is when doing an overseed and attempting to rejuvenate a lawn in spring or fall, when growing conditions are ideal.

The third rule is the simplest to follow, but equally important. Always keep your mower blades sharp. Sharpening should occur once a month to a few times per year, depending on how often you mow your lawn, the size of your lawn, and if there is any debris being kicked around by your mower blades. A dull blade causes the tips to fray and creates more of an injury to the turf than a sharp blade. Think of the grass blade as if it were a tree branch. When pruning a tree, you want to create as clean a cut as possible. This will allow the wound to heal faster and decrease the stress put on the tree. The same applies to a blade of grass. Anytime you make a cut, you are creating a wound that has to heal. A cleaner cut will always heal faster than a ragged cut and cause less stress for the grass. Again, increased stress can lead to disease formation, unsightly (brown) grass, turf degradation, and other negative results. Just because your grass is brown, doesn't always mean that you need water or more fertilizer. So, remember to keep an eye on your blades for best results. If you ever need help sharpening your blades, we provide a sharpening service at our shop for a small fee. In addition, if you need help with mowing, we offer weekly professional mowing services throughout the season.

#### **LAWN AERATION**

Is your lawn perfectly healthy and green? Do you have one of the greenest lawns on the block? Well great, then you probably don't need to be doing a thing to it. This is not necessarily true. Even thick, green, well-manicured lawns need core aeration as part of their routine cultural maintenance. Struggling lawns can benefit from this process as well.

"What does core aeration do?", you might ask. "Why do I need to do it even when my lawn looks healthy?" Core aeration pulls 1-3 inch plugs of soil and turf from the lawn and leaves them on the surface to melt back in to the soil profile within a few weeks. Creating these holes helps eliminate thatch, introduces oxygen back in to the rootzone (which is needed for healthy turf), aids in relieving compaction, helps roots spread laterally, and helps water and fertilizers filtrate into the soil profile.

So, you might understand why those are good things, but what is that "thatch" stuff? Thatch is a layer of dead plant material, roots, and organic matter that can create an unhealthy buffer between the plant material above ground and the soil profile. It can block fertilizers, pest control, water, oxygen, and other nutrients from getting to the soil and being taken up by the plant. Taking a plug includes taking some thatch out of the lawn. The plugs also contain soil, which is introduced back into that thatch layer and helps that layer of organic matter decompose at a faster rate.

So whether your lawn is in seemingly good health or looking poor, you can always benefit from core aeration. We recommend aerating at least once a year, whether in the spring or fall. Some lawns with soil that is higher in clay content can even benefit more from a twice a year aeration, both in spring and fall. Contact us for any help you might need with core aeration for your lawn.

## OVER SEEDING, DETHATCHING, AND TURF RENOVATION

After a tough year or period of years, your lawn might not look like it once did, or maybe it never looked like you wanted it to. Typically, a renovation and overseed will be needed when the grass has thinned out in some areas. This can be due to too much shade for the sight, disease killing off some turf, winterkill, grubs, or other factors. Whatever the case, if you want to get your lawn back to a full, thick turf, you will need to go through this process.

The first step in renovation is to scalp down the existing turf and remove any debris (i.e. leaves and clippings), so that the seed you will put down later is open to the air. After that you will want to slice the ground with a vertislicer, which is a machine that resembles a mower and has vertical blades. Some of these machines even come with a box seeder on the back, so you can sow the seed as you slice. You can also slice first, and then add the seed with a drop or broadcast spreader. The slicer creates a groove for the seed to be in contact with the soil, which is needed for germination and proper root development of the seedling. After seeding, you will want to apply a starter fertilizer and water it in. When watering you want to make sure that you apply it for short periods on short intervals between watering. This will keep the surface moist for germination. After germination, keep applying water on this schedule for a couple weeks before returning to a normal long period and long interval watering program. This will help the roots develop from the plant before they have to stretch down in the soil to look for moisture. Contact us for any of your lawn renovation and overseeding needs.

As mentioned in the lawn aeration section, thatch is a build-up of dead organic material in between the above-ground plant tissue and the rootzone. This layer can block important nutrients, water, pesticides, oxygen, and other materials that are meant to be taken up by the plant in order to remain healthy. Dethatching involves a similar machine to the verti-slicer with thicker blades for chopping up the thatch. This is often done along with annual core aeration as an additional thatch eliminator. This is another service that we offer to all of our customers.

#### **LAWN PESTS**

#### Moles in the Lawn?

Have you seen raised turf popping up in your lawn or mulch beds? Does it look like it might be a below-ground tunnel? If this is the case, most likely you have moles present. Even though they have mainly been known to infest lawns that are closer to wooded areas, they have been seen in lawns in the middle of town as well. There are a number of "concoctions" available or home-made remedies offered that claim to achieve success in controlling moles, however, some are more effective than other. There are basically two solutions to eliminate the mole problem in your lawn and/or landscape. First, there are mole deterrents. These products are place in the ground near mole tunnels, creating a vibration that is a nuisance to the pest. Most of the time, this will drive the mole or moles away from the area. The problem with this solution is that the moles then often become someone else's problem, such as your neighbor. To address this problem you must choose the second option, mole poison bait. These are placed directly into the main mole tunnels (the longer tunnels are traveled the most often). The bait resembles the food source of the mole, most often in earthworm form, in order to play the dirty trick. It does not take much of the bait to poison the mole and lead to death. This option is obviously the better of the two if you don't want the moles moving over to your neighbor's lawn. Contact us for more information on mole treatment for your lawn.

## What are Voles anyway?

"Are you sure that is a real animal or are you just making that up?" you might ask. It is in fact, a real animal, and very similar to a mole or a mouse. In fact, it is kind of a hybrid between the two animals. "Why are they bad?" you might say. Well, moles tunnel below the ground and cause damage to your lawn. On the other hand, voles tunnel above-ground and cause your turf to die off in those paths. The tunnels often resemble what most people call a snake path. They live in families, similar to mice, and usually reside in a well-hidden location in the landscape (i.e. retaining walls, areas with dense plant coverage, business sign beds, etc.). Since the damage to turf is usually minimal, this is not as much of an issue. However, voles will eat bulbs, tubers, and other plant material is areas near their residence. Now, if you have an outdoor dog or cat, just like mice, both moles and voles don't have much of a chance to survive, but if you don't then there are options for treatment. Voles are treated with a special pill-form poison that is placed near the residence, where the majority of the paths exist. This placement will ensure that the poison is near a recent food source and readily available to the voles. Even though they are not as prevalent as moles, don't take them for granted, because they can do some unappreciated damage to your landscape. Contact us for proper diagnosis and resolution of your vole problems.

#### Got grubs?

Are you seeing brown spots in your lawn or damaged turf from insect predators (skunks or possums)? You might be doing everything right when it comes to maintaining your lawn, but you can still have white grubs living in your lawn. White grubs are found in the soil where beetles have previously laid their eggs, so they can be a problem at almost any location, no matter how healthy the turf is. During the months of June and later in the summer, they can cause damage by feeding on the roots and thatch layer just below the surface of the soil. This will cause the grass to literally be cut off from the soil surface. There is a threshold, depending on the type of white grub, which a turfgrass can handle. Southern Masked Chafer grubs are smaller, so the grass can tolerate more of them per square foot than May or June Beetle grubs. Once that threshold is breeched, the grass starts to turn brown because it is cut off from any moisture uptake from the roots, and it can be pulled up almost like a piece of carpet. At this point, a rescue treatment would have to be made in order to get rid of the grubs quickly. The ideal application would be a preventative white grub treatment in May. This get in to the system of the grub and causes it to molt prematurely and die before it can do major damage later. This preventative treatment will last through the summer months. Contact us for more information about how we can help with a possible grub problem. We can help with diagnosis and treatment options.

#### LAWN FERTILIZATION

Does your lawn really need anything besides the right amount of water and sunlight in order to be healthy and achieve a rich, green color? Yes, turfgrass research over the years has determined that grass needs a certain amount of macro- and micro-nutrients in order to reach full potential. The macro-nutrients and micro-nutrients are equally important, but the macro-nutrients are found in greater numbers within the plant. Most turfgrass programs focus on applying Nitrogen, Phosphorus, and Potassium specifically because they are usually the least present in our soil. Other macro-nutrients are more available naturally in the soil. Nitrogen creates deep green color and allows the plant to take up energy more efficiently, phosphorus increases root growth, and potassium aids in disease resistance and water retention.

Nitrogen is the nutrient that most fertilizer programs revolve around. It increases the amount of chlorophyll in the plant tissue, which produces more carbohydrates for the plant to use and store. This increases plant production, in turn, increasing the thickness of the turf, which will help keep weeds from germinating. The increased chlorophyll also gives the grass that rich, green color. Different types of turfgrass need different amounts of Nitrogen per year in order to achieve maximum results. It is important to find just the right amount of nitrogen needed for each type of grass. Too much nitrogen can cause blade growth to be too rapid and degrade the root system. It can also lead to increased risk of Brown Patch and Pythium Blight Diseases. Not enough nitrogen can starve the grass and cause a chlorotic plant tissue, which appears as yellowing of the turf, and can aid in development of Dollar Spot Disease. In order to achieve a proper balance, our fertilizer program is specifically geared toward our climate and the types of grass that are grown here in the transition zone. Call us anytime for a free estimate for your lawn and let us take care of it for you.

One question we often hear is, "How do I know if the fertilizer is doing anything?" This is a very viable question, and can be answered by asking yet another question. That question is, "What is the fertilizer that was put down supposed to do?" If it is a pre-emergent, it is designed to keep crabgrass and other annual grasses from germinating in the lawn, as well as give it the nitrogen necessary for stimulated growth. Now, by the end of the summer, the pre-emergent will start to break down and some crabgrass and other grassy weeds might start to germinate, but this is a normal degradation of the chemical. If it is keeping grassy weeds out of the lawn for most of the summer, and stimulating color and growth for up to six weeks, then it is doing what it is designed to do. The same is true for other types of fertilizers, such as straight nitrogen products, which are designed to stimulate growth and color during optimal growing conditions (usually early fall). As long as mower blades are sharp and the grass is receiving the correct amount of water, you should be able to see rich, green blades of grass, a thick stand, and increased plant tissue growth (depending on the variety of grass).

## **DEEP ROOT FERTILIZING**

Are your plants getting older and losing their vigor? Do you have a newly planted landscape and want to achieve the most out of your plants? Whichever may be the case, you would be a perfect candidate for deep root fertilization. In addition to disease and pest checks and the right moisture, plants also need the proper nutrients in order to remain healthy. Deep root is a process of injecting plant fertilizer directly in to the rootzone of the plant. This results in quick and effective uptake of the nutrients into the plant tissue. Fertilizer can help the plant produce thicker and more colorful foliage, bigger and more colorful blooms, and increase overall plant health which will aid in fighting off diseases and pest infestations. Deep root is especially good for plants that reside in poor soils and less-than-optimal locations. We recommend feeding your trees and shrubs at least once per year at a minimum. The best case scenario would be to fertilize in both spring and fall, but the fall deep root is the most common application. Contact us for more information regarding this process.

#### WARRANTY

#### **Plant Material Limited Warranty**

The success or failure of plant materials depends on their care. Good soil, sufficient water and adequate drainage are necessary for plants to live.

- A. All of our plant material is true to name, up to grade, and in a healthy growing condition when leaving the nursery.
- B. For Landscapes designed and planted by Topeka Landscape Inc., we will replace, once, any woody plant material that fails to grow for a period of one year from the planting date, provided plants have had adequate care and have not been damaged.
- C. For all plantings installed by the customer we will replace, once, any woody plant material that fails to grow for a period of one year from the planting date, provided plants have had adequate care and have not been damaged.
- D. The labor to replace plant material is not included.
- E. We are not obligated to replace any plant material due to abnormal weather conditions, neglect, chemical damage, animal damage, vandalism, act of God, or any other conditions beyond our control.
- F. No warranty exists on annuals, perennials, or bulbs.
- G. No warranty on past-due accounts, or jobs that are not paid in full.
- H. Replacement of plant material is subject to availability
- I. There will be a charge for re-staking material, i.e., bark mulch, wood stakes, or earth anchors.
- J. Warranty is valid provided that trees and shrubs have received reasonable care, including proper planting and watering. Plants planted with an irrigation system may need additional watering and care during the hot summer months...Please water regularly, especially when it's hot or windy from April to September. You do not need a "green thumb" to grow plants. They are very easy to grow, but like anything, you have to devote a small amount of time to watering and observing (enjoying) your plants. If you make the commitment to enjoy your garden, your plants will grow!

## **New Lawn Limited Warranty**

- A. We use sod and seed that meets or exceeds nationally recognized specifications.
- B. We cannot be responsible for weather conditions and maintenance practices that adversely affect the lawn.
- C. We will provide, free of charge, up to ten pounds of seed for problem spots caused by adverse weather and will be glad to advise you with respect to proper care.
- D. If immediate spot re-seeding fails, we will work with you to achieve satisfaction. There will be a labor and material charge for re-seeding.
- E. No warranty on past-due accounts, or jobs that are not paid in full.

#### **Lawn Sprinkler System Limited Warranty**

- A. We install quality name brand irrigation equipment, selected as a result of many years of lawn sprinkler installation and maintenance experience.
- B. Topeka Landscape warrantees the sprinkler system for 5 years on all parts and materials, 1 year on labor.
- C. We are not obligated to repair or replace any piece of equipment that is damaged or fails to work due to improper adjustment or operation, neglect, accidents, vandalism, hail, lightning, or any other adverse conditions beyond our control.
- D. No warranty on past-due accounts, or jobs that are not paid in full.

## **Sod Care**

- A. This sod is guaranteed to die if not watered immediately and regularly.
- B. New sod should be watered three times a day for the next two weeks. It should squish when you walk on it.
- C. The first mowing should be when the grass gets four inches tall and cut to three inches. Use a 20 or 21" push mower for the first few mows.
- D. After the first two weeks, slowly taper down the watering to twice a week
- E. After four weeks, fertilize the sod at half the rate recommended on the bag.
- F. Start a regular program of fertilization and weed control.