



## Ask a Turf Specialist: Turf Grass Questions & Answers

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### Table of Contents

|  |   |                            |   |
|--|---|----------------------------|---|
| Turf Grass Establishment .....                 | 1 | Mowing, Watering .....     | 7 |
| Weeds, Diseases, Insects, and Pesticides ..... | 2 | Soil Requirements .....    | 8 |
| Turf Grass Fertilization .....                 | 6 | Turf Grass Selection ..... | 9 |

### Turf Grass Establishment

**I bought a bag of turf grass seeds from local store advertising for ‘quick repairs’. The grass grew for few weeks and then died. What went wrong?**

There are two types of turf grass species, the cool-season and the warm-season. The cool-season grasses will grow well in cooler climates. Some of them would germinate in few days, which is helpful for quick repairs. However, Guam’s tropical climate is not favorable for their growth. Unfortunately, some local stores sell cool-season grass seeds. If seeded, the grass will emerge and grow for about 2-3 months but shortly after will die due to the high soil temperature. If the bag label mentioned the presence of Kentucky bluegrass, creeping bent grass, tall or fine fescue, or perennial or annual ryegrass seeds, do not buy it. These are all cool-season grasses. Warm-season grasses should be the only species used on Guam and the ones that can be seeded are Bermuda grass, centipede grass and zoysia grass.

**I want to establish a new lawn and would like to have Japanese grass, where can I buy seeds?**

Growing Japanese grass from seeds is a practically impossible. The seeds can be collected but have very low germination rate. The most common method to establish Japanese grass is to plug it. Cut mature sods

into 2 inch by 2 inch pieces and plug them 6 to 12 inches apart in a square-like pattern.

**I heard about hydro seeding, is it a method I could use to establish my lawn?**

Hydro seeding consists of spraying a mixture of seeds or stolons, water, fibrous mulch, and fertilizer all at once. This method is very efficient in steep hills to prevent seed and soil erosion. It is also used on big areas. It has several advantages such as improving the moisture level, preventing erosion and extreme temperature, and providing nutrients. It is usually not performed by individuals but is offered through companies. It would be an expensive method to choose for establishing an averaged size lawn.

**What method do you recommend to spread the seeds when I establish my lawn?**

If spreader is used, the desired amount of seed should be mixed with sand, divided in half and applied with calibrated spreader in two passes over the area at right angles to each other. This practice assures uniformity of coverage and prevents accidental skips. The vis-ibility of white sand on the ground reveals any areas of non-uniformity. Small areas such as home lawns can be seeded from a jar with holes punched in the lid. The desired amount of seed can be mixed with white sand. All at once or in several portions, the seed-sand mix is placed in the jar, which acting like a large

salt-shaker, allows for a uniform application of seeds. White sand guides the applicator very efficiently by revealing which spots received more seeds and which received less.

**I found an old bag of Bermuda grass seeds in a shed; can I use them to establish my lawn?**

If the seeds are too old, they will not germinate. Seeds have to be kept in a cool environment and have to be used within 2-3 years to give good results. You should look for their potential to germinate by spacing 20 of them on a wet paper towel placed in a plate. Cover the seeds with a second wet paper towel. Set the plate outside in a shaded warm environment and keep the paper towel moist. Count how many of them germinated after 5-7 days. If 15-20 did, you can use the seeds, they are viable. If 10-14 seeds germinated, you can use them but apply twice the recommended seeding rate. If less than 10 germinated, do not use them, too many lost their ability to grow.

**I heard that turf grass could fill in bare soil. Is this true?**

Yes, some turf grasses, including Bermuda grasses, centipede grass, St. Augustine grass, and zoysia grasses have the potential to fill in bare soil. They produce lateral structures that spread the turf grass in different directions. This spreading is also responsible for turf grass invasion on sidewalks, flowerbeds, and other areas where turf is unwanted.

**My land has a lot of shaded areas and I would like to establish turf grass. Is there a specific type of grass I should use?**

Yes, some turf grasses have the ability to grow better in the shade than others. The most shade tolerant grass for home lawns is St. Augustine grass. If your lawn has several trees preventing the sun from reaching the ground for example, I would suggest using St. Augustine grass.

**Why are turf grasses seeded at different rates?**

Seeds from turf grasses differ in size and weight. A pound of common Bermuda grass for example, contains close to 2 million seeds while one pound of centipede grass has 400,000 seeds. The goal when seeding turf grass is to get around 3,000 seeds per

square foot. To reach this goal, turf grasses thus have to be seeded at different rates. The number of seeds that will germinate and other physiological factors also influence the seeding rate and differs from one type of turf grass to another.

**Can I expect to have a home lawn on Guam that would look as healthy and dense as some of the lawns found in the States?**

With similar care, NO. It is impossible due in part to Guam's tropical climate being ideal for disease, insect and weed development that represents a constant stress on Guam's home lawns. The high percentage of clouds during the rainy period and the short daylight found on Guam also has a negative influence on turf grass growth. In the States, the pest life cycles are slowed down by the colder climate resulting in lower competition with the turf grass.

**I noticed bags of turf grass seeds for sale containing a mixture of different turf types. However, I could not find a bag with Bermuda grass and zoysia grass seeds mixed together. Is it available?**

No. Seeds of different warm-season turf grasses are seldom mixed together due to less uniform colors of turfs, leaf textures, and growth habit. Warm season grasses have to be planted in pure stands. On the other hand, seeds of cool-season turf grasses are often mixed together to provide faster soil coverage and enhance turf grass quality. The bags you saw for sale were mixtures of cool-season turf grass seeds.

## **Weeds, Diseases, Insects, and Pesticides**

**I want to apply a granular pesticide using my drop-type spreader, which is already calibrated for half the rate needed. Can I just set the opening to double the number needed in the previous calibration?**

No. Unfortunately, spreaders are not calibrated linearly and need to be readjusted for any new desired rate. If you do not feel comfortable calculating the needed setting for your spreader, several pesticide labels will have a table showing the right settings for different rates.

**May I keep leftover pesticides to use later?**

Yes, as long as they are stored in a cool and dry place. Do not forget to close the bag or the container tightly and to keep the products out of the reach of children. However, it is best to use the products within a few years of purchase.

**Should I always wear a mask when I apply pesticides?**

It depends. Some pesticides are safe to use without a mask. The label on the container of any pesticide will mention the safety precautions to follow when applying the chemical. You have to always read pesticide labels for personal and environmental concerns.

**My lawn is infested with crabgrass, should I use Roundup to kill it?**

Roundup is non-selective herbicide used to kill all existing vegetation. Its active ingredient, glyphosate, acts on killing both weeds and desired turf grass. If your goal is to renovate your lawn and start from bare soil, it is a good practice to use Roundup. However, if your objective is to eliminate crabgrass only, another herbicide should be used. Your choice will be based on the turf grass present and on the available products. Note that Roundup is a trade name and glyphosate can be sold under other names.

**Could nematode problems be encountered on Guam?**

Nematodes are microscopic wormlike animals living mainly in sandy soils. They have been found occasionally on golf courses around the island. Some types of nematodes can damage turf grass plants by feeding on roots. A yellow thinned out area is visible when nematodes are in an active feeding stage. Their presence can be detected using specific test methods that can be performed at the University of Guam Cooperative Extension Services.

**I have a small lawn and prefer to weed by hand than to use chemicals. It seems like weeds just grow back in areas that I already weeded. How could that happen?**

Some weeds have shallow roots while others have roots growing deep in the soil. It is thus important,

when hand weeding, to remove not only the leaves but the roots as well. I usually recommend using a tool such as a screwdriver to help dig in the soil and reach the roots. Certain weeds can also grow back in weeded areas due to their potential to grow laterally, like some turf grasses do. This lateral growth allows them to spread into bare areas such as the ones you hand-weeded.

**Do I have to calibrate my sprayer before applying pesticides?**

Yes. The proper application of pesticides and fertilizers is possible only with an accurately calibrated sprayer or spreader. Wrong calibration may lead to damaged plants, excess cost, and contamination of the environment. Sprayers should be calibrated every fourth application or so.

**When I want to kill weeds in my lawn, do I have to specifically identify each of them to know which herbicide to use?**

You do not have to identify each of them specifically. However, for control purposes, the majority of the weeds fall in two main categories, the broadleaf weeds and the narrow leaf or grassy weeds. Herbicides would control a diversity of weeds for each category. It is, thus, important to identify the category of the targeted weeds. Broadleaf weeds have diverse shapes and are covered with a net-like vein pattern (ex. wedelia). Grassy weeds have narrow elongated leaves with parallel veins (ex. sandbur).

**I heard about integrated pest management as a method to control diseases, insects, and weeds in turf grass. What does it mean exactly?**

Integrated pest management (IPM) consists of the balanced use of available methods to minimize the harmful effect of diseases, insects, and weeds. Pesticides are just one of many available tools in controlling pests. In IPM, they are used in conjunction with irrigation, fertilization, and mowing to keep the pest damage under an accepted level. The use of IPM leads to a minimal impact on the environment and people.

**What should I do if I have some pesticides left in the sprayer after the application?**

The best practice is to spray leftover pesticides on a different area than the one treated. Find a site that can receive the chemical and spray the excess. You can also ask your neighbors if they would need to apply the same pesticide and spray it on their lawn.

**There are few patches of dead grass on my lawn that I believe are caused by my dog. Is this possible?**

Yes. Dog urination can cause distinct patches of dead grass surrounded by a ring of bright green grass. The ring is caused by an abundance of nitrogen contained in the urine and causing the grass around the dead patches to grow fast. A solution is to thoroughly drench the soil with water just after the problem happened. However, once the grass is dead, it has to be replaced or filled up with runners.

**May I use the same sprayer for my liquid fertilizer and pesticides?**

I would suggest using different sprayers if you have more than one. To apply liquid fertilizers or liquid pesticides on a home lawn, all you need are sprayers of 2-3 gallons which can easily be bought in local stores for not too much money. If you have only one sprayer, the main idea is to clean it properly between usages. Rinsing the container 3 times with fresh water is sufficient. It is also important to spray the water through the tube and nozzle to remove the leftover chemical residues. Proper cleaning is especially important with Roundup herbicide (glyphosate).

**After I applied pesticides, how long should I wait before I walk on my lawn?**

If a liquid product is used, it is safe to return on your lawn when the chemical has dried on leaves. If a granular pesticide is used, it is usually recommended to water it in and again, a few hours are sufficient. However, as a safety margin, I would suggest waiting one day before playing on turf.

**I accidentally spilled gas on my lawn and it is now yellow, what can I do?**

The gas spill killed your grass. I would recommend digging out the dead grass and the first 2-3 inches of

soil and, depending on the size of the area, re-sod or re-plant it. Do not forget to refill the area with soil that was not affected by the spill. The sod or plugs can be taken from the edges of your lawn or from areas that will not affect the overall esthetic of your lawn. If the killed area is very small, just remove the dead grass and let the adjacent grass fill in the bare spot.

**I noticed a black thin slimy residue covering some bare spots in my lawn. What is it?**

You probably have an algae problem. Algae appears as a green to black, slimy scum that develops in poorly drained, shaded, and poorly aerated soils. It can develop on bare soil or on a green lawn. Upon drying, it will form a hard crust that has to be broken. Algae can be controlled with certain fungicides but for a permanent solution, the conditions causing the problem have to be eliminated.

**There are some mushrooms growing on my lawn. Should I treat the infested areas?**

Mushrooms may come up in the lawn after prolonged periods of wet weather. They are often caused by the presence of underground decaying organic matter. Most mushrooms will not cause damage to your lawn. They can however grow in circles of dark green grass, referred to as fairy rings, a turf disease. Some fairy rings can injure the grass by preventing water movement in the soil. There is no chemical available to control this disease. An infested site should be well watered and fertilized.

**If I sprayed Roundup two weeks ago on my backyard, should I plant my grass now or should I wait longer?**

The active ingredient in Roundup called glyphosate is absorbed very rapidly by soil particles. It becomes inactivated when entering in contact with the soil and thus has no residual activity. It is safe to plant your grass within one or two days.

**There is a weed in my lawn that closes its leaves when I touch it. I have very hard time controlling it. Any suggestions?**

This weed is known as mimosa or locally as "sleeping grass", since it closes its leaves when touched. It is a creeping weed, with thorns on its reddish-brown stems

making it vigorous and difficult to pull out by hand. There are few herbicides that will control it without affecting your grass. You could “spot” treat it by using a brush dipped in the Roundup herbicide solution (glyphosate). Note that Roundup will also kill grass plants if touched by the brush. Keeping your lawn healthy would prevent its invasion to a certain degree but the best way to control mimosa is to get a good pair of gloves and pull it out by hand.

**I noticed a cloud of little jumping bugs when I walk on my lawn. Should I use an insecticide?**

**It is very likely that these insects are small leafhoppers.** Leafhoppers can be large and green like the ones we are most familiar seeing, the sharpshooters, but they can also be small like the gray lawn leafhoppers. Homeowners become concern when the small leafhoppers jump and fly in a large cloud in front of their feet. They are not important pests of turf grasses although they can be found in high population in a small area. They can cause light damage such as yellowing and spotting of leaves. I would not apply insecticide unless the damage would become too apparent.

**I noticed white grubs on my lawn following heavy rains, would they damage my turf?**

The white grubs that you observed are part of the shoot-feeding group of insect pests found on turf and are referred to as caterpillars. They can damage turf if present in high populations. If damages are occurring such as chewed leaf bases or irregular brown patches of turf, spray your lawn with an insecticide. Insecticides Sevin (carbaryl) and Dursban (chlorpyrifos) are effective to control these pests.

**Do I have to clean the nozzles of my sprayer on a regular basis?**

Yes. Nozzles can be clogged by pesticide residues and have to be cleaned for proper functioning. It is recommended to regularly soak the screen and tip of each nozzle in water. Remember to verify that each nozzle of your sprayer is functioning before you start applying pesticide. Nozzle screens and tips can be bought individually and replaced if needed.

**I noticed earth worms in my lawn, should I get rid of them?**

Earthworms are wonderful creatures and you should be happy that they established residence in your soil. They will not feed on live plants but will reduce the accumulation of dead organic materials. They excrete small aggregates rich in plant nutrients. Earthworms also contribute to lowering soil compaction, improving soil structure, and increasing water and air infiltration. Your lawn will benefit from their presence.

**Would herbicides kill the desired turf grass if I use them to get rid of weeds in my lawn?**

Most pesticides used for controlling weeds in home lawns are selective meaning they will not seriously affect the desired turf grass when used properly. All herbicide containers have a label that must be read and followed by the applicator to prevent any harm to the desired turf grass as well as to people and the environment. It would be mentioned on the label if particular herbicide has the potential to harm some type of turf grasses.

**I am confused with the words pesticide, herbicide, and insecticide. Could you help me understand each of them?**

The term pesticide comes from the Latin *pesta*, meaning ‘pest’ and *caedere*, meaning ‘to kill’. Pesticides are chemicals used to control pests. They include herbicides, insecticides, and others such as fungicides. Herbicides control weeds, insecticides control insects and fungicides control fungi.

**How could I know the danger associated with using pesticides?**

Pesticide manufacturers are required to print a signal word representing the toxicity category on the label of a product. Products with high toxicity must have the word **Danger** or **Poison** on the label. Moderate toxicity products must have the word **Warning** and low toxicity, **Caution**. If these words do not appear on the label, the product is relatively non-toxic. Always remember to carefully read the label when using pesticides.

## Turfgrass Fertilization

**I wanted to buy fertilizers and realized that there are products from several different companies on the market. Which company would you recommend?**

I do not favor any company in particular. There are several well-established companies that specialize in fertilizers for turf grass. Each of them has excellent products. I recommend that your choice be based on your budget, needs, and local availability of particular product.

**I applied fertilizer and can see the wheel tracks. What should I do to avoid this problem in the future?**

You should set your spreader to deliver at half the desired rate and apply the product two times, at right angles.

**I noticed on my bag of fertilizer the words water-soluble nitrogen and water insoluble nitrogen. What is the difference and which one is better?**

These words are synonyms with “quickly available nitrogen” and “slowly available nitrogen”. The difference is in the rate at which they release nitrogen, the water soluble releasing it faster than the water insoluble. There are advantages and disadvantages associated with both. For a short-term turf grass response, a fertilizer with a higher content of water-soluble nitrogen is preferred. It is usually less expensive than water insoluble nitrogen fertilizer but it has a higher potential to burn turf grass leaves and be lost through leaching. The slow release nitrogen is preferred for long-term turf grass response. They are often mixed in commercial fertilizers to combine their advantages.

**I fertilized my lawn 3 weeks ago and it seems like it did not have any effect on the turf grass growth. Should I fertilize again?**

In general, I would not recommended to fertilize your home lawn again if it was fertilized 3 weeks ago. However, heavy rain could speed up fertilizer break down and washed down some of the nutrients. In this special case, I would suggest to fertilize your lawn again.

**May I use turf grass clippings for composting?**

Even if generally turf grass clippings should be safe to use as compost, I would not recommend this practice. Some pesticide residues will still be present in the leaves following the composting process and could have negative effects if the compost is used as mulch or soil amendment in a vegetable garden for example. Some pesticide labels even mention to not compost the clippings of turf grass treated with certain products. From my point of view, it is better to stand on the safe side than to be sorry.

**Should I use my houseplant fertilizer for my home lawn?**

Fertilizers are labeled with 3 numbers corresponding to the concentrations of nitrogen (N), phosphorus (P) and potassium (K). The ingredients are always in the same order. Nitrogen, the first number on the label, is the most important element to consider when growing turf grass. It is essential for healthy growth. On the other hand, house flowering plants require a fertilizer that is high in phosphorus. Therefore, lawn fertilizer rather than houseplant fertilizer should be used on your home lawn.

**I applied fertilizer on my lawn and the next day, the leaves were yellow, is this normal?**

Fertilizers have the potential to burn the grass leaves. If applied under intense sun for example, they can cause injury to leaves due to dehydration. Chemical particles ‘sit’ on the leaves causing water to move out of the plant. It is thus important to water the grass following the application of fertilizer to prevent an accumulation of the chemical on the leaves.

**Do you recommend buying a rotary or a drop-type spreader to apply dry fertilizers?**

Both spreaders have advantages and disadvantages. Rotary spreaders are useful for fertilizing large areas but are less accurate than drop-type spreaders. Due to their wide reach band, they have to be handled carefully to assure a uniform coverage and avoid fertilizing unwanted areas. Drop-type spreaders are more accurate and result in a more homogenous distribution of the product. However, application skips would seldom happen when fertilizer is applied with rotary spreader.

## Mowing, Watering

### **Is it better to mow the lawn in the morning or later in the day?**

The decision is based on your choice. However, it is recommended not to mow when the lawn is wet. In addition to being messy, mowing a wet lawn would increase weed dissemination, disease transmission, and may result in an uneven cut.

### **What is the ideal mowing height for turf?**

There is no mowing height that would be ideal for all type of turf grasses. Each type performs better under a certain specific height of cut. The recommendation for common Bermuda grass and centipede grass is 1.5-2 inch, St. Augustine grass is 2-3 inches, and 0.5-1 inch for zoysia grass.

### **How often should I sharpen the blade of my mower?**

I cannot give you a specific time period since the sharpening of your mower blade is influenced but how often you mow the grass and by the site conditions. A lawn with rocks or areas of bare soil will require sharpening the mower blades more often than a pure turf grass lawn. A good indication is to look at freshly mowed turf grass leaves. The cut should be clean and straight. If you notice frayed leaves, your blade is dull and should be sharpened.

### **I want to use sprinklers to water my lawn, which type should I select?**

There are no sprinklers that can be recommended as a best choice for all situations. Sprinklers can be portable or set as an underground system and can be manual or automatic. Several brands are available with different patterns of watering and different application rates. When properly design, automatic underground systems are usually more precise than portable ones. The choice would be influenced mainly by your budget and a size of your lawn. Remember that when using any type of sprinkler, the water should be evenly distributed over the surface.

### **Is it a good practice to use a bush cutter to mow my lawn?**

In general, I favor the use of a lawn mower over a bush cutter for mowing a lawn. However, turf grasses such as Japanese grass (zoysia) grow close to the soil, requiring the use of a reel mower. If you do not have access to a reel mower, skilled bush cutter operators can do decent job. When using a bush cutter, the biggest difficulty is keeping a uniform cutting pattern. Small deviation may results in scalping of the turf grass.

### **How often should I mow my lawn?**

As a general rule, turf grass should be mowed often enough so that no more than one-third to one-half of the leaf blade is removed. For example, if Bermuda grass is cut to a height of 2 inches, it should be mowed when it reaches 3 inches tall. The mowing frequency is influence by the growing conditions. Healthy turf will require more frequent mowing.

### **Could clippings be returned to the ground when I mow my lawn?**

In general, I would recommend returning clippings to the ground when mowing. Clippings are a good source of plant nutrients and can supply a large amount of nitrogen to the turf grass. They can be reduced to small pieces by using a mulching mower, which will fasten their decomposition and the release of nutrients. On the other side, clippings can affect the appearance of your lawn or, if in excess, can form clumps and prevent sunlight from hitting the ground. They should be removed in these circumstances.

### **Do you suggest a specific type of mower for a home lawn?**

Yes, mulching mowers, both push and self-propelled types are most popular. Mulching mowers cut clippings to small pieces and incorporate them into the lawn making them invisible. The self-propelled mower may change a sweaty job into an easy walk! If your lawn was large, a riding rotary mower would be preferred, saving you time and effort.

**I water my grass as often as I can; is it a good practice?**

The water needs of your lawn are influenced by several factors such as the type of soil, the environmental conditions, the maintenance practices, and the type of grass. Your grass should be watered based on its needs. A newly seeded turf site should receive frequent (2-3 times per day) and light (10 minutes) watering periods. For a mature turf site, watering periods should be less frequent and longer. Signs that your lawn needs water are the rolling of the leaf blades, the lasting footprints when walking across, and a dry soil. Watering correctly is important and excess of water could weaken the turf and promote disease development.

**How much water should I apply when I irrigate my yard?**

The amount of water needed will vary based on the needs of the turf grass, the soil conditions, and the climate. A rule of thumb is to water just below the root zone. You can use a shovel to look at the profile and see where the water has reached. Watering deeper is not needed and is not beneficial to the plant.

**Soil requirements****There is a spot on my lawn where water accumulates and the grass does not grow well, how can I prevent this from happening?**

A prolonged accumulation of water over a turf area is never desired. It prevents oxygen from reaching the roots and impedes turf grass growth. The situation is often caused by a compacted soil or by a depression in the site. A compacted soil can be corrected using a roto-tiller or a shovel. The idea is to lower the soil density. If the water accumulates due to a depression, it is recommended to fill it with additional soil, level the area, and replant turf grass.

**I want to add soil to my backyard before planting turf grass. May I add sand only?**

Adding sand only is a good practice if your existing soil is not draining well and tends to be compacted. However, if you are satisfied with the conditions of your existing soil, I recommend adding soil

that contains clay and organic material to provide beneficial organisms and improve nutrient retention both of which are lacking in a sand only type soil.

**I heard that I should verify the pH of my soil before I establish my lawn and would like to know why?**

The pH is an indication of soil acidity or alkalinity. Its scale goes from 0-14. A pH of 7 is neutral. An acid soil would have a pH under 7 and an alkaline soil, a pH over 7. Turf grasses are adapted to a wide range of soil pHs but will grow better in soil with a pH of 6.0-7.0. If the pH is too acid, lime can be added to bring it back up. However, if the pH is too alkaline, the process to lower it is very difficult. Soils with high pH should be left as they are.

**I want to enrich the soil of my backyard before planting turf grass. Can I add a layer of peat moss over the existing soil surface?**

I do not recommend adding a layer of organic material such as peat moss over an existing soil. The existing soil and the peat moss have different physical characteristics that would prevent adequate drainage and water movement. It is important to mix the peat moss with the first 4-6 inches of soil already in place to prevent inadequate water movement.

**A contractor advised me to put an underground drainage system when establishing my new lawn. Is it worth the price?**

It is worth to put an underground drainage system if your soil does not have an efficient natural drainage or has depressions where water accumulates. However, make sure that professionals trained in that matter install the system. Soils on Guam are often rich in clay, which can clog the drain pipes.

**I installed a drainage system in my backyard a few months ago. It seems like the grass is greener and growing more intensively over the drain pipes. What happened?**

When you installed the drainage system, you loosened up the soil. Roots grow easily in less compacted soil resulting in healthier plants. Greener turf grass is also often found on drainage pipe areas due to high soil moisture content.



## Turfgrass Selection

### **What makes Japanese grass so rigid compared to other turf grasses?**

Silica is responsible for giving the stiffness to Japanese grass (zoysia grass). Silica is absorbed by the plants from the soil and is located in special cells close to the surface of the grass leaves. Only few turf grasses contain distinct silica cells.

### **I would like to establish my lawn with Japanese grass. Does it matter where I get it?**

Yes and No. If you can get some Japanese grass from a friend's lawn knowing that this is the type of grass you desire, take it, cut in small plugs and plant. However, if your source is unknown, you may find properties of your grass long time after planting. The main differences could be the stiffness and growth rate. If your desire is to get the type of zoysia grass found often on Guam's seashores, very fine leaf texture and very slow growth rate, take grass from seashore locations. Some people do not mind establishing grass for several years as long as it requires little mowing – this one, practically never.

### **I have St. Augustine grass growing under some trees in my lawn, which is mainly composed of Bermuda grass. How would I prevent St. Augustine from encroaching into the Bermuda grass?**

The easiest way, and less visually disturbing for turf grass quality, is to use an edger. I would recommend edging the boarder between St. Augustine grass and Bermuda grass. This is not a permanent solution however; St. Augustine will grow back due to its high vigor in lateral growth.

### **I would like to have a lawn that can withstand high traffic. Which type of grass should I select?**

I would suggest using zoysia grass, which among the warm-season turf grasses has the highest tolerance to heavy traffic. Heavy traffic, however, can lead to soil compaction. Compaction impedes turf grass growth and can be controlled by redirecting the traffic on a regular basis. Do not let people run or drive on the same spots over and over.

### **I got a book on how to maintain turf grasses in New England. May I use these information for growing turf grass on Guam?**

There is obviously information contained in the book that applies to growing turf grass on Guam or any place in the world but they will be quite limited. You need to remember that there are two different groups of turf grasses; the cool-seasons and the warm-seasons. The management practices of these two groups are different as well as the diseases, insects, and weeds that may invade them. Only the warm-season turf grasses can be used in Guam and probably your book does not discuss them extensively.

### **Would very rainy weather have a negative impact on my lawn?**

Yes. High amount of precipitations may saturate the soil preventing roots from getting oxygen thus affecting turf grass growth. A lack of sunlight during rainy days also restricts plant growth. Turf grasses utilize sunlight for energy by transforming it into sugar and would weaken without its presence. Your lawn will thin out under these adverse growing conditions and will be more susceptible to environmental stresses as well as diseases and insect invasions.

### **What conditions should I take into consideration when deciding which type of turf grass to plant?**

A number of factors are to be considered. The site, the intended use of your future lawn, its desired appearance, and the availability of turf grasses on the island will influence your decision. Keep in mind that only warm-season grass such as Bermuda grass, centipede grass, St. Augustine grass, and zoysia grass will grow on Guam. Turf grasses have different saturation of color, different density and texture, which will influence your choice as well. You also have to look at the time, effort, and money you are willing to invest for your future grass maintenance.

### **What are the differences between common and hybrid Bermuda grass?**

Common Bermuda grasses, compared to the hybrid, can be seeded and maintained at higher mowing height, produce a more open lawn, have wider leaves

and more seedheads, and require less maintenance. Hybrid Bermuda grasses need an intense maintenance program requiring frequent mowing and fertilization. They are mainly found on golf courses and are seldom used on home lawns.

**I am establishing a new lawn and would like to have turf that looks like a golf course putting green. Is this possible?**

Unfortunately, it is unrealistic to hope for a home lawn that has the quality of a putting green. Turf grass species used on greens have to be cut every day and very low to maintain a dense cover. They also need intense maintenance and manicuring to provide a desirable playing surface. Advanced turf grass knowledge, a high budget, and specialized equipment are needed to grow turf grass on golf courses.

**I am confused with the words grass and turf grass. Are they the same?**

No, they are not the same but they are very similar. Turf grasses belong to a large family that includes thousands of species - even bamboo and corn are grasses. The word turf grass stands for a grass that persists under regular mowing and traffic. There are no more than forty species of turf grass found on different sites such as golf courses, sport fields and home lawns.

**Can I expect to have a home lawn on Guam that would look as healthy and dense as some of the lawns found in the States?**

No. It is unlikely. Guam's tropical climate is promoting more diseases, insect and weed development which represents a constant hassle for Guam's home lawns. The high percentages of clouds during the rainy period and the short daylight when temperatures are high also have a negative influence on turf grass growth. In the States, the pest life cycles are slowed down by the colder climate resulting in lower competition with the turf grass.

**I noticed bags of turf grass seeds for sale containing a mixture of different turf types. However, I could not find a bag with Bermuda grass and zoysia grass seeds mixed together. Is it available?**

No. Seeds of different warm-season turf grasses are seldom mixed together due to their different colors, leaf textures, and growth habit. They have to be planted in pure stands. On the other hand, seeds of cool-season turf grasses are often mixed together to provide faster soil coverage and enhance turf grass quality. The bags you saw for sale were mixtures of cool-season turf grass seeds.

## For Support

Contact the College of Natural & Applied Sciences' Extension and Outreach at 735-2080 for help or more information. Additional publications can be found on our website at: [www.cnas-re.uog.edu](http://www.cnas-re.uog.edu) under the Publications tab.