

Lawn Solutions Australia Best Practice Guidelines



LAWN
SOLUTIONS
A U S T R A L I A

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Greener Environments

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LAWN AND TURF: A KEY RESOURCE

Residential and commercial lawns and utility-type turf comprise a significant portion of the Australian landscape. These lawns may be at private residences, business establishments, industrial developments, on council properties, in parks, on public or private school grounds, and along roadsides and other utility areas. Lawns and similar turf areas are key resources, as they contribute to open space, provide recreation, add value to properties, and help to protect the environment.

Properly maintained turf provides many functional, recreational, and ornamental benefits, which are summarised below.

Table 1. Benefits of turf.

Functional		Recreational	Ornamental
❖ Dust and mud control	❖ Heat abatement	❖ Safe playing surfaces	❖ Beauty
❖ Entrapment of pollutants	❖ Noise abatement	❖ Low cost surfaces	❖ Increased property value
❖ Environmental protection	❖ Security-visibility	❖ Mental health	❖ Community pride
❖ Fire prevention	❖ Soil loss and erosion control	❖ Physical health	❖ Complements the landscape
❖ Glare reduction	❖ Greenhouse gas reduction	❖ Entertainment	❖ Mental health
❖ Ground water recharge	❖ Storm water abatement		
❖ Slope stabilization			

Adapted from J.B. Beard and R. L. Green, 1994 from The Journal of Environmental Quality, *The Role of Turfgrasses in Environmental Protection and Their Benefits to Humans*

Improperly or poorly maintained lawns are less functional in terms of aesthetics and recreation, may result in inefficient use of valuable natural resources such as water, and are more likely to be sources of environmental contamination.

Best Practice Guidelines (BPG) are intended to maximize the benefits of lawn areas and to minimize the potential for environmental impact that can happen as a result of inefficient, incorrect or irresponsible management practices.

BEST PRACTICE GUIDELINES: AN OVERVIEW

Best Practice Guidelines (BPG) for lawn and landscape turf are economically feasible methods that conserve water and other natural resources, protect environmental quality and contribute to sustainability.

The **BPG** detailed in this document are agronomically sound, environmentally sensible strategies and techniques designed with the following objectives:

- o To protect the environment
- o To use resources in the most efficient manner possible
- o To protect human health
- o To enhance the positive benefits of turf in varied landscapes and uses
- o To produce a functional turf
- o To protect the value of properties
- o To enhance the economic viability of Lawn Solution Australia Group businesses

These **BPG** are intended for use in the management of lawn and turf. While many of the practices delineated can be applied to the management of sports turf and other more intensively used turf, it is not the intent of this document to provide the more specialised **BPG** that such intensive management systems require.

These **BPG** are designed to be used in a wide range of lawn and landscape management situations. Not every **BPG** will apply to every site. Activities and practices may vary depending on management objectives and site parameters. In addition, there may be a specific practice or practices appropriate for an unusual site that does not appear in this document.

BPG for maintenance of lawn and landscape turf areas is most effectively implemented by an educated and experienced turf manager, but can also serve as guidelines for less experienced turf owners and others caring for lawn and landscape turf.

SITE ASSESSMENT

Conduct a detailed assessment of each site

- Accurate site planning with relation to management practices, materials and renovation or reconstruction.
- Problem areas that impact turf health directly affect the potential loss of turf
- Points to consider in a thorough site assessment include:
 - Photo record of property
 - Square meter of turf area being land
 - Drainage
 - Irrigation system
 - The physical condition, texture, and variation of soils on the site
 - A current soil pH and nutrient analysis
 - Permanent fixtures on or in close proximity to the site that create shade
 - Trees, shrubs, gardens and other landscape plantings
 - Driveways and walkways
 - Parking lots and roadways

LAWN AND TURF MANAGEMENT PLAN

In general, the higher the level of quality desired, and the more intense the use of the turf, the higher the level of management needed to maintain a quality surface.

Set realistic expectations based on communication between LSA turf supplier and customer or client.

Record management activities

- ❖ Keep a detailed record of yearly growing conditions and management activities
 - Temperature
 - Humidity
 - Pest problems
 - Pesticide applications and results
 - Fertiliser and other materials applications
 - Soil pH
 - Mowing activity, including height and frequency
 - Uncommon occurrences such as flood, prolonged rain events and dry or drought periods, etc.

LAWN AND TURF SELECTION

Know the strengths and weaknesses of potential species and cultivars and select the right grasses for your site

Lawn Solutions Australia turf brands vary in terms of appearance, appropriate uses, cultural requirements, and stress tolerance. Individual brands provide additional options for effectively matching grasses with growing conditions and desired performance. Information for selection available at www.lawnsolutionsaustralia.com.au

❖ **Lawn Solutions Australia House of Brands**

- Sir Walter soft leaf buffalo
- Eureka Kikuyu
- Nullarbor Couch
- Platinum Zoysia
- RTF Fescue

- ❖ Environmental factors, such as how much sun and shade you have in your garden
- ❖ Correct selection of turfgrass species is fundamental to the success of any management program for turf.
- ❖ Correct turf grass selection should be based on the requirement in terms of water, fertiliser, and pesticides.
- ❖ Some grasses require a higher level of management input (water, fertility, mowing) to perform adequately than do some other grasses.
- ❖ High maintenance species are used where management receives a greater level of attention and effort. Common high maintenance areas include golf courses, athletic fields, parks, and some commercial or residential lawns.
- ❖ If a lower-input management scheme is desired, grasses are available that perform at an acceptable level with a relatively lesser degree of maintenance.
- ❖ Low maintenance turf species are typically adapted to situations with reduced inputs such as mowing, fertility, and irrigation. Areas appropriate for low maintenance species include roadsides, parking lots, industrial complexes, and some commercial or residential lawns.
- ❖ Your budget — saving money on your initial purchase can be a false economy. Investing in a quality shade tolerant variety up-front is a cheaper option in the long-term.

LAWN AND TURF INSTALLATION

TIMING

It is best to have your turf delivered on the day you intend to lay it, especially on warmer days, so be sure to have all your preparation done beforehand. Ring your LSA agent a few days before to place your order.

Be aware that your turf is grown on large paddocks at the turf farm and usually cut the day before delivery. The slabs or rolls are carefully configured in manageable pallets, which are transported by truck to your site. Once cut from the farm, the turf is under stress and will easily dry out; so the sooner it is laid and watered the better.

Wet weather will hinder the turf cutting process at the farm and therefore, availability. When the paddocks are wet it's not possible to use the tractors and cutting equipment, so please be patient.

DELIVERY PLACEMENT

Get the individual turf rolls or slabs delivered as close as possible to the area you are laying.

Step 1 - Start laying

Start laying from the bottom of any sloped areas and always use full rolls or slabs around the edges. An important thing to remember is that you should always lay across the slope if any.

Step 2 - Stagger the joints

Stagger the joints, a bit like brickwork, so they don't line up. This helps prevent drying out and soil erosion caused by heavy rain on sloping ground. If the joints all line up, rain can build up like a small river, taking the soil with it. (a bit like a landslide on a slightly smaller scale). This is particularly important on steep slopes. Butt the turf closely together, avoiding gaps as they can dry out, look a tad ordinary and cause an uneven surface.

Step 3 - Cut the turf

Avoid using small pieces, these will dry out quickly. Do not stretch the turf. Cut the turf with a sharp knife or hedging shears.

Step 4 - Water it in

Water your lawn as soon as it is laid. For large areas, especially on hot days, get someone to start watering or set up a sprinkler whilst the remainder of the laying takes place.

Step 5 - Roll your lawn

Roll the lawn once you have watered to ensure root contact with the soil.

WATERING FOR ESTABLISHMENT

Keep your lawn moist during the establishment period — this is generally about two weeks — but depends on the time of year, weather conditions and where you are located. The key is don't let your lawn dry out! Also, you need to be thorough and systematic, ensuring you water all areas. Watering 4 times a day in warm conditions is quite normal. For example;

- ✓ Early morning
- ✓ Mid/late morning
- ✓ Late afternoon
- ✓ Early evening

Now you don't need to flood your lawn just be sure to keep the turf and immediate underlying soil moist. Your lawn will let you know if it is drying out by its appearance and behaviour. The leaf blades will start to curl, shrivel and dry out so you'll know when it needs a drink.

HOT CONDITIONS

During hot conditions, especially if it is windy the lawn will dry out very quickly and more watering may be required.

IRRIGATION

The best way to water is by overhead irrigation, in fact to establish a new lawn; overhead watering is the only way. Portable sprinklers attached to the end of a hose are cheap and efficient. Just move them around the lawn as required. A tap timer will ensure you don't leave the water on for too long and wastewater.

An in-ground, pop-up irrigation system takes it a step further, this can be connected by a manual tap timer, or a computer controlled timer that is programmed to run as required. Hooking up a pop-up system to a rain tank and using recycled water is the most environmentally friendly and cost effective method.

GREY WATER

Grey water is the wastewater from washing machines, laundry tubs, baths, showers and wash basins. It does NOT include wastewater from the toilet, dishwasher or kitchen sink, as these can contain unwanted solids and potentially unhealthy nasties. Grey water can be used on the garden and lawn either by bucket or a grey water re-use system. This is a good way to recycle your grey water, reduce pressure on grey water waste systems and also save on valuable drinking water, as well as money. If you want to use grey water, be sure to use friendly, suitable detergents that won't harm your plants and lawn. Speak to a specialist in your area for more information.

UNDERGROUND WATER

If you live in sand belts such as Perth, a bore or a spear can tap into underground water. Contact your local council to see if underground water is available in your area.

LONG TERM WATERING FOR ESTABLISHED TURF

Your choice of lawn, where you live, and your desired look will pretty much decide your long term watering schedule.

How often you need to water your lawn will depend on a few issues such as:

- The climate in your area and the season;
- Water restrictions;
- Access to and cost of water;
- Your soil type and its ability to absorb and hold water;
- Lawn variety and its drought tolerance;
- Environmental factors such as how much sun, shade, wind or heat there is in your garden and your area;
- The health of your lawn.

LESS FREQUENT DEEPER SOAKINGS

One thing all the experts agree on is that less frequent, deeper watering is the way to go, rather than regular shallow watering. The same theory applies to the plants in your garden. By watering less frequently, for longer you get the water deep down into the soil, which encourages a stronger and deeper root system that is better equipped to deal with dry periods. This takes a little bit of lawn training and for newly established lawns should be done gradually. As the water drains through the soil profile the roots seek it out, and over a relatively short period during the growing season you develop a good and proper root systems regardless of your lawn variety, but lawns with a natural drought tolerance, such as Sir Walter, will respond to this the best and require less overall watering.

WHEN TO WATER

Early in the morning is the best time to water to avoid water loss through evaporation. Early morning rather than early evening watering helps prevent the chance of fungal diseases, however, these are more prevalent in cool season grasses and not such an issue with warm season varieties. Once established your lawn should only be watered on an as needed basis, more often on very sandy soils, such as Perth. On the other hand, on the eastern seaboard of Australia where there is usually plenty of summer rainfall – extra watering is often unnecessary.

MEASURING & TESTING WATER

It is important to know how much water you are putting on your lawn to ensure you give it enough to fill the soil profile sufficiently, but also don't waste water by watering for too long. As a rough rule of thumb you should give your lawn enough water to soak the root zone.

There are a few methods to test how much water you are delivering and if it is getting down far enough

PROBING

A soil probe is designed to take a small cylinder or plug of soil so you can get a good look at a deep cross section and see how deep the moisture is penetrating. If you are a serious lawn enthusiast, a piece of equipment like this is a wonderful accessory to have in the shed. There are also electronic probes available.

If you don't fancy getting one of these more specialist instruments, a long screwdriver can be used instead. Push it into the soil and see how far it goes in. *TAKE GREAT CARE NOT TO HIT ANY CABLES OR IRRIGATION PIPES!!*

How far you can push the screwdriver into the soil will give you an indication of the moisture content — this is a good way to test for compaction as well. The screwdriver should go all the way in (around 250mm) if it only goes in a little way, there is not enough moisture in the soil and/or the soil is compacted and any water will struggle to get into the soil. Bare in mind this will always be easier in sandy soils due to their open structure, so a bit of common sense is required.

MEASURING WATER SUPPLY

USING THE WATER METER — TOWN WATER USE. Whether you are using a hand held hose, mobile sprinklers or fixed sprinklers this method can be used:

1. First write down the meter reading
2. Water the lawn for an hour
3. Re-read the meter and deduct the first reading from the second
4. Divide the amount of litres used by the square metres of watered lawn area. You will now have the water delivery rate per hour in millimetres for the area you have watered.

If you are using a hose-mounted mobile sprinkler that you move around the lawn, you need to multiply the water usage over the hour for one position by the number of positions, to water the entire lawn. This will give you the total water usage. Next divide the total water usage by the total lawn area.

To speed the process up, water your lawn for ten minutes, multiply the water usage by 6 to get the hourly usage, or multiply by 3 for half an hour.

To get an accurate reading, make sure no other water is being used (dishwasher, washing machine, shower, etc.)

OVER WATERING

Over watering is a silly mistake that is unfortunately made far too often. There is no need to water your lawn for the sake of watering. Your lawn will usually tell you if it needs watering, just look for the tell-tale signs:

- If it's wilting or losing colour,
- If the grass stays flat rather than spring back up when you walk on it, then you need to water it.
- During hot weather, if it goes all dry and crusty, and takes on a light brown colour, there's a good chance it needs a drink.

LAWN AND TURF MAINTENANCE

WATER

Less frequent, deeper soakings will train the root system to become more self-sufficient and robust, particularly with drought tolerant varieties. Regular rainfall, such as the Eastern seaboard, you may not need to water much at all. During long periods of dry weather a weekly soaking may be required; please remember to abide by any water restrictions if you don't have access to tank or recycled water. To get the most out of any rainfall, apply a wetting agent, which improves the water penetration to your lawn's roots; there are numerous products available from all local garden or lawn centres.

FERTILISING

Fertilising provides the essential nutrients throughout summer that will keep your lawn looking healthy and strong by supplementing the lawns natural growth and encouraging super strong root systems. Many fertilisers will need to be watered in as soon as possible after application, so check the instructions before starting.

MOWING

Make sure your mower is in good working order and the blades are sharp. With regular mowing you should aim to remove no more than a third of the leaf blade to encourage dense, healthy growth. If you mow too short, it will lead to stress and potential weed invasion. During dry periods, keeping your lawn on the longer side will reduce stress and help save water. Longer grass acts as a sun shade for the soil; this reduces evaporation and shades out the weeds.

WEEDS

As with any time of year keep an eye out for any weeds and remove them before they get out of control, particularly before setting seed. The combination of mowing too low and a lack of nutrients can lead to weed infestation. Once those weeds get out of control, it is virtually impossible to bring things back. Aerating and top dressing can be done during summer, if necessary, but don't leave it until it's too late!

LAWN AND TURF AFTER CARE

Spring is a very important time of year for lawn lovers everywhere. By the end of August or September (depending on where you live), the days will be getting longer and the grass should be getting longer and greener too!

A simple rule of thumb is when the nights get warmer and you no longer need to light the fire or turn on the heater,

It's springtime for the lawn and for your garden. Once the temperatures overnight warm up, soil temperatures increase and your lawn starts to grow. In cooler regions your lawn will come out of its winter dormancy and in the warmer climates your lawn will grow faster. In both cases, mowing frequencies should be closer.

Spring is the ideal time to get your lawn ready for the season ahead and usually involves the following three steps.

SPRING CLEAN YOUR LAWN

Just like your house your lawn will benefit from a good spring clean. During the winter months, when lawn growth slows down and you don't mow as regularly, weeds may grow.

In some older grass varieties you may have to consider spraying weeds out, but if you have a modern type of lawn that competes well with weeds, like a Sir Walter lawn, generally a close mowing will assist in cleaning up the winter weeds. If your lawn is affected by invading grasses it's best that these are selectively removed by hand or with a weed wand.

In any case a good close mowing to knock down weeds and remove unwanted thatch and winter debris build-up is ideal for your lawn when spring growing conditions return.

TIME TO DETHATCH

Some lawn species build up a spongy thatch layer over summer and into the winter period, so when spring returns, it's a good time to give your lawn a close haircut to dethatch it. If you have an older type of lawn, such as couch, you may need to use a scarifying machine (available from most hire outlets), if it's a type of buffalo however, a very low and close mowing will usually reduce the thatch build up. In a lot of areas it can be beneficial to do

this annually, if it's a soft leaf buffalo lawn set your mower to one of its lower settings and really cut it down low — try and reduce it to 25mm or less in one or two passes.

GIVE YOUR LAWN A FEED

Spring is an ideal time to apply fertiliser. Many leading brands provide all purpose lawn food and one that is used or supplied locally will usually do the job well. In a lot of climates it's a good idea to feed your lawn at the start of spring then again in four to six weeks in order to get your lawn ready for the summer ahead. Check the label for application rates.

All other information to support the Lawn Solutions Australia – Best Practice Guidelines is available by visiting:

www.lawnsolutionsaustralia.com.au

www.loveyourlawn.com.au

or contact Lawn Solutions Australia at:

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