Delay spring-cleaning the lawn

In summer rainfall areas, to conserve water, wait until the very end of the dry winter season before you scarify, top dress, aerate and fertilise the lawn. Once fertiliser is applied, the lawn will start growing and will need watering. By waiting as late as possible, the new lawn growth will be irrigated naturally by the summer rains. Aerating improves water penetration. Note that evergreen cool season seed lawns must never be scarified or top-dressed.

Apply the right fertiliser at the right time

- A fertiliser high in nitrogen and low in potassium promotes leaf growth at the expense of root growth. Deep root growth results in a stronger, more drought resistant lawn. When a dry summer is predicted, it is better to use a fertiliser mixture relatively low in nitrogen and high in potassium, such as 3:1:5(26) or 5:1:5 (44)(SR). Apply 30g (half a handful) per m².
- Apply fertiliser at the recommended rate, because any excess will pass through the soil or be washed away with storm water, ultimately polluting natural water sources.
- A healthy lawn is more capable of withstanding longer periods between waterings, so fertilise again in October and January.
- Always water deeply after applying fertiliser to encourage deep roots.
- Fertilise after your December holiday rather than just before leaving.
- If you cut back on watering because of drought, also hold back on fertilising.
- A healthy lawn also better resists pests and disease.
- Avoid the excessive use of pesticides as, like excess fertiliser, they can pollute the local rivers.

Mow frequently but lightly

Cut grass at a higher level than usual to encourage deep roots and drought tolerance. Longer leaf blades provide more shade cover for roots, keeping temperatures cooler at the roots. Set mowers to cut at these heights: kikuyu: 4-6cm; fine grasses (cynodons): 3-4cm; cool season evergreen grasses: 5-7cm. Never remove more than 1/3 of the leaf blade. Grass is weakened if it grows too long between mowings, so mow when the grass is about one-third taller than the recommended height. By doing this, less leaf growth is removed, and the lawn is less stressed thus requiring less water.

TIP: Ensure your mower's blades are sharp. Cleanly cut grass blades are less stressed than those cut with a blunt blade. Cleanly cut grass uses water more efficiently.

Choose the right lawn grass

In summer rainfall regions lawns that go dormant in winter are an excellent Water Wise choice, because they need no watering – or very little watering – during the dry winter months.

Winter dormant lawns are kikuyu from East Africa and indigenous Cynodon species. Kikuyu has thick grass blades and a rougher texture, whereas cynodon grasses have a fine blade and a velvety texture. Indigenous grasses are adapted to local climatic conditions and are less prone to disease.

Aerate the lawn regularly

A well aerated lawn can reduce watering needs by up to 50%. Aeration involves piercing the lawn with a garden fork or a specially designed aeration fork to reduce compaction. When compaction is reduced water is more easily absorbed, and the soil becomes more friable.

Lawns need friable soil for several reasons. Vital nutrients, water, fertiliser, and pesticides can move through loose soil more easily. Grass roots grow deeper and are able to extract nutrients and water from deeper underground. Therefore the lawn needs less frequent watering. Aerated lawns are also more resistant to weed infestation as the grass tends to grow more vigorously and densely.

Recommended cynodon grasses

- For light to moderate frost areas: Silverton Blue (*C. dactylon*), Gulf Green (*C. tranvaalensis* variety) and Tifway (*C. dactylon* x *C. transvaalensis* variety).
- For severe frost areas: Tifdwarf (*C. dactylon* x *C. transvaalensis* variety), Bayview (*C. transvaalensis* variety), Royal Blue (*C. transvaalensis*), Gulf Green (*C. tranvaalensis* variety) and Tifsport.
- For semi-shade areas Silverton Blue (*C. dactylon*).

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Create a Water Wise Lawn

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Lawns and water usage

Lawned areas have long been traditional in South African gardens, but are they really appropriate here? British settlers brought in the idea of lawns – but Britain has an average rainfall of about 1 000mm per year, which falls all year round. South Africa's average annual rainfall is 492mm – and it is seasonal. Large areas of lawn are simply not climate appropriate in South Africa, and the trend is now away from the excessive use of lawn.

Lawn grasses are high water usage plants, so the larger the lawn area, the more water you need. Excessive use of water will cost you more, and mowing a large lawn takes time and effort. Fortunately, there are steps you can take to reduce your water bills and create a lower maintenance lawn area.

Make your lawn small and simple

Taking into account your lifestyle and family requirements, is the existing lawn area really essential or can you reduce it or eliminate it entirely? Eliminate small odd shapes or long narrow pathways of lawn that are difficult to maintain and waste water. Do away with a very curvy lawn shape and make it a circular or oval shape that is better suited to lawn sprinklers and reduced maintenance.

If lawns are not functional, they are water wasters. Lawn on a slope is difficult to mow. Rather cover the slope with Water Wise plants that have roots that will stabilise the soil, such as pig's ear (*Cotyledon orbiculata*), agapanthus, stalked bulbine, plumbago, spekboom, *Helichrysum petiolare*, *Carpobrotus* spp. and trailing vygies.

A rockery on a sloping area makes an attractive garden feature. Incoporate Water Wise accent plants to add interest, such as pink joy (*Crassula ovata*), silver dollar (*C. arborescens*) and stemmed aloes.

Harvest rainwater on the lawn

Keep the lawn fairly level to minimise water run-off. In addition, shape your lawn into a shallow saucer – or a series of saucer-shaped areas - in order to harvest the rainwater from a heavy downpour.

Substitutes for lawn

Replace surplus lawn areas with hard landscaping or Water Wise plants. Patio or pool surround paving can be extended. Replace narrow lawn areas that serve as pathways with paving stones, sleepers and pebbles, gravel or bark chips.

The Water Wise approach is to use permeable hard landscaping surfaces which allow water to penetrate into the soil instead of running off and being lost to the garden beds or out to the road. Examples are gravel used for pathways, and paths of stepping stones interplanted with low water usage ground covers, small pebbles or gravel.

Replace lawn with Water Wise plants

When a bed has been extended in order to reduce the lawn, choose Water Wise small shrubs, perennials and ground covers to fill the gap. Select plants that fit in with the existing water use zone (that is, plant low water use plants next to already existing low water use plants). This is important in terms of irrigation and water saving.

Alternatively, put down pebbles in a section of the now extended border – adding a millstone, a large rock or piece of driftwood can make this part of the border into a focal point.

Rethink shaded lawn areas

The only lawn grasses that thrive in shady areas, for example, under trees, are evergreen tufted grasses. These lawn types are not Water Wise as they require watering throughout the year. To conserve water, plant Water Wise ground covers that are shade tolerant. Water Wise ground covers that tolerate moderate frost and shady conditions include dwarf agapanthus, mondo grass, hen-and-chickens and fairy crassula.

If you must have lawn in a shady area remember that it will require less water than lawn in full sun – adjust your irrigation system to take this into account.

Irrigate lawns efficiently

By irrigating your lawn correctly you can ensure that it still looks good with minimal water. A lawn that is irrigated correctly can withstand drought periods, because the way in which you irrigate your lawn affects its root growth. Water Wise practices recommend irrigating deeply but infrequently. This encourages roots to grow deeper in search of water. Therefore when temperatures rise, the roots are deeper and better protected and can still source water from the deeper layers of the soil.

In summer water the lawn twice a week. Water less in winter, or not at all – once temperatures drop sufficiently the grass goes into a dormant state and therefore requires no water.

To conserve water, delay spring fertilising and watering of a winter-dormant lawn until just before the first spring rains. If you start in August you will have to apply water regularly to the new lawn growth until the rains actually do arrive.

Other tips for conserving water are:

- Adjust lawn sprinklers so that they don't overlap onto paving.
- Lawns in shady areas need less water than lawn areas in full sun. If you have an automatic irrigation system reduce the watering time for shaded areas, or alternatively reduce the size of the nozzles used.

- If possible, avoid having trees in the lawn area. They deprive the lawn of water, especially shallow-rooting trees. Alternatively, shape the soil so that rainwater naturally collects at the base of the tree to provide extra water, and mulch around the tree.

TIP: To find out if the lawn needs watering, step on the grass – if the blades don't spring back from your footprint after 2 minutes, it's time to water.