All About Sodicide: the Why and How of Killing Lawn

Why kill lawn:

- One of the main goals of creating a native plant garden is to reduce the size of lawn because lawns are needy and require a lot of input for very little output. Not only that, lawns damage the environment. Lawns require irrigation, fertilizers, chemicals, mowing and trimming to keep them from becoming weedy, overgrown and unhealthy. There is a negative impact on the environment for each of those requirements. Lawns provide very little to no benefit to birds, pollinators and wildlife.
- Many of the turf grasses that comprise the typical Florida lawn are not native to Florida and/or will out compete the new plantings you have planted.
- For lawn that abuts your trees or shrubs it can be difficult and/or damaging to plants and trees to weed whack and mow around them consistently. Consider expanding the area around the trees into beds of native plants that naturally grow under them.

How to kill lawn:

The following are some of the various methods that are chemical free and organic and that have been proven to help to kill grass by local gardeners. There are more methods, but these are the ones that we can recommend based on experience or research (we haven't tried solarization). Be aware that there are varying compositions of lawn and exotic invasive species in each yard, some that are very resistant to every method. For these persistent exotic invasive turf grasses or plants, there will be on-going weeding due to possible re-emergence. There will also be on-going maintenance (weeding) in every garden, due to the common issue of re-seeding exotic invasive plants from neighboring areas.

MANUAL METHOD:

Most grass and turf can be removed by hand. It is important to ensure all the roots are removed with the grass. This usually involves significant labor. Sometimes, it is very difficult to remove all the roots and some grass may reappear in time. Some gardeners are able to rent and make use of sod-cutters. Sod-cutters don't seem to work on multi-species, weedy type lawns. Sometimes, if you removed a large portion of the soil, top soil is needed to bring the soil back to level it was before. After removing the lawn, wait at least three weeks to see what re-emerges and re-dig these sections before planting.

PROs: organic, economical (sweat-equity), fastest of the methods

CONs: difficult to get all the plant material dug out, removes/disturbs some of the beneficial organics and nutrients in the top soil, additional follow-up required

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SMOTHERING:

This method involves utilizing black plastic sheeting (**not landscape cloth**), preferable 2-6 mil and placing it over the grass in the desired area to prevent lawn from getting sun, a vital element of life. The plastic can be anchored to the ground with large staples or weighted down with anything available. Supplies are possibly available at big box, hardware, landscape supply, or online stores. Plastic should be placed for at least 6 weeks but often times takes longer. Check in after 6 weeks. If there is green, yellow or light yellow plant material then cover for an additional 4 weeks. If there is brown material, what we call "crispy dead" that easily comes away from the ground when gathered, the ground is ready to be planted. Plants can be directly planted into this soil.

PROs: organic, can be done at any time of the year, not very labor intensive

CONs: extended time and patience required, the look of black plastic in yard during process, large use of plastic (possibly re-usable or recyclable if plastic and hasn't been damaged a lot - check with your local recycling centers or bring to our Nursery to pass on to other clients.

SOLARIZATION:

This method works best in summer months and for areas in full sun. Solarization involves utilizing the heat of the sun to bring the ground temperature up to over 100 degrees which can kill unwanted organisms, kill the grass and destroy the weed seed bank that may be present. Use clear plastic sheeting (2-6 mil thick) over the ground. Secure

it to the ground with large staples or other items. Supplies are possibly available at big box, hardware, landscape supply, or online stores. Plastic should be in place for at least 6 weeks. Check in after 6 weeks. If there is green, yellow or light yellow plant material then cover for an additional 4 weeks. If there is brown material, what we call “crispy dead” that easily comes away from the ground when gathered, the ground is ready to be planted. Plants can be directly planted into this soil.

See Gardening Solutions at UFL/IFAS for more information on this method of grass kill.

PROs: organic, can sterilize the soil (kill non-beneficial nematodes, soil pathogens or diseases), can kill seeds that are present from invasive exotic species, not very labor intensive.

CONs: may kill desirable organisms that are present in the ground like mycorrhizal fungi, might not get hot enough in cooler months for method to work well, requires time and patience, the look of plastic in yard during process, large use of plastic (possibly re-usable or recyclable if plastic and hasn’t been damaged a lot - check with your local recycling centers or bring to our Nursery to pass on to other clients.

CHEMICAL APPLICATION:

If you are interested in using conventional herbicides for your grass removal please hire a licensed contractor that can recommend and apply best practices for your particular situation. Please follow recommendations on re-entry to the space and wait time for the installation of your garden.

IMPORTANT FOR ALL METHODS:

If the garden area is abuts the lawn, it’s nice to have a physical barrier between the garden and this lawn/grass area. Some people utilize rock or edging materials. Remember that in Florida, metal rusts, wood deteriorates and plastic cracks quickly. We recommend creating a large buffer area of mulch where grass can be spotted and addressed before it gets into the garden - an extra two feet between the new garden and any remaining lawn areas.

Remember, there is likely to be some on-going maintenance involved no matter what method is utilized.

After your plants are installed in a remediated space, a thick layer of mulch (4 - 6 inches) is the best way to prevent weeds and grass from re-emerging and re-seeding during the establishment period of the plants. Mulch heavily the first year, less so the second (2-3 inches), the third year lightly. After the third year the plantings should be established and large enough to provide shade and root dominance to out-compete pioneering weed species and they will be more self-mulching with their leaf litter.

We do not recommend using conventional landscape fabric, as it is a petroleum product that breaks down over time and ends up as micro plastic in our grounds and water ways. Besides breaking down into tatters over time and visibly showing up as this in the landscape, as it breaks down, weeds and grasses root into it causing any weed and plastic removal to be difficult. Landscape cloth prevents natural leaf litter and mulch from decomposing to form natural nutrition for your native plants. It disturbs the cycle of healthy soil needed for healthy plants that don’t require fertilizers.

In additional to killing lawn, before you install your native plant garden, remove invasive exotic trees and plants from your property as they will persistently reseed invade the garden space.

As always, we are here for you during every step of your gardening adventures. Reach out to us if you need help.

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