PlatinumTE PASPALUM

MYTHS AND LEGENDS

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THE SEASHORE PASPALUM RUMOR MILL

The number of rumors and the speed at which these rumors have spread far exceeds any other warm season grass that is on the market, probably because this grass is relatively new compared with bermudagrass or zoysiagrass. Many comments have been taken out of context from workshops or interviews, and those published statements have certainly been magnified and repeated many times. The comments below are intended to impart some sanity back into what is realistic and what is simply not correct.

Rumor 1: Seashore paspalum is invasive

The answer is basically 'NO'; the turfgrass ecotypes of seashore paspalum have not been recorded as being invasive (weedy tendency to grow into areas where it is not wanted); some of the more coarse leaf textured native types that can be found in most countries could potentially grow into saline wetlands, but there are a significant number of phytotoxic and environmentally safe herbicides than can be used to control this grass species if needed. These turf-type paspalum cultivars are very environmentally friendly and have not been observed encroaching into unwanted lagoons or wet ecosystems even in Hawaii and other similar environments.

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Rumor 2: Seashore paspalum is highly susceptible to disease attack

This warm season grass is no more prone to disease attack than any other warm season turfgrass. Paspalum cultivars differ in their degree of susceptibility or tolerance to certain pathogenic fungi just like any other warm season grass, i.e., hybrid bermudagrass or zoysiagrass. The absolute key to minimizing disease challenges on any paspalum cultivar is to properly manage the grass (irrigation scheduling, proper fertility program and plant nutritional + hormonal balances, cultivation programs) in concert with site specific challenges. An aggressively growing turfgrass is better able to fight against certain pathogens, but when environmental conditions (persistent rainfall, foggy mornings, overly moist soil conditions) overwhelmingly favor an enormous pathogenic fungi population increase, preventative and curative control strategies must be employed to minimize the disease damage. No warm season turfgrass is immune to disease attacks. If persistent disease problems are occurring when managing seashore paspalum, fungicide applications are warranted; but reassess the entire management program and make the necessary management adjustments to minimize disease damage and reduce that fungicide expense.

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Rumor 3: You can irrigate seashore paspalum with ocean water

No, no, no. Seashore paspalum tolerates salinity and very strictly regulates the uptake of toxic salt ions. The specific salt absorption mechanisms are genetically controlled. Seashore paspalum does not phyto-accumulate salt ions or total salts. Therefore, the turfgrass leaves those excess salts to accumulate in the soil. All salts must be properly managed to minimize their potential accumulation in the soil. Failure to properly manage soil salt accumulation can lead to salt toxicity concentrations that can kill seashore paspalum. In summary, the grass can tolerate salinity levels in some cultivars up to ocean level salinity; however, your soils cannot tolerate ocean level salt accumulation and you cannot afford the budget that would be required to manage that level of salinity. Seashore paspalum would eventually be overwhelmed beyond its genetic capability to tolerate the toxic salt ions and would eventually die if those excess soil-accumulated salts are not properly managed.

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Rumor 4: You can conserve 50-75% water when growing seashore paspalum

I am not sure where this rumor started, but it is not realistic to expect that much water conservation, especially when irrigating with saline water. Most reports that I have received from superintendents on various golf course sites indicate about 20-25% savings in water volume compared to hybrid bermudagrasses when using the same irrigation water source. However, as salinity in the irrigation water increases, you will need to do more maintenance leaching to properly manage the potential for salt accumulation in those soil profiles. Additionally, poorly designed irrigation distribution systems result in the need for application of more water volume as salinity increases, resulting in wet and dry spots on the golf course; high water distribution uniformity efficient (DUE) irrigation systems provide the capability to properly manage any excess salts and also conserve water volume at the same time. Spend the money on a good irrigation system so that you have a chance of managing excess salts and paspalum will achieve the performance expectations for the specific site.

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Rumor 5: You can reduce your fertilizer requirements by 50%

Not exactly! With proper site-specific management, you should be able to reduce your NITROGEN fertilizer applications in the 25-50% range. Seashore paspalum has a very low requirement for nitrogen and a very high N uptake and utilization capability. Any excess N that is not used by paspalum is stored, and can predispose the grass to more disease problems since high concentrations make the plant more succulent. Brackish water and recycled/reclaimed effluent contain variable levels of nitrogen and fertility program adjustments must be made accordingly. As salinity in the irrigation water increases, you have more interactions between salt ions and the availability of nutrients, especially micronutrients. Additionally, excess salts affect microbial populations in the upper soil profile that assist in the breakdown of granular fertilizer nutrients. This salt x microbial interaction can affect the actual availability of nutrients for uptake. As a result, liquid fertilizer products may be periodically required to maintain nutrient sufficiency levels in seashore paspalum, and these liquid fertilizers are notoriously more expensive than most granular products.

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Rumor 6: Paspalum greens are too slow for good puttability

Slow greens and inappropriate management at greens height-of-cut are parallel issues. Seashore paspalum is no different than any other warm or cool season greens grass when manipulating greens ball roll speeds. It is different from the hybrid bermudagrasses because of its heavy wax load on the shoot leaves. Additionally, the initial leaves that emerge on paspalum stolons during grow-in from sprig-planting tend to continue increasing in width and length after initial emergence. As the mowing height is reduced down below 1/8-inch or 3 mm, the upper smaller leaves are cut first. Those larger older leaves which are adjacent to the stolons at the soil surface necessitate that you should initially verticut to force additional side branching on the stolons; then you need to shift into a 'manicure' strategy involving frequent grooming, brushing to vertically position leaves, and sand topdressing to eventually get those greens putting surfaces to achieve the desired ball roll speed. All the management strategies that are used on hybrid bermudagrass or creeping bentgrass greens are the same ones that should be used on paspalum greens. You just need to be a bit more persistent and allow more time to manicure those greens surfaces when growing paspalum compared to other greens grasses. Mowing height reductions are not necessarily required to achieve high greens speeds. Fertility program (especially potassium concentration and silicate applications) and irrigation scheduling are both key management strategies to achieving expectations for ball roll on paspalum greens surfaces.

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Rumor 7: The number 1 weed problem in seashore paspalum is bermudagrass

Unquestionably, the number 1 noxious weed in the world is definitely a pest problem in seashore paspalum, mainly because there are no effective herbicides to eliminate it. Most of the herbicides that are phytotoxic on bermudagrass are also phytotoxic on paspalum.

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Rumor 8: Seashore paspalum is shade tolerant

There is a tremendous difference between low light intensity tolerance (from persistently cloudy, rainy, foggy, smoggy-reduced sunlight conditions) and actual shade (in turfgrass situations, this is mainly tree shade) problems. If trees are the primary limitation on the specific site,

there is no turfgrass that will grow without a certain number of hours of sunlight. When you have heavy tree shade, better turfgrass choices are St. Augustinegrass or possibly zoysiagrass. If you have moderate tree shade with exposure to about 4-6 hours of sunlight each day and through all seasons, then seashore paspalum can be used. Seashore paspalum tolerates reduced light conditions better than the hybrid bermudagrasses, mainly because it absorbs a wider spectrum of light wave lengths and utilizes indirect or reflected sunlight better. Paspalum is superior to the hybrid bermudagrasses during prolonged cloudy conditions since it absorbs ultraviolet wavelengths that penetrate cloud cover better than the bermudagrasses.

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Rumor 9: Seashore paspalum has an insect problem

No more or no less than any other warm season grass. Paspalum is more vulnerable to the worm complex (fall army worm, sod webworm, cutworms, grubs) during the planting through grow-in and up to full canopy density time frames than at other times. However, just like any other warm season grass, paspalum can be attacked by any insects when the environmental conditions favor the insect over the turfgrass.

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Rumor 10: Seashore paspalum is more prone to drought-related problems

In general, paspalum cultivars respond differently to drought conditions than the bermudagrasses or zoysiagrasses. Paspalum does not readily transition into a drought dormant state, which is indicative of the bermudagrasses. Bermudas can rapidly adjust to sudden drought stress; paspalum does not adjust as rapidly to sudden drought shock and thus, can be damaged more than the bermudagrasses when this situation occurs. If you gradually reduce water volume and slowly transition into a drought stress period, paspalum can tolerate this transition into drier environmental conditions because of its more extensive root system. Paspalum cultivars differ in their drought tolerance capabilities. Seaweed kelp extract and silicate applications in conjunction with potassium maintained at 3% are key management strategies to transition into increasing drought stress environmental conditions.

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