

Seashore Paspalum Herbicide Management

Careful selection strategies are essential.

by R. R. DUNCAN, Ph.D.

P*aspalum vaginatum* Swartz (seashore paspalum, saltwater couch) is a warm-season, prostrate-growing, perennial turfgrass that is normally found between 30° and 35° N-S latitudes near sea level. The grass spreads by stolons and rhizomes and ranges in leaf texture from fine types (similar to Tifdwarf bermuda) for greens to coarse types (similar to St. Augustinegrass) for roughs. The species is adapted to marshy, brackish conditions, salty/saline soils, and waterlogging-prone areas.

Attributes

Ecotypes have been identified that tolerate 1/8-inch (3 mm) mowing height on greens and higher heights on tees and fairways. Coarse types can be maintained at up to 2 inches (50 mm) or 3 inches (75 mm) as a transition into wetlands, water hazards, or other environmentally sensitive areas. Paspalum has been used for bioremediation of polluted or contaminated soils and water.

Paspalum is one of the most salt-tolerant turfgrasses; ocean water or any type of reclaimed/recycled water can be used for irrigation. This grass tolerates and thrives in waterlogged or boggy low areas; yet some ecotypes have drought tolerance equal to centipede-grass when properly managed.

Paspalum can root equally well into heavy clay soils, sands, mucks, or loams. The grass has a pH adaptability range from 4.0 to 9.8. Nitrogen fertility rates should not exceed 5 lb per 1,000 sq. ft. per year after establishment and grow-in. If ocean water is used for irrigation, rates half that amount are adequate to maintain high turf quality.

Weed Control

Judicious rates and timely herbicide application strategies are essential for environmentally sound management of paspalum for turf from initial establishment/grow-in to long-term mainte-



MSMA (foreground) and Asulox (background) are phytotoxic to seashore paspalum. (Studies by Joe DeFrank on Quality Turf site, Waimanalo, Hawaii.)



Paspalum encroachment (dark green) into bermudagrass can be a potential problem on the golf course.



MSMA damage causes paspalum to turn dark brown, while Tifgreen bermudagrass damage is expressed by turning white.

nance. Preemergent and postemergent herbicides that are noninjurious to paspalum turf are shown in Table 1. Several herbicides that are normally used on other warm-season turf grasses (Surflan, Asulox, Aatrex, Sencor, and Princep) are phytotoxic to paspalum (Table 2).

Crabgrass, goosegrass, and annual bluegrass (*Poa annua*) in paspalum can be controlled with preemergence applications of Ronstar, Kerb, Balan, Pre M (many herbicides may have more than one trade name or similar/slightly different chemical formulations), Barricade, Team, Dimension, or Prograss (Table 3) or postemergent applications of Drive, Kerb, or Dimension. Winter broadleaf weeds can be controlled with Ronstar, Balan, and Gallery (preemergence) or Vanquish (postemergence) in paspalum turf. Nutsedge species can be controlled with postemergence applications of Manage or Basagran (Table 3).

When bermudagrass encroachment into paspalum turf is a problem, preliminary research results indicate that postemergence applications of Prograss + Cutlass (1× rate = 1.5 + 0.75 lb ai/A) may suppress the bermudagrass. Best preliminary results have occurred with applications during spring green-up when temperatures are conducive to active warm-season grass growth. If temperatures are less favorable (< 70° F) for continued bermudagrass and paspalum growth during the spring, Prograss + Cutlass will injure the paspalum. Rates of this herbicide + growth regulator combination as high as 2×-3× may be needed to control bermudagrass encroachment during the summer months, with 2-4 sequential applications.

When paspalum encroachment into bermuda is a problem, preliminary research has shown that Trimec Plus, Trimec Classic, Daconate 6, and Asulox will suppress paspalum growth (Table 2). Multiple applications will probably be needed and more than one type of herbicide in sequence should be considered in the paspalum control strategy. Primo and Acclaim could be included with the above four herbicides to provide a growth regulation effect on paspalum and enhance the herbicidal activity and effectiveness.

Additional research is ongoing at the University of Georgia at Griffin concerning herbicide efficacy, timing, rates, and environmental interactions on paspalum used for turf on greens, tees, and fairways.

Acknowledgments

Funding from the U.S. Golf Association, Golf Course Superintendents Association of America, Georgia Turf Foundation Trust, Georgia Seed Development Commission, and International Turf Producers Foundation is gratefully acknowledged. Additional support has been provided by Lesco Inc. and AgrEvo USA Company. Thanks are extended to B. J. Johnson and Tim Murphy for review and counsel concerning paspalum herbicide research and management.

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Table 1
Herbicides Non-Injurious to Paspalum Turf

Preemergence Applications
*Betasan EC
Kerb WP
Balan G
Dacthal WP
Ronstar G
Pre-M WDG
(Marginal: Goal EC and XL 2G)
Postemergence Applications
Prograss EC
Drive DF/WD
*Trimec Southern SL
Dimension EC
*Super Trimec SL
*Vanquish SL
Manage WG
*Mecomec 4SL
(Marginal: Amine 4SL)
<i>*These herbicides have more than one trade name or similar/slightly different chemical formulations</i>

Table 2
Herbicides Phytotoxic to Paspalum Turf

Preemergence Applications
Ronstar WP
Surflan AS
Postemergence Applications
Asulox SL
*Aatrex WP
*Sencor DF
*Daconate 6 SL
Vantage EC
*Princep WP
Image SL
*Bueno 6 SL
*Trimec Plus SL
*Trimec Classic SL
Turflon ester EC
Confront SL
Acclaim EC
<i>*These herbicides have more than one trade name or similar/slightly different chemical formulations</i>

Table 3
Specific Weed Control Options for Herbicide Use on Paspalum

Herbicide	Chemical Family	Weeds Controlled
<i>Preemergence</i>		
Ronstar G	oxadiazol	Crabgrass, goosegrass, annual bluegrass, winter broadleaf weeds
Kerb WP	amide	Annual bluegrass
Balan	dinitroaniline	Annual bluegrass, winter weeds, crabgrass (short season control)
Pre-M WDG*	dinitroaniline	Crabgrass, goosegrass, annual bluegrass
Barricade WDG	dinitroaniline	Crabgrass, goosegrass, annual bluegrass
Team G	dinitroaniline	Crabgrass, annual bluegrass
Dimension	pyridine	Crabgrass, goosegrass, annual bluegrass
Prograss EC		Annual bluegrass
Gallery WG	benzamide	Annual broadleaf weeds
<i>Postemergence</i>		
Kerb WP	amide	Annual bluegrass
Dimension EC	pyridine	Crabgrass (early)
Drive		Crabgrass
Prograss EC		Bermuda (in combination with Cutlass)
Vanquish SL	benzoic acid	Broadleaf weeds
Manage WG	sulfonylurea	Purple/yellow nutsedge
Basagran T/O	benzothiadiazole	Yellow nutsedge
<i>*This herbicide has more than one trade name or similar/slightly different chemical formulations</i>		

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