



Complete Source Guide for Worldwide Applications of WARM SEASON TURFGRASSES • COOL SEASON TURFGRASSES • NATIVE GRASSES

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A tlas Turf International specializes in bringing turf solutions to clients across the globe. As the leading supplier of quality vegetative and seeded turfgrasses worldwide, Atlas Turf has a history of successful involvement in golf and sports field projects spanning over 80 countries.

Our success is due to a combination of elements including people, products, service, and skill. Our experienced and knowledgeable staff offers the best turfgrass products available, working with clients to provide the precise solution for each unique project. Beyond the sale, Atlas Turf manages complex distribution channels to deliver our products safely to locations worldwide.

Offering the most sought-after, genetically pure, licensed and certified turfgrasses, Atlas Turf stands behind its quality collection of products. Groundbreaking new releases and time-tested grasses make up our warm season selections, and by partnering with Pure Seed, we offer high-performing cool season turfgrasses as well. Rounding out our product line is a wide selection of native grasses.

At Atlas Turf, we believe that strong foundations are built on smart choices. Choosing the right product, aligning with the right people, and focusing on quality and value result in successful projects and satisfied clients. We look forward to the opportunity to assist you.

In A. Helmen III

John Holmes Atlas Turf International Limited

2023 Ryder Cup at Marco Simone Golf & Country Club in Rome, Italy featuring Pure Dynasty Seeded Paspalum, Pure Distinction Creeping Bentgrass, and PureLinks Fescue



Point Hardy Golf Club at Cabot Saint Lucia featuring Pure Dynasty Seeded Paspalum wall-to-wall.





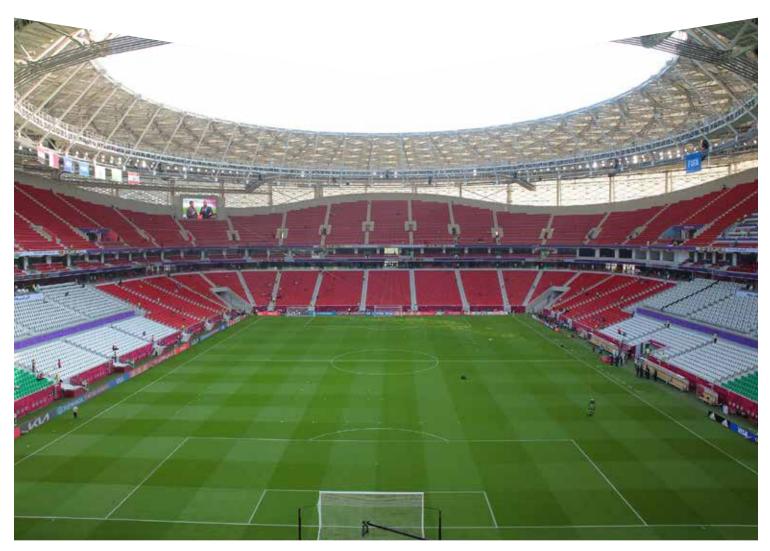
2023 Ryder Cup at Marco Simone Golf & Country Club in Rome, Italy. Photo credit: Jacob Sjoman





WARM SEASON TURFGRASS PRODUCTS

Atlas Turf Seashore Paspalums





Platinum TE[®] Paspalum, developed by Dr. Ron R. Duncan, is an environmentally sustainable, salt-tolerant turfgrass with superior appearance, playability, and maintenance benefits. Adaptable to a wide range of mowing heights, Platinum TE is perfect for installation tee to green.

Applications



Product Features

- Superior salt tolerance
- Shiny, exceptionally dark green color
- Very fine leaf texture
- Outstanding canopy density
- Excellent low light tolerance
- Excellent disease resistance

Characteristics

Color	Dark Green
Fall Color Retention	Excellent
Spring Green-Up	Excellent
Establishment	Rapid
Wear Tolerance	Excellent
Injury Recovery	Very Good
Heat Tolerance	Very Good
Cold Tolerance	Good
Shade Tolerance	Very Good
Drought Tolerance	Very Good
Salt Tolerance	Excellent
Mowing Heights	0.08" – 3" (2.03 mm – 76.2 mm)





PLATINUM TE® PASPALUM PROJECTS WORLDWIDE

AFRICA

Al Houara Coastal Resort in Tangier, Morocco (Golf) Ancient Sands in Hurgada, Egypt (Golf) Casa Green Golf Club in Casablanca, Morocco (Golf) Hacienda Bay Golf Resort in Cairo, Egypt (Golf) Mazagan Golf Club in Casablanca, Morocco (Golf) New Giza in Cairo, Egypt (Golf) Noria Golf Club in Marrakech, Morocco (Golf) Red Sharm Golf Club in Cairo, Egypt (Golf) Sokhna Golf Club (El Ein Bay and Little Venice courses) in Cairo, Egypt (Golf)

ASIA

Agile Golf & Country Club in Zhongshan, China (Golf) Al Bayt Stadium in Doha, Qatar (Sports) Alfala Palace Golf in Dubai, United Arab Emirates (Golf) Al Janoub Stadium in Al Wakrah, Qatar (Sports) Al Rayyan Stadium in Doha, Qatar (Sports) Al Saad Stadium surrounds in Doha, Qatar (Sports) Al Sailiya Sports Club in Doha, Qatar (Sports) Al Sulaiteen Agricultural & Industrial Complex (SAIC) in Doha, Qatar (Landscape) Al Thumama Stadium in Doha, Qatar (Sports) Al Wahda Stadium in Doha, Qatar (Sports) Al Zorah Golf Club in Ajman, United Arab Emirates (Golf) Anantara Banana Island Resort in Doha, Qatar (Golf) Aguella Golf and Country Club in Bangkok, Thailand (Golf) Arabian Ranches Golf Club in Dubai, United Arab Emirates (Golf) Aspire Zone in Doha, Qatar (Sports) Ayla Oasis and Resort Golf Club in Agaba, Jordan (Golf) Begonia Bay in Hainan Island, China (Golf) Binh Tien Golf & Beach Course in Ninh Thuan, Vietnam (Golf) Bo'Ao Golf Club in Hainan Island, China (Golf) Bombay Presidency Golf Club in Mumbai, India (Golf) BRG Legend Hill Golf Resort in Hanoi, Vietnam (Golf) China Metallurgical Haixi in Fujian, China (Golf) Clearwater Bay Golf & Country Club in Hong Kong (Golf) Dara Sakor Golf Club Mountain Course in Cambodia (Golf) Diamond Bay Resort in Nha Trang, Vietnam (Golf) Doha Golf Club Training Pitches in Doha, Qatar (Sports) Dong Chuong Golf Club in Ninh Binh, Vietnam (Golf) Dongnan HuaDu Sports in Zhangzhou City, Fujian, China (Golf) Dragon Do Son Golf Links in Hai Phong City, Vietnam (Golf) Dragon Lake Golf Club in Guangzhou, China (Golf) Dubai Hills in Dubai, United Arab Emirates (Golf) The Dunes Golf Club in Hainan Island, China (Golf) Education City Stadium in Doha, Qatar (Sports) Education City Golf Club in Doha, Qatar (Golf) Emaar South Golf Course in Dubai, United Arab Emirates (Golf) FLC Quy Nhon Golf Links in Binh Dinh, Vietnam (Golf) Fuzhou Silver Cloud Golf Club in Fuzhou, Fujian, China (Golf)

Genzon Golf Club in Shenzhen, China (Golf) Guangzhou Maofengshan Golf Club in Guangzhou, China (Golf) Hainan Tianhong in Hainan Island, China (Golf) Heshan Golf Club in Heshan, Guangdong, China (Golf) Jurong Country Club in Singapore (Golf) Khalifa International Stadium in Doha, Qatar (Sports) Laguna National Golf & Country Club in Singapore (Golf) Lao Cai Golf Club in Lao Cai, Vietnam (Golf) The Legends Golf Club - Dubai, United Arab Emirates (Golf) Lion Lake Country Club in Guangdong, China (Golf) Longmu Bay Golf Resort in Hainan Island, China (Golf) Lusail Stadium in Doha, Qatar (Sports) Mission Hills Haikou in Hainan Island, China (Golf) Muong Thanh Dien Lam Golf Course in Nghe An, Vietnam (Golf) National Service Resort & Country Club in Singapore (Golf) Ningbo Meishan in Zhejiang, China (Golf) Puerto Azul Resort in Cavite, Philippines (Golf) Qatar University in Doha, Qatar (Sports) Qiddiya Faldo Course in Riyadh, Saudi Arabia (Golf) Queens Harbour Golf & Village in Cebu, Philippines (Golf) Ras Abu Aboud Stadium in Doha, Qatar (Sports) Ras Al Hamra Golf Club in Muscat, Oman (Golf) Rayhan Hills Golf Club in Karachi, Pakistan (Golf) Royal Gems Golf in Nakhon Pathom, Thailand (Golf) Rumanza Golf Club in Multan, Pakistan (Golf) Sanya Institute for Golf Training in Hainan Island, China (Golf) Seletar Country Club in Singapore (Golf) Sembawang Country Club in Singapore (Golf) Sentosa Golf Club in Singapore (Golf) Shenzhen Golf Club in Shenzhen, China (Golf) Tanah Merah Country Club in Singapore (Golf) Tamin Air Base Golf Club in Al-Shahaniya, Qatar (Golf) Twin Doves Golf Club in Binh Duong, Vietnam (Golf) Villa My Son Golf and Resort in Binh Thuan, Vietnam (Golf) Vinpearl South Hoi An in Quang Nam, Vietnam (Golf) Violet Sports Park in Fujian, China (Golf) Vu Yen Island Golf Course in Hai Phong, Vietnam (Golf) Wadi Safar Golf Course at Diriyah Gate in Diriyah, Saudi Arabia (Golf) West Coast Golf Club in Hainan Island, China (Golf) Yas Acres Golf Club in Abu Dhabi, United Arab Emirates (Golf) Yas Island Links in Abu Dhabi, United Arab Emirates (Golf) Zhuhai Lakewood Golf Club in Guangdong, China (Golf)

BAHAMAS & CARIBBEAN

Baker's Bay in Abacos, Bahamas (Golf) Barbuda Ocean Club in Barbuda (Golf) Canouan Golf Club in The Grenadines (Golf) Corales Golf Course at Punta Cana Resort in the Dominican Republic (Golf) Cotton Bay Club in Eleuthera, Bahamas (Golf)

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Hard Rock Café Golf Club at Cana Bay in Punta Cana, Dominican Republic (Golf)

Punta Espada Golf Club in Punta Cana, Dominican Republic (Golf) Royal Blue Golf Course at Baha Mar Resort in Nassau, Bahamas (Golf)

CENTRAL AMERICA

The Black Pearl at Pristine Bay Resort in Roatan, Honduras (Golf) Buenaventura Golf Club in Farallón, Coclé, Panama (Golf) El Encanto in El Salvador (Golf) Guacalito de la Isla in Guacalito de la Isla, Nicaragua (Golf) Indura Beach and Golf Resort in Honduras (Golf) San Buenas Golf Resort in San Buenaventura, Costa Rica (Golf) Santa Maria Golf & Country Club in Panama City, Panama (Golf) Zapotal Golf & Beach Club in Costa Rica (Golf)

EUROPE

Camiral Golf & Wellness in Girona, Spain (Golf) Condado de Alhama Golf Club in Murcia, Spain (Golf) Kilada Country Club in Kilada, Greece (Golf) La Torre Golf Resort in Murcia, Spain (Golf)

NORTH AMERICA

(select projects) Baylands Golf Links in Palo Alto, CA (Golf) The Bear's Club in Jupiter, FL (Golf) The Breakers Ocean Course in Palm Beach, FL (Golf) Diamante El Cardonal in Cabo San Lucas, Mexico (Golf) Fripp Island Ocean Course in Fripp Island, SC (Golf) Kansas City Royals Stadium in Kansas City, KS (Sports) Kiawah Ocean Course in Kiawah, SC (Golf) Longboat Key Club in Longboat Key, FL (Golf) Mayan Palace Club in Puerto Vallarta, Mexico McKalla Place Austin FC Stadium in Austin, TX (Sports) Minute Maid Park – Houston Astros in Houston, TX (Sports) Montecito Club in Santa Barbara, CA (Golf) The Old Collier Club in Naples, FL (Golf) PNC Stadium – Houston Dynamo FC, Houston Dash, Texas Southern Tigers in Houston, TX (Sports) Reflection Bay Golf Club in Henderson, NV (Golf)

Sloan Park – Chicago Cubs Training Facility in Mesa, AZ (Sports)

SOUTH AMERICA

TPC Cartagena at Karibana in Cartagena, Colombia (Golf)

PURE DYNASTY Seeded Paspalum from Pure Seed

Pure Dynasty[®] Paspalum, developed by Pure-Seed Testing, is a seeded blend technically advanced to deliver an excellent turf surface that is tighter, better, faster, and stronger. Its patented water-absorbent coating enhances establishment and guards against environmental pressures.

Applications



Product Features

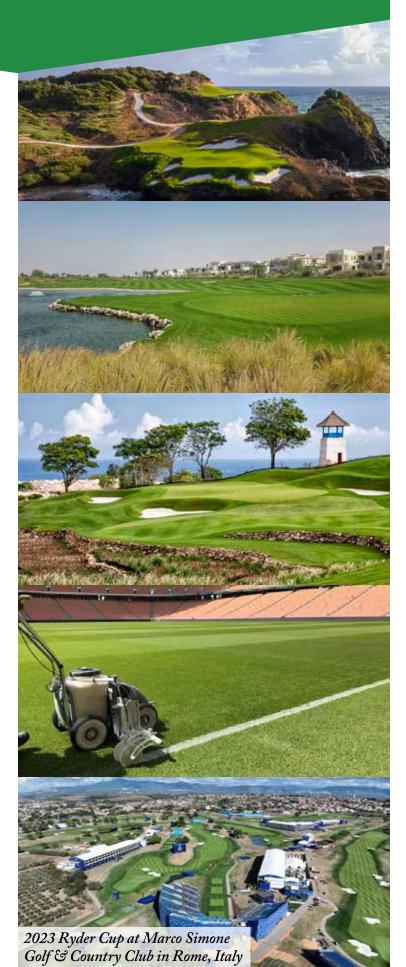
- Superior salt tolerance
- Quick germination and faster establishment
- Tighter density
- Improved disease resistance
- Stronger overall performance
- Reduced mowing heights for wall-to-wall applications

Characteristics

Color	Dark Green
Fall Color Retention	Excellent
Spring Green-Up	Excellent
Establishment	Rapid
Wear Tolerance	Excellent
Injury Recovery	Very Good
Heat Tolerance	Very Good
Cold Tolerance	Good
Shade Tolerance	Very Good
Drought Tolerance	Very Good
Salt Tolerance	Excellent
Mowing Heights	0.08" – 3" (2.03 mm – 76.2 mm)

The recommended seeding rate for coated seed is 65-130 pounds per acre (73-146 kilograms per hectare).





PURE DYNASTY[®] SEEDED PASPALUM PROJECTS WORLDWIDE

AFRICA

Amarilla Golf & Country Club in Tenerife, Canary Islands Garden City Golf Estate in Port Harcourt, Nigeria Golf Costa Adeje in Tenerife, Canary Islands Golf de Bourbon in Reunion Island Golf de Mogador in Essaouira, Morocco Golf du Soleil in Agadir, Morocco Ivory Coast Football Complex in Côte d'Ivoire La Réserve Golf Links – Heritage Resorts in Mauritius Mont Choisy Golf Club in Mauritius Soma Bay in Hurghada, Egypt Summit Hills Golf Course in Calabar, Nigeria Yaoundé Cameroon Soccer in Cameroon

ASIA

Ahli Soccer Club in Dubai, United Arab Emirates Al Badia Golf Club in Dubai, United Arab Emirates Augusta Golf Village in Bangalore, India Blue Sky Golf Club in Manila, Philippines Bukit Pandawa Executive Golf Club in Bali, Indonesia Crowne Plaza Salalah Marco Polo Golf Course in Salalah, Oman Doha Golf Club in Doha. Oatar Dubai Hills Golf Club in Dubai, United Arab Emirates Emaar South in Dubai, United Arab Emirates FLC SamSon Golf Links in Thanh Hoa, Vietnam Hyderabad Golf Club in Hyderabad, India Jebel Sifah Golf Club in Muscat, Oman Katana Golf Resort in Angeles, Philippines King Abdullah Sports City Stadium in Jeddah, Saudi Arabia The Legends Golf Club in Dubai, United Arab Emirates Long Bien Golf Club in Hanoi, Vietnam Muscat Hills Golf & Country Club in Muscat, Oman Nansha Golf Club in Guangzhou, China Ruwais Golf Course in Abu Dhabi, United Arab Emirates Royal Greens Golf & Country Club at King Abdullah Economic City in Jeddah, Saudi Arabia Saadiyat Beach Golf Club in Abu Dhabi, United Arab Emirates Shurei Country Club in Okinawa, Japan Subic International Golf Club in Subic Bay, Philippines The Sultan's School in Muscat, Oman Sunshine Valley Golf Club in Taipei, Taiwan Tan Son Nhat Golf Course in Ho Chi Minh City, Vietnam Velaa Golf Academy in the Maldives Yas Acres Golf Club in Abu Dhabi, United Arab Emirates Yashi Riverfield in Bangkok, Thailand Zayed Sports City in Abu Dhabi, United Arab Emirates

EUROPE

Altaona Golf & Country Village in Murcia, Spain Club de Golf Terramar in Barcelona, Spain Desert Springs Resort and Golf Club in Almeria, Spain El Plantío Golf Resort in Alicante, Spain Kilada Country Club in Kilada, Greece Marco Simone Golf and Country Club in Rome, Italy Mosa Golf Club in Murcia, Spain Son Gual Golf Resort in Mallorca, Spain Villareal CF Training Facility in Villareal, Spain

NORTH AMERICA (select projects)

Baker's Bay Golf & Ocean Club (landscape) in Abacos, Bahamas Belle Terre Country Club in LaPlace, Texas, USA Belmond Cap Juluca (landscape) in Maundays Bay, Anguilla Blue Bay Golf Club in Curação Cabot Saint Lucia Point Hardy Golf Club in Saint Lucia Cap Cana Las Iguanas Golf Club in Punta Cana, Dominican Republic Casa de Campo in La Romana, Dominican Republic Cedar Valley Golf Course in Antigua City of Yuma Parks and Recreation in Yuma, Arizona, USA Chileno Bay Golf & Beach Club in Cabo San Lucas, Mexico Country Club Playa Palmas in Campeche, Mexico Dorado Beach Resort in Dorado, Puerto Rico Five Forts Golf Club in Bermuda Four Seasons Resort in Peninsula Papagayo in Guanacoste, Costa Rica Hidden Lakes Golf Club in New Smyrna Beach, Florida, USA La Cana Golf Course at the Punta Cana Resort and Club in the Dominican Republic L E Ramey Golf Course in Kingsville, Texas, USA Nauka Ritz-Carlton in Nayarit, Mexico Pebble Creek Country Club in College Station, Texas, USA Playa Grande Golf Club in the Dominican Republic Sandals Grande St. Lucian Golf Course in Gros-Islet, Saint Lucia Southern Oaks Country Club in Abbeville, Louisiana, USA St. Andrews South Golf Club in Punta Gorda, Florida, USA Surf Cup Sports Park in Del Mar, California, USA Teeth of the Dog at Casa de Campo in the Dominican Republic Texas Rangers Training Facility in the Dominican Republic Tony Butler Golf Course in Harlingen, Texas, USA TPC Danzante Bay Golf Resort in Loreto, Mexico The Village Course at Waikoloa in Waikoloa, Hawaii, USA Washington School District in St. George, Utah, USA Zapotal Beach Club in San Jose, Costa Rica

SOUTH PACIFIC

Exclusiv Golf Deva in New Caledonia

Establishment Guide

PURE DYNASTY

Seeded Paspalum from Pure Seed

PRIOR TO PLANTING

Soil and Water Test:

Soil testing is the best scientific method available to evaluate the nutritional status of the soil. Nutrient stresses and imbalances can reduce plant vigor, which increases the plant's susceptibility to damage from drought, disease, insects, and other conditions.

Water testing helps determine whether your water is safe to use by measuring the pH, various components, and the total salt content. Turf irrigation water testing services provide data and guidance to help you form an action plan to improve the condition of your turf.

It is recommended to have a complete knowledge of soil and water quality to ensure the initial success of Pure Dynasty Seeded Paspalum.

Irrigation Testing:

Prior to seeding, the irrigation system should be tested to ensure all components are in good operating condition. Assess the system for design flaws and outdated hardware that may reduce the efficiency of water delivery.

Seed Bed Preparation:

Whether establishing a new seedbed or renovating existing turf, it is important to begin with a firm and smooth soil surface, which is relatively free of debris. If renovating existing turf, apply non-selective herbicides (glyphosate + Fusilade combination), if available, to kill all existing turf. Allow a 30-day wait period before seeding when using Fusilade.

Fumigation is the most effective alternative to herbicide in removing undesirable grasses. Bermudagrass is best removed with fumigation, since non-selective herbicides may not completely kill all of the vegetative tissue in bermudagrass.

Seed Storage:

Prior to planting, the seed should be stored in a cool, dry area and be used within six months of purchase. If the seed is not stored properly, germination could decrease.

PLANTING

Good soil-to-seed contact is vital to successful establishment. Utilizing seeders that drop the seed on the top of the soil is recommended. The surface should be lightly raked and then gently rolled after seeding. Germination will be reduced if the seed is buried too deep. Hydroseeding is an option for areas prone to erosion or excessive soil movement.

A pre-plant fertilizer should be applied prior to seeding. The analysis of the fertilizer should be in line with the results of the initial soil test.

Seeding Rates:

Golf Course Fairways, Roughs, Tees, Sports Fields, Home Lawns

1.5 - 4.0 lbs./1,000ft² of coated* seed. (7.3 grams - 16 grams / square meter)

Golf Course Putting Greens

3.0 lbs./1,000ft² of coated* seed. (14.6 grams / square meter)

*Coating aids in moisture retention around the seed.

ESTABLISHMENT

Irrigation During Establishment:

Although seeded seashore paspalum is well known for its tolerance to salt, it is essential to establish the variety with clean, potable water. Water that is < 2,000 ppm total TDS is strongly recommended. Keep the seedbed continually moist with fresh water by frequently irrigating throughout the day during germination, which should occur in an average of 10 days or sooner with optimum soil temperatures of 80° to 95° F (27° - 35° C). It is critical to maintain constant surface moisture through light and frequent irrigations during the first 14 days after planting. This may include a range of six to seven 5-minute events per day in order to maintain proper soil-surface moisture, depending upon weather factors such as temperature, wind, and cloud cover. Do not saturate the soil surface to the point of runoff as seed movement can occur.

Mowing and Topdressing:

The first mowing will depend on whether it's for the establishment of a putting green, or for other higher mowed turf. For putting green establishment, the first mowing should be at 0.25 inches (6 mm), then bring the mowing height down slowly, while maintaining canopy and coverage. The first few mowings are critical since the plant reacts very aggressively to its first cut. The plant will grow laterally much more aggressively, and establishment is greatly enhanced by this activity.

For other turf areas like tees, fairways, roughs, sports fields, and other higher cut surfaces, the first mowing is recommended when it reaches approximately 1 inch (2.5 cm) in height. This will

reduce the incidence of scalping that could occur if allowed to grow more than 1 inch in height. Once again, regular mowing will strongly encourage lateral growth and better turf coverage. Efforts to prevent scalping are strongly encouraged since scalping can set back the grow-in by several weeks. Ensure mower blades/reels are sharp and use solid rollers. This results in limiting the removal of new seedlings.

For putting greens, light topdressing should take place with the same topdressing mix used for the greens mix. This should take place about 4-6 weeks after germination and should be done after that every 10-21 days. For surfaces other than putting greens, topdressing is recommended frequently to encourage growth and create a smooth playing surface.

Fertilization:

Seashore paspalum for the first three weeks or so is primarily forming a root system, and little if any nitrogen is needed during this phase of growth. Fertilization can begin after this three-week period and should be treated similar to a bermudagrass grow-in. Fertilizer brands and analysis should be used in conjunction with soil and water data.

Typically, fertilizer applications should emphasize potassium and phosphorus (though less on phosphorous as most soils are adequate in this element). Fertilization can start when plants are three weeks of age. Apply 0.5-1.0 lbs. of nitrogen per 1,000 sq ft (1.5-2.4 g/m²) in the nitrate (NO₃) form weekly until uniform turf coverage is achieved. This can be applied either in granular or liquid form or through the use of fertigation. Good sources of nitrogen for paspalum are calcium and potassium nitrate. Ammonium sulfate can also be applied as a nitrogen source though it will be somewhat slower to react.

Other components to be considered during the grow-in and maintenance are the addition of products containing humic/fulvic acids. Also important are seaweed extract products, especially ones that contain at least 35% active ingredient cytokinins. These enhance paspalum performance. For salt-compromised areas, consider including manganese and zinc to trigger the salt tolerance mechanism in paspalum.

Once established, fertilize annually at a rate of 2 to 3 lbs of nitrogen per 1,000 sq ft (9.8-14.7 g/ m^2) during early fall or spring. It is not necessary to exceed 4 lbs (1.8 g) per year. Recommended ratios are 1:2:3 or 1:3:4.



Pure Dynasty with $ACCe^{TM}$ is the market's first herbicideresistant seeded paspalum. Developed by Pure-Seed Testing using ACCe technology from the University of Georgia, Pure Dynasty with ACCe features all of the advanced characteristics of the original Pure Dynasty with the added benefit of improved tolerance to ACCe-inhibiting herbicides including sethoxydim, fenoxaprop, fluazifop-butyl, and pinoxaden. This allows for control of unwanted annual and perennial grasses such as bermudagrass, crabgrass, goosegrass, tropical signal grass, and more.

The herbicide resistance of Pure Dynasty with ACCe makes turf conversions easier than ever. Simply interseed Pure Dynasty with ACCe into the existing turf stand. Once the new paspalum is established, the old turf can be sprayed out with any of the approved herbicides. In most cases, the project can remain open for play throughout the transition.

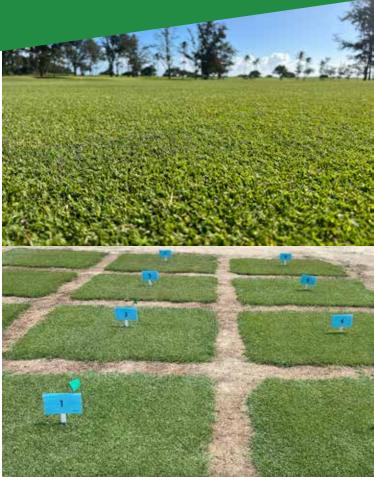
In addition to turf conversions, Pure Dynasty with ACCe is also the ideal choice for new projects where weeds and offtype grasses pose a challenge during grow-in, such as locations where fumigating before planting is restricted.

Pure Dynasty with ACCe is non-genetically modified, utilizing natural breeding practices.

Applications

Golf Course Roughs	Golf Course Greens
Golf Course Fairways	Sports Fields
Golf Course Tees	andscaping





Product Features

- Herbicide resistance
- Superior salt tolerance
- · Quick germination and faster establishment
- Tighter density
- Improved disease resistance
- Stronger overall performance
- · Reduced mowing heights for wall-to-wall applications

Characteristics	
Color	Dark Green
Fall Color Retention	Excellent
Spring Green-Up	Excellent
Establishment	Rapid
Wear Tolerance	Excellent
Injury Recovery	Very Good
Heat Tolerance	Very Good
Cold Tolerance	Good
Shade Tolerance	Very Good
Drought Tolerance	Very Good
Salt Tolerance	Excellent
Mowing Heights	0.08" – 3" (2.03 mm – 76.2 mm)

The recommended seeding rate for coated seed is 65-130 pounds per acre (73-146 kilograms per hectare).

Interseeding with PURE DYNASTY Geeded Paspalum from Pure Seed

Do your greens lack density and speed? Are your fairways filled with bare spots or patches of thin turfgrass? Is your turf contaminated with unwanted grasses?

Maybe your current turfgrass is no longer the right choice for your location, climate, irrigation source, or maintenance constraints. Or perhaps you've known that your turf needs to be replaced with a more advanced variety, but your budget won't allow for a traditional turfgrass conversion.

Turfgrass conversions just got a whole lot easier. Pure Dynasty[®] is the elite seeded paspalum developed by Pure-Seed Testing and marketed internationally by Atlas Turf International. Perfect for golf greens, tees, fairways, and roughs, as well as sports fields and landscaping, this improved seeded paspalum delivers tighter density, quicker germination and establishment, better disease resistance and spring green-up, and stronger overall performance.

Interseeding can be a much more cost-effective method for turfgrass conversion than sodding, sprigging, or traditional seeding. Time frames for grow-in and complete coverage vary depending on location and site conditions; however, interruption of play is minimal. Converting to Pure Dynasty through interseeding is a simple process causing little or no disruption to playing surfaces.



Pure Dynasty with ACCe[™] is the newest paspalum from Pure-Seed Testing featuring all of the advanced characteristics of Pure Dynasty with the added benefit of herbicide resistance. Quantities are limited.



Grow-in of Pure Dynasty interseeding at Golf Son Gual in Spain took approximately 8 weeks.

Saadiyat Beach Golf Club in Abu Dhabi interseeded with Pure Dynasty to replace less salt tolerant bermudagrass



Projects replacing older paspalum varieties will find Pure Dynasty turfgrass has:

- Improved disease resistance
- Finer leaf blade
- Tighter canopy
- Better density

Projects replacing bermudagrass varieties will find Pure Dynasty turfgrass has:

- Superior salt tolerance
- Improved shade and low light tolerance
- Better wear resistance

Select Pure Dynasty Seeded Paspalum interseeding projects include:

- Saadiyat Beach Golf Club in Abu Dhabi, UAE
- Golf Son Gual Mallorca in the Balearic Islands of Spain
- Sunshine Valley Golf Club in Taipei, Taiwan
- Nansha Golf Club in Guangzhou, China
- Hidden Lakes Golf Club in New Smyrna Beach, Florida, USA
- St. Andrews South Golf Club in Punta Gorda, Florida, USA

For more information on interseeding with Pure Dynasty Seeded Paspalum products, please contact info@atlasturf.com

STRONGER, HEALTHIER TURF THROUGH INTERSEEDING

Interseeding is not a new process, but with the introduction of advanced seeded turfgrasses, it is becoming more and more popular. The opportunity to improve turf conditions and address problem areas without significant investment or loss of playing time makes interseeding a great idea.



Applications for Interseeding

Gradual Turf Conversion

Upgrading to new and improved turfgrasses for golf greens, tees, fairways, or sports fields does not require the complete removal of the existing stand and resodding or replanting. Turf conversion through interseeding allows for a gradual transition at a fraction of the cost and with minimal disruption to play.

Adding Density and Repairing Thin or Worn Turf

A number of conditions can lead to thinned-out turf – wear, damage, shade, contamination, disease, etc. No matter what the cause, interseeding can provide a low-cost, low-effort solution. New seeded varieties offer improved disease resistance, salt tolerance, shade tolerance, wear tolerance, and more.



How and When to Interseed

The process of interseeding is simple: when verticutting and topdressing, the new variety of seed is broadcast on the playing surface. Interseeding can be done anytime turf surfaces are groomed throughout the growing season.



Benefits of Interseeding



Pure Dynasty[®] Seeded Paspalum offers:

- Unbeatable salt tolerance
- Improved disease resistance
- Improved shade and low light tolerance
- Better wear resistance
- Very good heat tolerance
- Finer leaf blade
- Tighter canopy
- Better density



Sun Queen[™], North Shore SLT[™], and PurePro[™] Seeded Bermudagrasses offer:

- Excellent wear tolerance
- Rapid recovery
- Salt tolerance superior to other bermudagrasses
- Very good drought tolerance
- Improved disease resistance
- More vibrant color
- Improved density

Need More Reasons?

Interseeding has successfully solved some of the most challenging turf and maintenance conditions including:

- Inconsistent quality of playing conditions from season to season
- Turf loss due to summer stress and disease
- Excessive thatch or unwanted species creeping in
- Turf damage due to weather extremes (too hot, too dry, too wet)
- Negative effects of poor water quality or sodic soil

Interseeding with advanced varieties can also lead to:

- Reduced fertilizer usage
- Reduced watering rates
- Ability to mow at lower heights without scalping

WARM SEASON TURFGRASS PRODUCTS

Atlas Turf Bermudagrasses





North Shore SLT[™] Seeded Bermudagrass, developed by Pure-Seed Testing, outperforms other bermudas in salt tolerance and is an excellent turf choice for projects with water issues or restrictions. Density and outstanding wear tolerance deliver turf quality that stands up to the most demanding conditions.

Applications



Product Features

- Excellent salt tolerance
- Medium fine leaf texture
- Excellent wear tolerance
- Improved drought and heat tolerance
- Adapted to the transition zone as well as subtropical and tropical climates
- Quick germination

Characteristics

Color	Dark Green
Fall Color Retention	Good
Spring Green-Up	Good
Establishment	Moderate
Wear Tolerance	Excellent
Injury Recovery	Good
Heat Tolerance	Good
Cold Tolerance	Good
Shade Tolerance	Fair
Drought Tolerance	Very Good
Salt Tolerance	Excellent
Mowing Heights	0.5" – 3" (12.7 mm – 76.2 mm)

The recommended seeding rate for coated seed is 65-130 pounds per acre (73-146 kilograms per hectare).







Sun Queen, from the breeding program at Pure-Seed Testing, Inc., begins its reign as the newest elite seeded bermudagrass. Delivering the growth qualities most sought in turfgrass, Sun Queen ranks #1 in establishment (NTEP 2020), stands up to heavy use, and rebounds aggressively from injury. With refined improvements in leaf texture and exceptional density, Sun Queen delivers an advanced surface for living and playing all while keeping a beautiful dark green color.

In addition to performance and appearance, Sun Queen rules in endurance, offering extreme protection against heat, drought, and disease. Salt tolerance and lower fertilizer requirements add to its sustainability features.

Characteristics	
Color	Dark Green
Fall Color Retention	Good
Spring Green-Up	Very Good
Establishment	Excellent
Wear Tolerance	Excellent
Injury Recovery	Excellent
Heat Tolerance	Excellent
Cold Tolerance	Good
Shade Tolerance	Fair
Drought Tolerance	Very Good
Salt Tolerance	Good

The recommended seeding rate is 1.5-3 pounds per 1000 ft² (732-1465 grams per 100 square meters).





Product Features

Reliable growth

- Top-ranking establishment
- Extreme wear tolerance
- Rapid recovery

Maximum protection

- Heat tolerance
- Drought tolerance
- Disease tolerance

Advanced playability & enhanced appearance

- Greater density
- Finer leaf texture
- Dark green color



As a blend of the market's best seeded bermuda varieties, PureProTM features improved attributes including strength, drought tolerance, salt tolerance, and disease resistance. Exceptional durability and wear tolerance provide a highperforming turf surface for the most challenging applications.

Applications



Product Features

- Excellent salt tolerance
- Medium fine leaf texture
- Excellent wear tolerance
- Improved drought and heat tolerance and disease resistance
- Perfect for interseeding
- Quick germination

Characteristics

Color	Dark Green
Fall Color Retention	Good
Spring Green-Up	Good
Establishment	Moderate
Wear Tolerance	Excellent
Injury Recovery	Good
Heat Tolerance	Good
Cold Tolerance	Good
Shade Tolerance	Fair
Drought Tolerance	Very Good
Salt Tolerance	Excellent
Mowing Heights	0.5" – 3" (12.7 mm – 76.2 mm)

The recommended seeding rate for coated seed is 65-130 pounds per acre (73-146 kilograms per hectare).











Establishment Guide

PRIOR TO PLANTING

Soil and Water Test:

Soil testing is the best scientific method available to evaluate the nutritional status of the soil. Nutrient stresses and imbalances can reduce plant vigor, which increases the plant's susceptibility to damage from drought, disease, insects, and other conditions.

Water testing helps determine whether your water is safe to use by measuring the pH, various components, and the total salt content. Irrigation testing services provide data and guidance to help you form an action plan to improve turf conditions.

It is recommended to have complete knowledge of soil and water quality to ensure germination and to develop a comprehensive management plan for long-term success.

Irrigation Testing:

Prior to seeding, test the irrigation system to ensure all components are in good operating condition. The system should also be assessed for design flaws and outdated hardware that may reduce water delivery efficiency.

Seed Bed Preparation:

Whether establishing a new seedbed or renovating existing turf, it is important to begin with a firm and smooth soil surface, relatively free of debris. Areas to be planted should be rolled with a cultipacker, turf roller, or similar device to firm the seedbed. This process helps to achieve the desired firmness and will shatter soil clods. Soil should be firmed to 85% of compaction or until walking across the seedbed leaves a footprint of ¹/₄ inch (6 mm) or less. If soil clods still exist after rolling, additional tillage may be necessary. The tillage procedure can be advantageous if large amounts of organic debris are present on the installation areas.

Before planting, remove all weeds and unwanted plants, and spray a non-selective herbicide (glyphosate). Spraying should be performed at least four weeks prior to planting and again 14 days after the initial tillage if performed. If undesirable bermudagrass is present, spray a minimum of two applications of glyphosate and Fusilade at the recommended rate allowing 14 days between applications. Sow seed 30 days after the last Fusilade application. Fumigation is the most effective alternative to herbicide in removing undesirable grasses. Unwanted bermudagrass is best removed with fumigation since non-selective herbicides may not completely kill all of the vegetative tissue in bermudagrass.

Pre-plant fertilizer and amendments:

A pre-plant fertilizer should be applied before seeding. Apply a balanced 1-1-1 fertilizer such as a 15-15-15 or similar at a rate of 250 lbs/ acre (280 kg/hectare). Fertilizer brands and analysis should be used in conjunction with soil and water data. Apply soil amendments such as lime or gypsum to adjust the pH. Application rates should be based on soil test results.

Seed Storage:

Prior to planting, store the seed in a cool, dry area, and use within six months of purchase. If the seed is not stored properly, germination could decrease.

PLANTING

Good soil-to-seed contact is vital to successful establishment. Utilizing seeders that drop the seed on the top of the soil is recommended as the seed does not need to be sown any deeper than 1/16 inch (1.5 mm). Seed may need to be applied at a half rate in alternating directions to ensure even coverage. The surface should be lightly raked and then gently rolled after seeding. Germination will be reduced if the seed is buried too deep. Hydroseeding is a planting alternative for areas prone to erosion or excessive soil movement.

Seeding Rates:

Golf Course Fairways, Roughs, Tees, Sports Fields, Home Lawns 1.0 – 3.0 lbs/1,000 ft² of coated* seed (450 – 1300 g/100 m²)

*Coating aids in moisture retention around the seed.

ESTABLISHMENT

Irrigation During Establishment:

Keep the seedbed continually moist with fresh water by frequently irrigating throughout the day during germination, which should occur in an average of 10 days or sooner with optimum soil temperatures of 80° to 95°F (27°- 35°C). It is critical to maintain constant surface moisture through light and frequent irrigations during the first 14 days after planting. This may include a range of six to seven five-minute events per day to maintain proper soil-surface moisture, depending upon weather factors such as temperature, wind, and cloud cover. Do not saturate the soil surface to the point of runoff as seed movement can occur.

Mowing and Topdressing:

For areas such as tees, fairways, roughs, sports fields, and other higher cut surfaces, the first mowing is recommended when the new turf reaches approximately one inch (2.5 cm) in height. Allowing the new turf to grow higher than one inch before the first mowing increases the chances of scalping. Regular mowing will strongly encourage lateral growth and better turf coverage. Efforts to prevent scalping are strongly encouraged since scalping can delay the grow-in by several weeks. Ensure mower blades/reels are sharp and use solid rollers to limit the removal of new seedlings.

Topdressing is recommended for highly manicured areas four to six weeks after germination to encourage lateral growth and create a smooth playing surface. Subsequent topdressing can be applied as needed until fully grown in.

Fertilization:

Pre-plant application: see above.

Apply 0.5 - 1.0 lbs. of nitrogen per 1,000 square feet (225 - 450 grams per 100 square meters) weekly until uniform turf coverage is achieved. This can be applied either in granular or liquid form or through the use of fertigation. Common sources of nitrogen include, but are not limited to, calcium nitrate and potassium nitrate or ammonium sulfate.

Other components to be considered during the grow-in and maintenance are the addition of fully decomposed organics and products containing humic/fulvic acids.

Once established and depending on environmental conditions, annual fertilization requirements should be between 5.0 - 7.0pounds of nitrogen per 1,000 square feet (2.26 to 3.17 kilograms per 100 square meters).



NorthBridge[®], from the breeding program of Oklahoma State University, outperforms other bermudagrasses in shear strength and traffic recovery. With tremendous cold tolerance and early spring green-up, NorthBridge thrives in the transition zone and beyond.

Applications



Product Features

- Bright green color
- Excellent cold and heat tolerance
- Exceptionally strong
- High traffic tolerance and rapid recovery
- Resistant to spring dead spot
- Quicker to establish than Latitude 36

Characteristics

Color	Bright Green
Fall Color Retention	Very Good
Spring Green-Up	Excellent
Establishment	Moderate
Wear Tolerance	Excellent
Injury Recovery	Very Good
Heat Tolerance	Excellent
Cold Tolerance	Excellent
Shade Tolerance	Good
Drought Tolerance	Very Good
Salt Tolerance	Good
Mowing Heights	0.5" – 3" (12.7 mm – 76.2 mm)







Latitude 36[®], developed by Oklahoma State University, is the bermudagrass solution for the transition zone and beyond with winter hardiness and early spring green-up. This extremely cold tolerant turfgrass consistently rates among the top-performing bermudagrasses in the National Turfgrass Evaluation Program (NTEP).

Applications



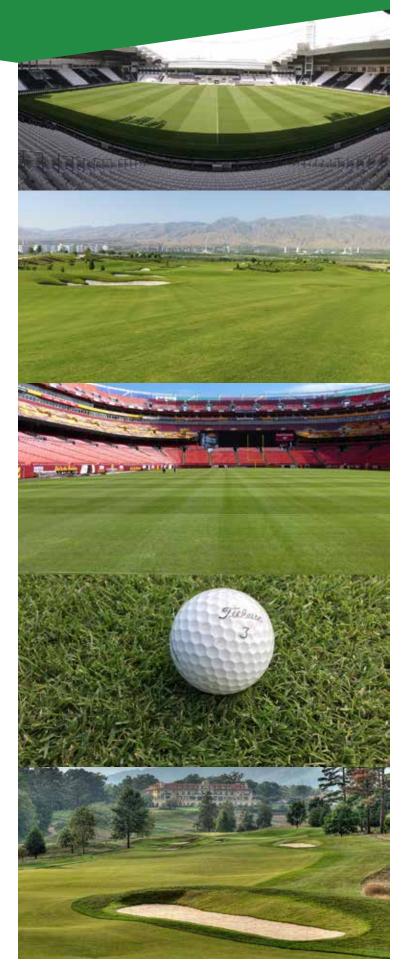
Product Features

- Dark green color
- Outstanding cold tolerance
- Top-rated wear tolerance and injury recovery
- Resistant to spring dead spot
- Excellent heat tolerance
- Soft texture, finer than NorthBridge

Characteristics

Color	Dark Green
Fall Color Retention	Very Good
Spring Green-Up	Very Good
Establishment	Moderate
Wear Tolerance	Excellent
Injury Recovery	Very Good
Heat Tolerance	Excellent
Cold Tolerance	Excellent
Shade Tolerance	Good
Drought Tolerance	Very Good
Salt Tolerance	Good
Mowing Heights	0.5" – 3" (12.7 mm – 76.2 mm)





LATITUDE 36[®] BERMUDAGRASS PROJECTS WORLDWIDE

ASIA

Al Sadd Club Jassim Bin Hamad Stadium in Doha, Qatar (Sports) Ashgabat Golf Club in Ashgabat, Turkmenistan (Golf) Erbil Hills Golf Club in Erbil, Iraq (Golf)

NORTH AMERICA (select projects)

Aronimink Golf Club in Newton Square, PA (Golf) Arthur W. Perdue Stadium - Delmas Shorebirds in Salisbury, MD (Sports) Banyan Cay Resort & Golf in West Palm Beach, FL (Golf) Baylor University Getterman Stadium infield in Waco, TX (Sports) Belfair in Bluffton, SC (Golf) Belmont Country Club in Ashburn, VA (Golf) Boca Rio Golf Club in Boca Raton, FL (Golf) Broken Sound Club in Boca Raton, FL (Golf) Calfee Park - Pulaski Yankees in Pulaski, VA (Sports) Calvin Falwell Field - Lynchburg Hillcats in Lynchburg, VA (Sports) Cattail Country Club in Glenwood, MD (Golf) Cattails at Meadow View Golf Course in Kingsport, TN (Golf) Chartwell Golf & Country Club in Severna Park, MD (Golf) Chickasaw Country Club in Memphis, TN (Golf) College of William & Mary Plumeri Park in Williamsburg, VA (Sports) Country Club of Virginia in Richmond, VA (Golf) Daniel Island Club in Charleston, SC (Golf)

Duke University Wallace Wade Stadium and Brooks Practice Field in Durham, NC (Sports) Durham Bulls in Durham, NC (Sports) ESPN Wide World of Sports in Orlando, FL (Sports) Etowah Valley Golf Club in Hendersonville, NC (Golf) Farmington Country Club in Charlottesville, VA (Golf) FC Dallas Toyota Stadium in Frisco, TX (Sports) Florida Atlantic University softball field in Boca Raton, FL (Sports) Georgetown University practice fields in Washington, DC (Sports) Hampshire Greens Golf Course in Silver Spring, MD (Golf) Hidden Cove Golf Club at Greyson Lake State Park in Olive Hill, KY (Golf) Inter Miami CF MLS Miami Freedom Park Stadium in Miami, FL (Sports) Keswick Golf Club in Keswick, VA (Golf) Klyde Warren Park in Dallas, TX (Sports) LAFC Banc of California Stadium in Los Angeles, CA (Sports) Liberty University soccer in Lynchburg, VA (Sports) Little Bennett Golf Course in Clarksburg, MD (Golf) Loxahatchee Club in Jupiter, FL (Golf) Oklahoma City Golf & Country Club in Oklahoma City, OK (Golf) Old Marsh Golf Course in Palm Beach Gardens, FL (Golf) Olmos Basin Course in San Antonio, TX (Golf) Palm City Polo in Boynton Beach, FL (Sports) **Richmond Flying Squirrels The Diamond** in Richmond, VA (Sports)

Shangri-La Resort in Grand Lake, OK (Golf) Springfield Golf Club in Springfield, PA (Golf) Tennessee Smokies Stadium in Kodak, TN (Sports) Texas A&M University Kyle Field, Olsen Field, Ellis Field in College Station, TX (Sports) TPC at Piper Glen in Charlotte, NC (Golf) Tulsa Country Club in Tulsa, OK (Golf) Tulsa Drillers ONEOK Field in Tulsa, OK (Sports) University of Arkansas Baseball Baum Stadium in Fayetteville, AR (Sports) University of Kentucky - football practice fields in Lexington, KY (Sports) University of Missouri Taylor Stadium and football practice in Columbia, MO (Sports) University of North Carolina Ashville in Ashville, NC (Sports) University of Oklahoma Memorial Stadium - football practice, softball, and soccer in Norman, OK (Sports) University of Tennessee Neyland Stadium and football practice fields in Knoxville, TN (Sports) University of Texas McCombs Field in Austin, TX (Sports) University of Virginia Scott Stadium, track, softball, baseball infield, and football practice in Charlottesville, VA (Sports) Vanderbilt University football practice in Nashville, TN (Sports) Virginia Tech Lane Stadium, football practice, Thompson Field in Blacksburg, VA (Sports) Vistas del Pedregal Golf & Country Club in Dominican Republic (Golf)

NORTHBRIDGE® BERMUDAGRASS PROJECTS WORLDWIDE

ASIA

Sindalah Golf Club in NEOM, Saudi Arabia (Golf)

NORTH AMERICA

Arkansas Travelers in North Little Rock, AR (Sports) Arrowhead Stadium in Kansas City, MO (Sports) Atlanta Athletic Club in John's Creek, GA (Golf) Audi Field in Washington, D.C. (Sports) BraeBurn Country Club in Houston, TX (Golf) Bryant-Denny Stadium in Tuscaloosa, AL (Sports) Centene Stadium - St. Louis City SC in St. Louis, MO (Sports) Children's Mercy Park in Kansas City, KS (Sports) Christian Brothers University in Memphis, TN (Sports) City of Rogers Soccer Stadium in Rogers, AR (Sports) Country Club of Virginia in Richmond, VA (Golf) Davis Wade Stadium in Starkville, MS (Sports) Etowah Valley Golf Club in Etowah, NC (Golf) Exploria Stadium in Orlando, FL (Sports) Fayetteville Country Club in Fayetteville, AR (Golf) FedEx Field in Landover, MD (Sports) Folk Field in West Lafayette, IN (Sports) Forsyth Country Club in Winston Salem, NC (Golf) Fresno City Community College in Fresno, CA (Sports) Georgia Southern Baseball/Softball fields in Statesboro, GA (Sports) Georgetown Prep Baseball Infield in Bethesda, MD (Sports) Golden Horseshoe Golf Club in Williamsburg, VA (Golf) Hopkinsville Golf & Country Club in Hopkinsville, KY (Golf) Jordan-Hare Stadium in Auburn, AL (Sports) Kansas City Current in Kansas City, MO (Sports) Kansas State - softball and football practice fields in Manhattan, KS (Sports) Louisville Slugger Field in Louisville, KY (Sports)

Maridoe Golf Club in Carrollton, TX (Golf) Maryland SoccerPlex in Boyds, MD (Sports) McCormick Field in Asheville, NC (Sports) McKenzie High School Athletic Fields in McKenzie, TN (Sports) Memphis Redbirds Stadium in Memphis, TN (Sports) Middlesex H.S. Sports Fields in Saluda, VA (Sports) Northwood Club in Dallas, TX (Golf) Old Dominion Soccer Stadium in Norfolk, VA (Sports) Palmetto Bluff Club in Bluffton, SC (Golf) PGA Headquarters Courses in Frisco, TX (Golf) Redskins Park in Prince George County, MD (Sports) Sewell-Thomas Stadium in Orlando, FL (Sports) Southern Hills Country Club in Tulsa, OK (Golf) University of Missouri practice fields in Columbia, MO (Sports) Williams-Brice Stadium in Columbia, SC (Sports)



Celebration® Bermudagrass, the turf of choice at world-class sporting events including the 2016 Summer Olympics and the 2014 World Cup, offers extreme durability and exceptional performance. Celebration scores high in heat and drought tolerance and is rated as the most shade tolerant bermudagrass.

Applications

Golf Course Roughs (A) Sports Fields Golf Course Fairways

Sandscaping

Golf Course Tees

Product Features

- Dark blue-green color with excellent color retention in cooler seasons
- Tough runners, rhizomes, and deep roots for exceptional sod strength
- Excellent wear tolerance and injury recovery
- Improved drought tolerance
- Excellent shade tolerance

Characteristics

Color	Dark Blue-green
Fall Color Retention	Very Good
Spring Green-Up	Very Good
Establishment	Rapid
Wear Tolerance	Excellent
Injury Recovery	Excellent
Heat Tolerance	Excellent
Cold Tolerance	Good
Shade Tolerance	Excellent
Drought Tolerance	Excellent
Salt Tolerance	Good
Mowing Heights	0.5" – 3" (12.7 mm – 76.2 mm)



Turf on a Global Scale[™] AtlasTurf.com



CELEBRATION® BERMUDAGRASS PROJECTS WORLDWIDE

ASIA

Ba Na Hills Golf Club in Danang, Vietnam (Golf) DLF Golf & Country Club in Gurgaon, India (Golf) Harbour Plaza in Shenzhen, China (Golf) Harmonie Golf Park in Binh Duong, Vietnam (Golf) Hoan Cau Long An Golf Course in Long An, Vietnam (Golf) Kuala Lumpur Golf & Country Club in Kuala Lumpur, Malaysia (Golf) Sacom Tuyen Lam Golf Club in Dalat, Vietnam (Golf) Shizuoka Country Club Hamaoka Course in Shizuoka, Japan (Golf) Stone Valley Golf Resort in Ha Nam, Vietnam (Golf)

EUROPE

Arena Garibaldi Stadio Romeo Anconetani in Pisa, Italy (Sports) Real Madrid Ciudad Deportiva in Madrid, Spain (Sports)

NORTH AMERICA (select projects)

Atlantic Beach Country Club in Atlantic Beach, FL (Golf) Atlantic National Golf Club in Lake Worth, FL (Golf) Audubon Country Club in Naples, FL (Golf) Augusta National Golf Club in Augusta, GA (Golf) Azevedo Park Soccer Complex in Rocklin, CA (Sports) Bay Hill Club & Lodge in Orlando, FL (Golf) The Bear's Club in Jupiter, FL (Golf) Belfair Plantation in Bluffton, SC (Golf) Boca Grove Golf Course in Boca Raton, FL (Golf) Broken Sound Club in Boca Raton, FL (Golf) Callawassie Island Club in Okatie, SC (Golf) The Club at Admirals Cove in Jupiter, FL (Golf) The Club at Boca Pointe in Boca Raton, FL (Golf) Colleton River Plantation in Bluffton, SC (Golf) Copperhead Course at Innisbrook in Palm Harbor, FL (Golf) The Country Club of Florida in Village of Golf, FL (Golf) The Country Club of Mobile in Mobile, AL (Golf) The Course at Eagle Mountain in Batesville, AZ (Golf) De Bordieu Colony Country Club in Georgetown, SC (Golf) Double H Farms in Wellington, FL (Equestrian) The Dye Preserve in Jupiter, FL (Golf) Florida Atlantic University (FAU) in Boca Raton, FL (Sports) The Florida Club in Stuart, FL (Golf) Florida State University in Tallahassee, FL (Sports) Ford Plantation in Richmond Hill, GA (Golf) Frenchman's Reserve in Palm Beach Gardens, FL (Golf) Georgia Southern University in Statesboro, GA (Sports) The Golf Club at Texas A&M University in College Station, TX Grey Oaks Country Club in Naples, FL (Golf)

Harbour Ridge Yacht and Country Club in Palm City, FL (Golf) Harbour Town Golf Links in Hilton Head Island, SC (Golf) Heron Point by Pete Dye in Hilton Head Island, SC (Golf) Hideaway Beach in Marco Island, FL (Golf) Ibis Golf & Country Club in West Palm Beach, FL (Golf) Indian Creek Country Club in Miami, FL (Golf) Jan Pamela Farms LLX in Wellington, FL (Polo) Jonathan's Landing Golf Club in Jupiter, FL (Golf) Jupiter Hills in Jupiter, FL (Golf) Jupiter Island Club in Hobe Sound, FL (Golf) Kiawah Island - Various Courses in Kiawah Island, SC (Golf) Lakewood National Golf Club in Lakewood Ranch, FL (Golf) Lakewood Ranch Golf & Country Club in Bradenton, FL (Golf) The Landings Club - Deer Creek Course in Savannah, GA (Golf) Long Cove Club in Hilton Head Island, SC (Golf) Louisiana State University (LSU) Stadium and all athletic fields in Baton Rouge, LA (Sports) Memo Gracida in Okeechobee, FL (Polo) Mizner Country Club in Delray Beach, FL (Golf) Moss Creek Golf Club in Hilton Head Island, SC (Golf) Naples National Golf Club in Naples, FL (Golf) Niall Brennan Stables in Ocala, FL (Equestrian) North Ridge Country Club in Fair Oaks, CA (Golf) Ocean Reef Club in Key Largo, FL (Golf) Old Corkscrew Golf Course in Estero, FL (Golf) Olde Florida Golf Club in Naples, FL (Golf) Orthwein Port Mayaca LLC in Stuart, FL (Polo) Palm Beach Country Club in Palm Beach, FL (Golf) Palm Beach Gardens Golf Course in Palm Beach Gardens, FL (Golf) Palmetto Dunes Golf in Hilton Head Island, SC (Golf) Pelican Bay Country Club in Naples, FL (Golf) PGA Golf Club at PGA Village in Port St Lucie, FL (Golf) PGA National in Palm Beach Gardens, FL (Golf) Pine Tree Golf Club in Boynton Beach, FL (Golf) Placid Lakes Country Club in Lake Placid, FL (Golf) Presidential Country Club in North Miami Beach, FL (Golf) Quail Creek Country Club in Naples, FL (Golf) Roger Dean Stadium in Jupiter, FL (Sports) Royal Poinciana Golf Club in Naples, FL (Golf) Sarasota Cricket Club in Sarasota, FL (Sports) Sarasota Polo Club in Lakewood Ranch, FL (Sports) Sea Pines in Hilton Head Island, SC (Golf) South Carolina United FC in Columbia, SC (Sports) Stonebridge Country Club in Naples, FL (Golf) Tall Pines Golf Course in The Villages, FL (Golf)

Texas A&M University – The Campus Course in College Station, TX (Sports) Timuquana Country Club in Jacksonville, FL (Golf) TPC Sawgrass - The Players Stadium in Ponte Vedra, FL (Golf) Travis Park in San Antonio, TX (Polo) Trump National Doral Blue Monster Golf Course in Miami, FL (Golf) Trump National Golf Club Jupiter in Jupiter, FL (Golf) TwinEagles in Naples, FL (Golf) University of South Florida in Tampa, FL (Sports) Wexford Plantation in Hilton Head Island, SC (Golf) Yeamans Hall Club in Charleston, SC (Golf)

SOUTH AMERICA

Arena Fonte Nova Brazil 2014 World Cup Stadium in Salvador, Bahia, Brazil (Sports) Arena Mané Garrincha Brazil 2014 World Cup Stadium in Brasilia, Distrito Federal, Brazil (Sports) Castelão Brazil 2014 World Cup Stadium in Fortaleza, Ceará, Brazil (Sports) Clube Curitibano Golf in Curitiba, Paraná, Brazil (Golf) Clube de Campo de São Paulo in São Paulo, Brazil (Golf) Costão Golf Course in Florianópolis, Santa Catarina, Brazil (Golf) Engenhão in Rio de Janeiro, Brazil (Sports) Gávea Golf & Country Club in Rio de Janeiro, Brazil (Golf) Germany Centro de Treinamento in NE Brazil (Sports) Graciosa Country Club in Curitiba, Paraná, Brazil (Golf) Independência in Belo Horizonte, Minas Gerais, Brazil (Sports) Itanhangá Golf Club in Rio de Janeiro, Brazil (Golf) João Havelange/Engenhão Stadium in Rio de Janeiro, Brazil (Sports) Las Palmas Golf & Country Club in Paraná, Brazil (Golf) Maracanã Brazil 2014 World Cup Stadium in Rio de Janeiro, Brazil (Sports) Maracanã Stadium 2016 Summer Olympic Games in Rio de Janeiro, Brazil (Sports) Mineirão Brazil 2014 World Cup Stadium in Belo Horizonte, Minas Gerais, Brazil (Sports) Ponta Grossa Country Club in Paraná, Brazil (Golf) São Fernando Golf Club in São Paulo, Brazil (Golf) São Paula Golf Club in São Paulo, Brazil (Golf) Serra in Dourada, Goiás, Brazil (Sports) Terras de São José Golf Club in São Paulo, Brazil (Golf) Vila Belmiro in Santos, São Paulo, Brazil (Sports) Volta in Redonda, Rio De Janeiro, Brazil (Sports)



For decades, golf courses worldwide have chosen Tifway 419 Bermudagrass. Developed by the turfgrass pioneers of Tifton, Georgia, Tifway 419 offers strength and durability for heavy use applications. Its dense, rapidly spreading growth habit means quick recovery from injury. Tifway 419 tolerates close mowing and is disease resistant.

Applications



Product Features

- Dark green color with fine-textured leaves
- Excellent wear tolerance for high traffic areas
- Heat and drought tolerant
- Low growing
- Vigorous growth habit for injury recovery

Characteristics

Color	Dark Green
Fall Color Retention	Good
Spring Green-Up	Good
Establishment	Moderate
Wear Tolerance	Excellent
Injury Recovery	Good
Heat Tolerance	Very Good
Cold Tolerance	Fair
Shade Tolerance	Poor
Drought Tolerance	Good
Salt Tolerance	Poor
Mowing Heights	0.5" – 3" (12.7 mm – 76.2 mm)





WARM SEASON TURFGRASS PRODUCTS

Atlas Turf Bermudagrasses for Putting Greens





This grass is fast! Mach 1[®] Ultradwarf Bermudagrass delivers unmatched speed and performance with a fine velvety texture, higher shoot density, dwarf growth habit, and no swirling grain for overall smoothness. New to the market but grown and tested for more than twenty years, Mach 1 offers genetic stability and is known to be one of the cleanest and purest turfgrasses.

Applications

Golf Course Tees

Golf Course Greens

Product Features

- Premium putting surface
- Finest texture among ultradwarfs
- Upright dwarf growth habit
- Genetically stable
- Good wear tolerance
- Good heat and drought tolerance
- Faster grow-in
- Lower inputs

Characteristics

Color	Medium Green
Fall Color Retention	Good
Spring Green-Up	Very Good
Establishment	Moderate
Wear Tolerance	Good
Injury Recovery	Good
Heat Tolerance	Good
Cold Tolerance	Good
Shade Tolerance	Good
Drought Tolerance	Good
Salt Tolerance	Good
Mowing Heights	0.08"-0.25"(2.03 mm-6.35 mm)





MACH I[®] ULTRADWARF BERMUDAGRASS PROJECTS

Atlantic Fields Club Championship Course in Hobe Sound, FL Catawba Country Club in Newton, NC The Chalk Mine - 9-Hole Short Course in Aiken, SC English Turn Golf & Country Club in New Orleans, LA Lake Charles Country Club in Lake Charles, LA Old Chatham Golf Club in Durham, NC Pilot Knob Park Country Club in Pilot Mountain, NC The Revival Golf Course at the Crescent in Salisbury, NC River Oaks Golf Club in Statesville, NC Southern Trace Country Club in Shreveport, LA Streamsong Golf Resort - Red & Blue Courses in Bowling Green, FL Trump National Golf Club Charlotte - Fazio Five in Mooresville, NC



Championship courses around the world choose MiniVerde[®] Ultradwarf Bermudagrass for its smooth and fast putting surface. Ideal for putting greens, tees, and surrounds, MiniVerde's dense canopy creates a smooth, high-quality surface for excellent ball roll. MiniVerde's dark green color is rated best among ultradwarfs.

Applications

Golf Course Tees

Golf Course Greens

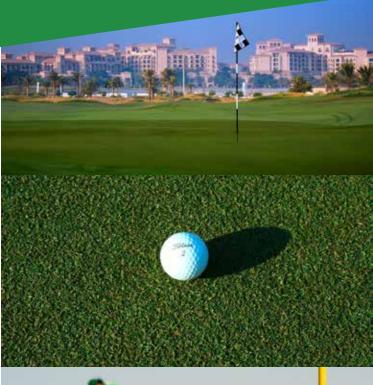
Product Features

- Dark green
- Fine texture
- Deep rooting
- · Good recovery from ball marks and spikes
- Good disease resistance

Characteristics

Color	Dark Green
Fall Color Retention	Good
Spring Green-Up	Good
Establishment	Moderate
Wear Tolerance	Good
Injury Recovery	Good
Heat Tolerance	Good
Cold Tolerance	Good
Shade Tolerance	Fair
Drought Tolerance	Good
Salt Tolerance	Good
Mowing Heights	0.08"-0.25"(2.03 mm-6.35 mm)







MINIVERDE® ULTRADWARF BERMUDAGRASS PROJECTS WORLDWIDE

ASIA

Anvaya Cove Golf and Sports Club in Manila, Philippines Ba Na Hills Golf Club in Danang, Vietnam

Bumi Serpong Damai Golf Club in Jakarta, Indonesia

> Delhi Golf Club in Delhi, India

DLF Golf and Country Club in Gurgaon, India

> Dwarka Golf Course in Delhi, India

Glenmarie Golf and Country Club in Kuala Lumpur, Malaysia

Grand Phnom Penh Golf Club in Phnom Penh, Cambodia

Guangzhou Maofengshan Golf Club in Guangzhou, China

> Hatoyama Country Club in Saitama, Japan

Hunan YunFeng Lake International Golf Club in Hunan, China

> Kalhaar Blues and Greens in Ahmedabad, India

Koga Golf Club in Koga City, Fukuoka, Japan

> Kumagaya Golf Club in Saitama, Japan

Lam Luk Ka Country Club in Bangkok, Thailand

Reihou Golf Club in Suzuka-shi, Mie, Japan

Riverdale Golf Club in Bangkok, Thailand

Riverside Enakyo Country Club in Gifu, Japan

Saadiyat Beach Golf Club in Abu Dhabi, United Arab Emirates

> Sanage Country Club in Toyota City, Aichi, Japan

Satsuki Golf Club Tenpai Course in Chikushino City, Fukuoka, Japan

Saujana Golf and Country Club in Kuala Lumpur, Malaysia

Shimonoseki Golf Club in Shimonoseki City, Yamaguchi, Japan

> Sky Hill Country Club in Kochi, Japan

Suwan Golf and Country Club in Bangkok, Thailand

> Usuki Country Club in Usuki City, Oita, Japan

AFRICA

Castle Rock Golf Club in Lagos, Nigeria

Durban Country Club in Durban, South Africa

Sea Cliff Golf Resort in Zanzibar, Tanzania

NORTH AMERICA (select projects)

Altozano Golf Club in Colima, Mexico

Barton Creek Country Club in Austin, Texas, USA

> The Bear's Club in Jupiter, Florida, USA

BlueBay Coronado Golf and Beach Resort in Playa Coronado, Panama

Chattanooga Golf and Country Club in Chattanooga, Tennessee, USA

> Dove Valley Ranch in Cave Creek, Arizona, USA

East Lake Golf Club in Atlanta, Georgia, USA

Half Moon Golf Course in Montego Bay, Jamaica

Medalist Golf Club in Hobe Sound, Florida, USA

Palmilla Golf Club in San Jose del Cabo, Mexico

Pinehurst No. I in Pinehurst, North Carolina, USA

Pine Needles Lodge and Golf Club in Southern Pines, North Carolina, USA

> River Oaks Country Club in Houston, Texas, USA

Royal Isabela in San Juan, Puerto Rico

Streamsong Resort in Fort Mead, Florida, USA

Summit Golf Club in Panama City, Panama

Sweetens Cove Golf Club in South Pittsburg, Tennessee, USA

The Woodlands Country Club in Houston, Texas, USA

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Sunday[™] Ultra-Dwarf Bermudagrass offers the best features of ultradwarfs but with less maintenance required and very good disease resistance. Sunday's massive root system, good wear tolerance, and minimal grain produce a strong and exceptionally smooth putting surface.

Applications

Golf Course Tees

Golf Course Greens

Product Features

- Genetically stable for over 25 years
- Massive root system
- Better disease resistance
- Best cold tolerance among ultradwarfs
- · Early spring green-up and very good fall color retention
- Very good wear tolerance

Characteristics

Churacteristics	
Color	Dark Green
Fall Color Retention	Very Good
Spring Green-Up	Very Good
Establishment	Moderate
Wear Tolerance	Very Good
Injury Recovery	Good
Heat Tolerance	Good
Cold Tolerance	Very Good
Shade Tolerance	Fair
Drought Tolerance	Good
Salt Tolerance	Good
Mowing Heights	0.08"-0.25"(2.03 mm-6.35 mm)







SUNDAY[™] ULTRA-DWARF BERMUDAGRASS PROJECTS WORLDWIDE

ASIA

Hilltop Valley Golf Club in Hanoi, Vietnam Mount Malarayat Golf & Country Club in Batangas, Philippines Sand River Golf Club in Shenzhen, China

NORTH AMERICA (select projects) The Aero Club in Myrtle Beach, North Carolina Arcadia Municipal Golf Course in Arcadia, Florida Arcadian Shores in Myrtle Beach, South Carolina Beacon Ridge Golf Club in West End, North Carolina Belle Terre Country Club in LaPlace, Louisiana Bethune Country Club in Bethune, South Carolina Beverly Park Par Three Golf Course in Knoxville, Tennessee Brick Landing Plantation Golf Club in Ocean Isle Beach, North Carolina Broken Sound Club in Boca Raton, Florida Cape Fear National in Leland, North Carolina Carolina Lakes Golf Club in Sanford, North Carolina Centerville Municipal Golf Course in Centerville, Tennessee Champions Run Golf Course in Mt. Pleasant, Tennessee Charlotte National Golf Club in Indian Trail, North Carolina Chickasaw State Park in Memphis, Tennessee Chockoyotte Country Club in Weldon, North Carolina Copperhead Golf Club in Lehigh Acres, Florida Cotton Fields Golf Club in McDonough, Georgia Country Club of Crystal Coast in Pine Knoll Shores, North Carolina Country Club of Naples in Naples, Florida Craft Farm's Cotton Creek Country Course in Gulf Shores, Alabama Cross Creek Country Club in Ft. Myers, Florida Crowfield Golf & Country Club in Goose Creek, South Carolina Cypress Creek Country Club in Boynton Beach, Florida Cypress Links at Lakewood Ranch Golf & Country Club in Lakewood Ranch, Florida Darlington Country Club (front nine) in Darlington, South Carolina Diamondback Golf Club in Loris, South Carolina Dogwood Hills Golf Course in Walterboro, South Carolina Emporia Country Club in Emporia, Virginia FarmLinks at Pursell Farms in Sylacauga, Alabama Fort Jackson Golf Club Short Course in Columbia, South Carolina Georgetown Country Club in Georgetown, Texas Golfview Golf and Racquet Club in Ft. Myers, Florida The Hamptons Golf & Country Club in Auburndale, Florida Harry L. Jones Sr. Golf Course in Charlotte, North Carolina Indigo Creek Golf Club in Murrells Inlet, South Carolina Inland Greens Par Three in Wilmington, North Carolina International Golf Club in Murrells Inlet, South Carolina

Jimmy Clay Course in Austin, Texas Kerr Lake Country Club in Henderson, North Carolina King's Grant Golf Club in Fayetteville, North Carolina Land O Lakes Golf Club in Whiteville, North Carolina Legacy @ Jordan Lake in Chapel Hill, North Carolina The Little Course at Corner Lane in Franklin, Tennessee Lockwood Folly Golf Links in Holden Beach, North Carolina Majestic Golf Club in Lehigh Acres, Florida Mt. Pleasant Country Club in Mt. Pleasant, North Carolina Myrtlewood Pine Hills Golf Club in Myrtle Beach, South Carolina Oak Island Par Three at South Harbor in Oak Island, North Carolina Ole Still Golf Club in Hickory, North Carolina Palm Beach Leisureville Golf Club in Boynton Beach, Florida Paradise Point Golf Course in Camp Lejuene, North Carolina Paschal Golf Club in Wake Forest, North Carolina PGA Village in Port St. Lucie, Florida Pine Lakes International Club in Myrtle Beach, South Carolina The Range at Leon Springs in Boerne, Texas Red Bank Plantation in Goose Creek, South Carolina Riegelwood Country Club in Riegelwood, North Carolina Rivers Edge Golf Club and Plantation in Shallotte, North Carolina Riviera Golf Club in Naples, Florida Rock Creek Golf & Country Club in Jacksonville, North Carolina Sandpiper Bay Golf Club in Sunset Beach, North Carolina Scotfield Golf Course in Enfield, North Carolina Sergeant Jasper Golf Club in Ridgeland, South Carolina Shaftsbury Glen Golf & Fish Club in Conway, South Carolina South Granville Country Club in Creedmoor, North Carolina The Spur at Northwoods in Columbia, South Carolina Sunnybreeze Golf Course in Arcadia, Florida Tarpon Woods Golf Club in Harbor, Florida Texas A&M Campus Course in College Station, Texas Timberlake Golf Club in Clinton, North Carolina The Tradition Golf Club in Pawleys Island, South Carolina TSTC Research Golf Course in Waco, Texas Uncle Remus Golf Course in Eatonton, Georgia University of Tennessee Intercollegiate Golf Practice Facility in Knoxville. Tennessee Vache Grasse Country Club in Greenwood AR Valley Pine Country Club in Lasker, North Carolina Vivian Johnson Memorial in Hamer, South Carolina Ward County Golf Course in Monahans, Texas Wilmar Golf Club in Raleigh, North Carolina Woodbridge Golf Club in Kings Mountain, North Carolina Woodfin Ridge Country Club in Inman, South Carolina Woodlake Resort and Country Club in Vass, North Carolina YMCA Par Three in Lakeland, Florida Zebulon Country Club in Zebulon, North Carolina



Tifdwarf Bermudagrass has been one of the most popular choices for putting greens for over 40 years. This fine-bladed, dark green hybrid bermudagrass has good rooting capabilities, is adapted to low mowing heights, and provides an excellent putting surface. Tifdwarf performs well in high heat and offers good shade tolerance.

Applications

Golf Course Tees

Golf Course Greens

Product Features

- Dark green color with fine texture
- Good rooting capabilities
- Dense turf
- Good shade tolerance
- Tolerates heavy traffic and low mowing
- Good drought and heat tolerance
- Overseeds well

Characteristics

Color	Dark Green
Fall Color Retention	Good
Spring Green-Up	Good
Establishment	Moderate
Wear Tolerance	Good
Injury Recovery	Good
Heat Tolerance	Good
Cold Tolerance	Good
Shade Tolerance	Good
Drought Tolerance	Good
Salt Tolerance	Fair
Mowing Heights	0.125" – 0.25" (3.175 mm – 6.35 mm)





WARM SEASON TURFGRASS PRODUCTS

Atlas Turf Zoysias





Innovation[®] is a new zoysiagrass hybrid co-developed by Texas A&M and Kansas State universities with fine texture and a deep root system. Besides offering excellent shade tolerance and good drought tolerance, Innovation features improved grow-in rate, spring green-up, injury recovery, and cold tolerance compared to other zoysias.

Applications



Product Features

- Superior shade tolerance
- Excellent cold tolerance
- Very good salt tolerance
- Improved grow-in rate compared to other zoysias
- Improved spring green-up and fall color retention compared to other zoysias
- Good disease tolerance and resistance to insects

Characteristics

Color	Dark Green
Fall Color Retention	Very Good
Spring Green-Up	Excellent
Establishment	Slow
Wear Tolerance	Good
Injury Recovery	Good
Heat Tolerance	Good
Cold Tolerance	Excellent
Shade Tolerance	Excellent
Drought Tolerance	Good
Salt Tolerance	Very Good
Mowing Heights	0.5" – 2" (12.7 mm – 50.8 mm)







Zorro[™] Zoysia, developed by Texas A&M, is highly rated by the National Turfgrass Evaluation Program (NTEP) and thrives in all warm season climates through the transition zone. This highdensity turfgrass offers an excellent playing surface and features exceptional shade tolerance and good drought tolerance.

Applications

Golf Course Roughs 🕴 Golf Course Fairways 🏾 👆 Landscaping

Golf Course Tees

Product Features

- Excellent shade tolerance •
- Shiny, deep green color
- Fine texture
- · Highly rated among zoysias for establishment and recovery
- Good drought tolerance
- · Very good salt tolerance

Characteristics

Color	Dark Green
Fall Color Retention	Good
Spring Green-Up	Very Good
Establishment	Slow
Wear Tolerance	Good
Injury Recovery	Good
Heat Tolerance	Good
Cold Tolerance	Good
Shade Tolerance	Excellent
Drought Tolerance	Good
Salt Tolerance	Very Good
Mowing Heights	0.5" – 2" (12.7 mm – 50.8 mm)



Turf on a Global Scale[™] AtlasTurf.com











Atlas Turf Ryegrasses





Atlas Turf offers an extensive line of perennial ryegrasses developed by Pure-Seed Testing, Inc. Spotlight selections from the complete portfolio include:



The Turfgrass Water Conservation Alliance (TWCA) uses independent transparent analysis of objective data in its qualification process. Drought tolerant turfgrasses earning TWCA qualification are demonstrated to use up to 40% less water.

Sun Hawk Perennial Ryegrass

Sun Hawk is the new perennial ryegrass variety from Pure-Seed Testing. As a TWCAqualified turfgrass, Sun Hawk offers superior drought tolerance. Sun Hawk also provides excellent wear tolerance and resistance to gray leaf spot and red thread.

- Drought resistance
- Wear tolerance
- Gray leaf spot resistance
- Red thread resistance



Gray Hawk Perennial Ryegrass

Gray Hawk is the elite perennial ryegrass qualified by the TWCA for its remarkable drought tolerance. Gray Hawk is suitable for golf courses, sports fields, overseeding, and landscaping.

- Dark green color
- Superior drought tolerance
- Excellent disease resistance
- High density
- Outstanding traffic tolerance
- Quick establishment
- Rapid recovery



PureSport™ Premium Athletic Brand

PureSport Premium Athletic Brand is the turfgrass mixture custom designed for each unique sports field application.

- Dark green color
- Rapid establishment
- Incredible wear tolerance
- Fast recovery
- Excellent disease resistance
- Heat and drought tolerance
- Salt tolerance

SEEDING RATE: The recommended seeding rate for golf and sports applications is 450-650 pounds per acre (505-730 kilograms per hectare).



Silver Dollar Perennial Ryegrass

Silver Dollar Perennial Ryegrass provides an excellent turf surface for sports fields, golf course overseeding, and landscaping.

- Very dark green color
- Fine texture
- Excellent disease resistance
- Exceptional traffic tolerance
- Quick establishment
- Excellent heat tolerance
- Moderate salt tolerance
- Good drought tolerance

Silver Sport Perennial Ryegrass

Silver Sport Perennial Ryegrass is the elite release adapted for permanent turf use as well as overseeding.

- Dark green color
- Excellent traffic tolerance
- Outstanding disease resistance
- Superior shade tolerance
- Fast establishment
- Advanced spreading capabilities
- Rapid recovery
- High density

Silver Sun Perennial Ryegrass Silver Sun Perennial Ryegrass provides a premium playing surface for golf courses, sports fields, and overseeding.

- Dark green color
- Exceptional drought tolerance
- High density
- Excellent traffic tolerance
- Moderate heat tolerance
- Great resistance to gray leaf spot
- Excellent drought tolerance
- Good heat tolerance

SUNRYE[™] Perennial Ryegrass Brand

SUNRYE Perennial Ryegrass Brand is a blend designed for rapid results in a wide range of climates for golf courses, sports fields, and overseeding.

- Deep dark green color
- Rapid establishment
- Incredible wear tolerance
- Fast recovery
- Excellent disease resistance
- Heat and drought tolerance
- Salt tolerance

SEEDING RATE: The recommended seeding rate for golf and sports applications is 450-650 pounds per acre (505-730 kilograms per hectare).





Atlas Turf Bentgrasses





Atlas Turf offers an extensive line of creeping bentgrasses by Pure-Seed Testing, Inc. Spotlight selections from the complete portfolio include:

SE SRASS
interseeding
ist Poa annua
TGRASS
A55
interseeding
•

	PC 2.0 (PC2 IN EU)	PURE SELECT
6	PC D D D D D D D D D D	CEEPING BENTGRASS
USES	Greens, tees, fairways, interseeding	Greens, tees, fairways, interseeding
TRAITS	 Medium green color Very fine leaf texture Dense, upright growth habit Good wear tolerance Very good winter color Great spring green-up Exceptional ability to compete against Poa annua Good disease resistance Good heat and cold tolerance Drought tolerance 	 Medium green color Very fine leaf texture Dense, upright growth habit Fast recovery Exceptional disease resistance Strong heat and cold tolerance Excellent wear tolerance Very good winter color Quick spring green-up
	PUREGREEN	PENNLINKS II
	PUREGREEN A D V A N C E D GREEPING BENTGRASS	PennLinksI
USES	Greens, tees, interseeding	Greens, tees, fairways, interseeding
TRAITS	 Medium green color Rapid establishment High density Disease resistant Aggressive root structure 	 Medium dark green color Drought tolerance Heat tolerance Early spring green-up Semi-aggressive growth habit

Atlas Turf Fescues



Atlas Turf offers an extensive line of fescues developed by Pure-Seed Testing, Inc. to provide exceptional playability, color, disease resistance, drought resistance, salt tolerance, and quick establishment. Spotlight selections from the complete portfolio include:

Relentless Tall Fescue

Relentless Tall Fescue is known for its excellent brown patch resistance, billbug resistance, and stem rust resistance. It is a low-maintenance grass that requires less fertilizer and water than other types of turfgrass.

- Excellent brown patch resistance
- Good disease resistance
- TWCA-qualified drought resistance
- Heat tolerance
- Low maintenance

Lifeguard Tall Fescue

Lifeguard Tall Fescue is qualified by the Turfgrass Water Conservation Alliance for its remarkable drought tolerance. Lifeguard provides an excellent turf surface for golf course roughs, sports fields, landscaping, infrastructure, and erosion control.

- Medium to dark green color
- Exceptional drought tolerance
- Excellent summer turf performance
- Excellent heat tolerance
- Strong disease resistance
- Very good shade tolerance
- Performs well in the transition zone

Rain Dance Tall Fescue

Rain Dance Tall Fescue is qualified by the Turfgrass Water Conservation Alliance for its remarkable drought tolerance. Rain Dance is adapted for golf course roughs, sports fields, landscape, infrastructure, and erosion control.

- Dark green color
- Exceptional drought tolerance
- Excellent salt tolerance
- Excellent summer turf performance
- Good disease resistance
- Good wear tolerance
- Very good shade tolerance
- Performs well in the transition zone



Saltillo Tall Fescue

Saltillo Tall Fescue is qualified by the Turfgrass Water Conservation Alliance for its remarkable drought tolerance. Saltillo is adapted for golf course roughs, sports fields, landscape, infrastructure, and erosion control.

- Dark green color
- Exceptional drought tolerance
- Exceptional salt tolerance
- Excellent summer turf performance
- Very good disease resistance
- Good wear tolerance

SunGold™ Premium Tall Fescue Brand

SunGold[™] Premium Tall Fescue Brand is qualified by the Turfgrass Water Conservation Alliance for its remarkable drought tolerance. This blend of quality tall fescues is adapted for golf course roughs, sports fields, infrastructure, and erosion control.

- Dark green color
- Exceptional drought tolerance
- Increased tillering for self-repair
- Rapid spreading capability
- Extensive root system
- Quick germination
- Excellent disease resistance
- Improved salt tolerance

Big Horn GT Hard Fescue

Big Horn GT is an American sheeps fescue with a pleasing blue-green color combined with good turf density and fine texture.

- TWCA-qualified drought tolerance
- Cold tolerance
- Good vertical growth
- Excellent density





SEEDING RATE: The recommended seeding rate is 220-375 pounds per acre (247-420 kilograms per hectare).



Kentucky Bluegrasses



Atlas Turf offers an extensive line of Kentucky bluegrasses developed by Pure-Seed Testing, Inc. Spotlight selections from the complete portfolio include:

Desert Dream

Kentucky Bluegrass Desert Dream is one of Pure-Seed Testing's top-performing Kentucky Bluegrass varieties. The Turfgrass Water Conservation Alliance has qualified Desert Dream as drought tolerant.

- Bright green color
- Exceptional drought tolerance
- Excellent disease resistance
- Early spring green-up
- Excellent winter color retention
- Top-rated shade tolerance
- Excellent summer performance

Full Moon Kentucky Bluegrass

Full Moon is a hybrid Kentucky bluegrass with drought tolerance certified by the Turfgrass Water Conservation Alliance.

- Rich, dark green color
- Medium-fine leaf texture
- Exceptional drought tolerance
- Very good heat tolerance
- Very good winter color retention
- Rust resistant



Moonlight SLT Kentucky Bluegrass

Moonlight SLT is an elite, low-growing Kentucky bluegrass appropriate for golf course tees, fairways, and roughs, as well as sports fields.

- · Dark green color
- Improved salt tolerance
- Very good rust and leaf spot resistance
- Good winter color
- Lower growth habit
- Good shade tolerance

Endurance Kentucky Bluegrass

Endurance is the latest Midnight type Kentucky Bluegrass from Pure-Seed Testing.

- Glyphosate tolerance
- Brown patch resistance
- Heat tolerance
- Low inputs
- Traffic tolerance

Tirem Kentucky Bluegrass

Tirem Kentucky Bluegrass is qualified by the Turfgrass Water Conservation Alliance for statistically significant water-saving potential.

- Exceptional drought tolerance
- · Remarkable winter color retention
- Early spring-green-up
- Very good heat tolerance
- Good salt tolerance
- Good disease resistance
- Rapid germination and establishment

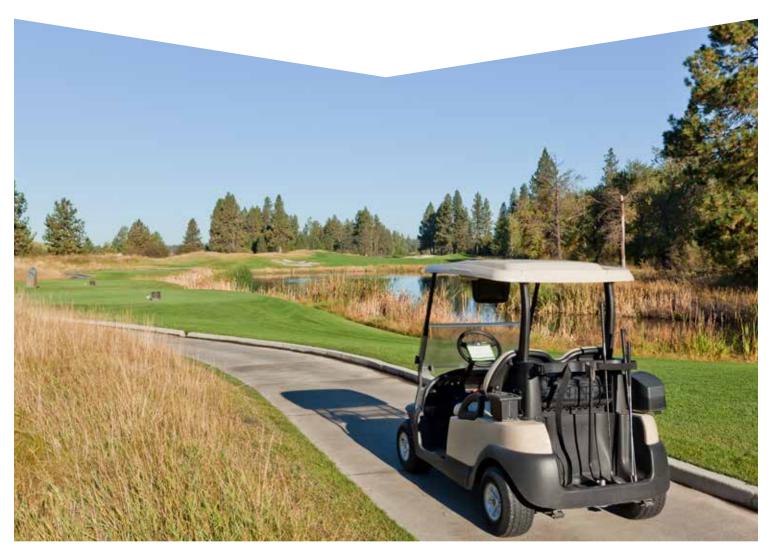




SEEDING RATE: The recommended seeding rate is 87-130 pounds per acre (98-146 kilograms per hectare).

NATIVE GRASSES TURFGRASS PRODUCTS

Atlas Turf Native Grasses



ATLAS LINKS

Atlas Links for Warm Season Applications

Atlas Links Warm Season Native Grass Mix consists of a custom blended seed mixture specially designed to thrive in warm climates. Whether planted in harsh desert conditions or tropical, high humidity locations, Atlas Links is well adapted to provide coverage with an aesthetically pleasing appearance. Atlas Links can be left unmowed and provides excellent erosion control on slopes. Requiring minimal fertility and minimal irrigation, Atlas Links is an economical native grass solution.

SEEDING RATES

For best results, the recommended seeding rate is 50 pounds per acre (56 kilograms per hectare).

Atlas Links for Cool Season Applications

Atlas Links Cool Season Native Grass Mix is a custom blended seed mixture of fine fescues designed to withstand the harsh low cutting heights of bunker faces and roughs. For erosion control on slopes, Atlas Links can be left unmowed. The mixture includes Soil Guard and Big Horn GT varieties from Pure Seed, which offers the aesthetically pleasing look of long-grassed links.

> Atlas Links is shade tolerant and requires minimal fertility as well as minimal irrigation. Light rates of glyphosate can be used for weed control making it an excellent choice for golf courses, roadsides, and site stabilization applications.

SEEDING RATES:

For best results, the recommended seeding rate is 45 pounds per acre (50 kilograms per hectare).

ATLAS TURF NATIVE GRASSES

For golf course and landscape projects, native grasses are a cost-efficient way to create natural areas requiring less maintenance and inputs. From a design perspective, native grasses provide a distinct visual appeal, adding variety and accentuating design features. In addition, native grasses create habitats for wildlife, including birds, butterflies, and other pollinators. Native grasses are also excellent for reclamation and erosion control. Atlas Turf offers an extensive selection of native grasses. Some of our favorites include:

BAHIAGRASS

Bahiagrass is an aggressive, warm season perennial grass with a Y-shaped seed head. It is low growing with deep roots and a light green color. With flat, course-textured leaves, bahiagrass can grow 8 to 30 inches tall and is used in turf and erosion control applications.

Great for:

- Golf Course Roughs
- Reclamation
- Erosion Control

BIG BLUESTEM

Big Bluestem is a perennial warm season native grass that is tufted and sod-forming. This tall grass reaches a mature height of 6 to 8 feet if unmowed and protected from grazing. Its seed heads normally have three spikelets.

Great for:

- Reclamation
- Landscaping
- Erosion Control

BIG HORN GT

Big Horn GT hard fescue offers natural glyphosate resistance and is also drought and disease resistant. With blue-green color, fine texture, and good turf density, Big Horn GT grows to a height of 14 to 18 inches.

Great for:

- Golf Course Roughs
- Reclamation
- Landscaping
- Erosion Control

BLUE GRAMA

Blue Grama is a common warm season perennial native bunchgrass reaching 10 to 20 inches when mature. It reproduces by tillering and by seed. Mature seed heads are curved, resembling an eyebrow.

Great for:

- Reclamation
- Landscaping
- Erosion Control

BUFFALO GRASS

Buffalo Grass is a perennial, lowgrowing warm season native sodforming grass. Leaf blades are 10 to 12 inches long but fall over to give the turf a short appearance. Buffalo Grass has a low fertility requirement and grows best on clay loams.

Great for:

- Golf Course Roughs
- Reclamation
- Landscaping
- Erosion Control

GIANT DROPSEED

Giant Dropseed is a perennial warm season native bunchgrass that can grow up to 24 inches tall. It prefers light, sandy, and medium loamy soils that are well-drained. It cannot grow in shade. Giant Dropseed is very drought tolerant.

Great for:

- Reclamation
- Landscaping
- Erosion Control



INDIAN RICEGRASS

Indian Ricegrass is a perennial cool season native bunchgrass growing 8 to 30 inches tall with very narrow, rolled leaf blades. It is very winter hardy and prefers dry, primarily loamy soils. It performs well in the stabilization of soils.

Great for:

- Reclamation
- Landscaping
- Erosion Control

INDIANGRASS

Indiangrass is a perennial warm season native bunchgrass that grows 3 to 5 feet tall. It grows best in well-drained soils and prefers open areas with plenty of sunlight.

Great for:

- Reclamation
- Landscaping
- Erosion Control

LITTLE BLUESTEM

Little Bluestem is a slow growing perennial warm season bunchgrass. It can grow as tall as 18 inches in fertile soil. It has coarse stems, which are purple in color. It is well adapted to many different soils and climates and can thrive in soils with high salinity.

Great for:

- Reclamation
- Landscaping
- Erosion Control

PURPLE THREE-AWN

Purple Three-Awn is a perennial warm season native bunchgrass that grows up to 16 inches in height. It is deep rooting and prefers well-drained soils. It is very drought tolerant and grows well in desert conditions.

Great for:

- Reclamation
- Landscaping
- Erosion Control

SAND DROPSEED

Sand Dropseed is a perennial warm season native bunchgrass growing 16 to 40 inches tall. It is without rhizomes and commonly grows on sandy soils. Sand Dropseed is commonly used to control erosion.

Great for:

- Reclamation
- Landscaping
- Erosion Control

SOIL GUARD

With a medium vertical growth rate and bright green color, Soil Guard hard fescue is well suited for stability and erosion control applications or for providing attractive ground cover. Soil Guard is drought and glyphosate-tolerant and grows 12 to18 inches tall.

Great for:

- Golf Course Roughs
- Reclamation
- Landscaping
- Erosion Control

SPARTINA

Spartina is a warm season perennial native grass perfect for soil stabilization at water's edge or for erosion control. Spartina is strong and tall, reaching 6 to 8 feet with aggressive growth.

Great for:

- Reclamation
- Landscaping
- Erosion Control

SWITCHGRASS

Switchgrass is a perennial warm season sod-forming native grass that grows 3 to 5 feet tall. Switchgrass is very tolerant of poor soils, flooding, and drought. It performs well in various climates. It is widely used for reclamation.

Great for:

- Reclamation
- Landscaping
- Erosion Control

WEEPING LOVEGRASS

Weeping Lovegrass is a rapidly growing perennial warm season bunchgrass. It can reach heights of 2 to 4 feet. Weeping Lovegrass prefers lighttextured, well-drained soils and can excel in various climates.

Great for:

- Reclamation
- Landscaping
- Erosion Control



PLANTING RATES



WARM SEASON VEGETATIVE PLANTING RATES

	Georgia Bushels per	US Bushels per 1000	Georgia Bushels per	US Bushels per 100
	1000 Square Feet	Square Feet	100 Square Meters	Square Meters
Mach 1° Ultradwarf Bermudagrass	25-40 bushels	6.5-10.5 bushels	27-43 bushels	7.5-11.5 bushels
MiniVerde [®] Ultradwarf Bermudagrass	25-40 bushels	6.5-10.5 bushels	27-43 bushels	7.5-11.5 bushels
Sunday™ Ultra-Dwarf Bermudagrass	25-40 bushels	6.5-10.5 bushels	27-43 bushels	7.5-11.5 bushels
Tifdwarf Bermudagrass	25-40 bushels	6.5-10.5 bushels	27-43 bushels	7.5-11.5 bushels
Platinum TE [®] Paspalum	25-40 bushels	6.5-10.5 bushels	27-43 bushels	7.5-11.5 bushels
Tees				
	Georgia Bushels per 1000 Square Feet	US Bushels per 1000 Square Feet	Georgia Bushels per 100 Square Meters	US Bushels per 100 Square Meters
Platinum TE® Paspalum	10-20 bushels	2.5-5.5 bushels	11-22 bushels	3-6 bushels
Celebration [®] Bermudagrass	10-20 bushels	2.5-5.5 bushels	11-22 bushels	3-6 bushels
Latitude 36° Bermudagrass	10-20 bushels	2.5-5.5 bushels	11-22 bushels	3-6 bushels
NorthBridge [®] Bermudagrass	10-20 bushels	2.5-5.5 bushels	11-22 bushels	3-6 bushels
TifWay 419 Bermudagrass	10-20 bushels	2.5-5.5 bushels	11-22 bushels	3-6 bushels
Fairways/Rough				
	Georgia Bushels per Acre	US Bushels per Acre	Georgia Bushels per Hectare	US Bushels per Hectare
Platinum TE® Paspalum	500-800 bushels	135-215 bushels	1235-1975 bushels	330-530 bushels
Celebration [®] Bermudagrass	500-800 bushels	135-215 bushels	1235-1975 bushels	330-530 bushels
Latitude 36° Bermudagrass	500-800 bushels	135-215 bushels	1235-1975 bushels	330-530 bushels
NorthBridge [®] Bermudagrass	500-800 bushels	135-215 bushels	1235-1975 bushels	330-530 bushels
Tifway 419 Bermudagrass	500-800 bushels	135-215 bushels	1235-1975 bushels	330-530 bushels
Innovation [®] Zoysia	800-1000 bushels	215-270 bushels	1975-2470 bushels	530-665 bushels
Zorro™ Zoysia	800-1000 bushels	215-270 bushels	1975-2470 bushels	530-665 bushels
Soccer/Athletic Fields				
	Georgia Bushels per Acre	US Bushels per Acre	Georgia Bushels per Hectare	US Bushels per Hectare
Platinum TE® Paspalum	500-800 bushels	135-215 bushels	1235-1975 bushels	330-530 bushels
Celebration [®] Bermudagrass	500-800 bushels	135-215 bushels	1235-1975 bushels	330-530 bushels
Latitude 36° Bermudagrass	500-800 bushels	135-215 bushels	1235-1975 bushels	330-530 bushels
NorthBridge [®] Bermudagrass	500-800 bushels	135-215 bushels	1235-1975 bushels	330-530 bushels
	•••••••••••••••••••••••••••••••••••••••			

WARM SEASON SEED PLANTING RATES

Putting Greens		
	Pounds per 1000 Square Feet	Grams per 100 Square Meters
Pure Dynasty® Seeded Paspalum	3	1465
Pure Dynasty with ACCe™ Seeded Paspalum	3	1465
Tees		
	Pounds per 1000 Square Feet	Grams per 100 Square Meters
Pure Dynasty [®] Seeded Paspalum	1.5-3	735-1465
Pure Dynasty with ACCe™ Seeded Paspalum	1.5-3	735-1465
North Shore SLT™ Seeded Bermudagrass	1.5-3	735-1465
Sun Queen™ Elite Bermudagrass	1.5-3	735-1465
PurePro™ Seeded Bermudagrass	1.5-3	735-1465
Fairways/Rough		
	Pounds per Acre	Kilograms per Hectare
Pure Dynasty® Seeded Paspalum	65-130	73-146
Pure Dynasty with ACCe™ Seeded Paspalum	65-130	73-146
North Shore SLT™ Seeded Bermudagrass	65-130	73-146
Sun Queen™ Elite Bermudagrass	65-130	73-146
PurePro™ Seeded Bermudagrass	65-130	73-146
Soccer/Athletic Fields		
	Pounds per Acre	Kilograms per Hectare
Pure Dynasty [®] Seeded Paspalum	65-130	73-146
Pure Dynasty with ACCe™ Seeded Paspalum	65-130	73-146
North Shore SLT [™] Seeded Bermudagrass	65-130	73-146
Sun Queen™ Elite Bermudagrass	65-130	73-146

65-130

73-146

PurePro[™] Seeded Bermudagrass

OVERSEEDING PLANTING RATES

Tees		
	Pounds per 1000 Square Feet	Kilograms per 100 Square Meters
Gray Hawk Perennial Ryegrass	10-15	5-7
Silver Dollar Perennial Ryegrass	10-15	5-7
Silver Sport Perennial Ryegrass	10-15	5-7
Silver Sun Perennial Ryegrass	10-15	5-7
Sun Hawk Perennial Ryegrass	10-15	5-7
SUNRYE™ Perennial Ryegrass Blend	10-15	5-7
Fairways/Rough		
	Pounds per Acre	Kilograms per Hectare
Gray Hawk Perennial Ryegrass	450-650	505-730
Silver Dollar Perennial Ryegrass	450-650	505-730
Silver Sport Perennial Ryegrass	450-650	505-730
Silver Sun Perennial Ryegrass	450-650	505-730
Sun Hawk Perennial Ryegrass	450-650	505-730
SUNRYE™ Perennial Ryegrass Blend	450-650	505-730
Soccer/Athletic Fields		
	Pounds per Acre	Kilograms per Hectare
Gray Hawk Perennial Ryegrass	450-650	505-730
PureSport™ Perennial Ryegrass	450-650	505-730
Silver Dollar Perennial Ryegrass	450-650	505-730
Silver Sport Perennial Ryegrass	450-650	505-730
Silver Sun Perennial Ryegrass	450-650	505-730
Sun Hawk Perennial Ryegrass	450-650	505-730
SUNRYE™ Perennial Ryegrass Blend	450-650	505-730

COOL SEASON SEED PLANTING RATES

	Pounds per 1000 Square Feet	Grams per 100 Square Meter
A+ Creeping Bentgrass	1-1.5	490-730
Crystal BlueLinks Creeping Bentgrass	1-1.5	490-730
PC 2.0 (PC2 in EU) Creeping Bentgrass	1-1.5	490-730
PennLinks II Creeping Bentgrass	1-1.5	490-730
Pure Distinction Creeping Bentgrass	1-1.5	490-730
Pure Eclipse Creeping Bentgrass	1-1.5	490-730
PureGreen Creeping Bentgrass	1-1.5	490-730
Pure Select Creeping Bentgrass	1-1.5	490-730
Tees		
	Pounds per 1000 Square Feet	Grams per 100 Square Meter
A+ Creeping Bentgrass	1-1.5	490-730
Crystal BlueLinks Creeping Bentgrass	1-1.5	490-730
PC 2.0 (PC2 in EU) Creeping Bentgrass	1-1.5	490-730
PennLinks II Creeping Bentgrass	1-1.5	490-730
Pure Eclipse Creeping Bentgrass	1-1.5	490-730
PureGreen Creeping Bentgrass	1-1.5	490-730
Pure Select Creeping Bentgrass	1-1.5	490-730
Fairways		
	Pounds per Acre	Kilograms per Hectare
A+ Creeping Bentgrass	1-1.5	490-730
Crystal BlueLinks Creeping Bentgrass	1-1.5	490-730
PC 2.0 (PC2 in EU) Creeping Bentgrass	1-1.5	490-730
PennLinks II Creeping Bentgrass	1-1.5	490-730
Pure Eclipse Creeping Bentgrass	1-1.5	490-730
Pure Select Creeping Bentgrass	1-1.5	490-730
Rough		
	Pounds per Acre	Kilograms per Hectare
Desert Dream Kentucky Bluegrass	87-130	98-146
Full Moon Kentucky Bluegrass	87-130	98-146
Saltillo Tall Fescue	220-375	247-420
SunGold™ Tall Fescue Blend	220-375	247-420
Soccer/Athletic Fields		·
	Pounds per Acre	Kilograms per Hectare
Desett Dream Kentucky Bluegrass	87-130	98-146
Desert Dream Kentucky Bluegrass	87-130	98-146

NATIVE SEED PLANTING RATES

Native Mixes		
	Pounds per Acre	Kilograms per Hectare
Atlas Links (Warm Season)	50	56
Atlas Links (Cool Season)	45	50

Native Grass Species			
	Pounds per Acre	Kilograms per Hectare	
Bahiagrass	15-30	17-34	
Big Bluestem	5-8	5.6-9	
Big Horn GT	87-175	98-196	
Blue Grama	3-5	3.4-5.6	
Buffalo Grass	10-15	11.2-16.8	
Giant Dropseed	2-3	2.3-3.4	
Indian Ricegrass	4-6	4.5-6.8	
Indiangrass	5-8	5.6-9	
Little Bluestem	4-6	4.5-6.8	
Purple Three-Awn	6-8	6.8-9	
Sand Dropseed	.5-1	0.56-1.12	
Soil Guard	87-175	98-196	
Switchgrass	2-3	2.3-3.4	
Weeping Lovegrass	1-2	1.12-2.3	



Notes

Notes

ATLAS TURF IS PROUD TO BE AFFILIATED WITH THE FOLLOWING ORGANIZATIONS:











Turf on a Global ScaleTM

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