

Best Management Practices

Installation and Establishment

Installation and the care taken during the initial days that follow are the most critical factors in determining the long-term quality and performance of EMPIRE Turf. EMPIRE is a tough, hardy turfgrass that once established, produces a beautiful lifetime lawn, landscape, sports turf or golf course.

Proper care, including pre-installation soil preparation and limiting time on the pallet to less than 24 hours, yields positive results. Improper care can cause damage or death of your newly installed grass.

Irrigation:

- Prior to installation, ensure irrigation systems are working properly and covering all areas to be planted.
- Water immediately after installation and ensure that soil is moist to a depth of 3".
- For most irrigation systems, 1 hour per zone should be enough to provide sufficient water.
- During very hot conditions, it may be necessary to increase the time per zone.
- Water every day, 1 hour per zone, for the first 2 weeks.
- Make sure you are not overwatering.
- Shaded areas and heavy soils require less water than full-sun areas and sandy soils.
- When proper rooting is evident (normally after 2 weeks), reduce irrigation to 3 times a week.

Mowing:

- Set your mower to 1 – 1.5 inches and start to mow within 10 days of installation.
- If possible, bag clippings.
- Prior to mowing, make certain that the lawn is level to prevent scalping.

Fertility:

- Use a starter fertilizer that is low in Nitrogen.
- Apply within a week of installation and water in thoroughly.
- Read label for proper rates and follow instructions.

Post Establishment

Mowing:

- Mowing Height: 1-2".
- Mow weekly during the active growing season.
- Mow as needed during cooler weather.
- Never cut more than 1/3 of the total length of the blade at any one mowing.
- If excess clippings are collecting on top of EMPIRE, consider bagging or vacuuming.

Insecticides:

- **For any insecticide application, always read and follow label directions carefully.**
- Early identification and treatment of insect stress minimizes inputs and injury.
- Make routine observations of the landscape, and be aware of seasonal pests like billbugs, armyworms and webworms.
- For Billbug larvae/grubs, use a systemic insecticide. Products containing Imidacloprid are highly recommended.
- For best results, make a spring and fall application to break the pest cycle.
- For adult forms of Billbug, use a broad spectrum insecticide. Products containing pyrethroid such as bifenthrin, deltamethrin and beta-cyhalothrin are widely available.
- Control armyworms and webworms with the same pyrethroid products mentioned above.
- Consult with local experts for insecticide recommendations.
- If necessary, you can also reference the *University of Florida's Pest Control Guide for Turfgrass Managers* and/or *University of Georgia Turfgrass Pest Control Recommendations for Professionals* for more detailed information.



Herbicides:

- **For any herbicide application, always read and follow label directions carefully.**
- **Improper use of herbicides can severely damage or kill EMPIRE.**
- Proper mowing, irrigation and fertilization of EMPIRE will reduce weed problems.
- Identify the type of weed causing the problem before using any chemical control.
- Consult with local experts for herbicide recommendations.
- If necessary, you can also reference the *University of Florida's Pest Control Guide for Turfgrass Managers* and/or *University of Georgia Turfgrass Pest Control Recommendations for Professionals* for more detailed information

Fungicides:

- **For any fungicide application, always read and follow label directions carefully.**
- Early identification and treatment of disease stress minimizes inputs and injury.
- Make routine observations of the landscape being aware of unusual symptoms.
- Consider a broad-spectrum fungicide application if predictable seasonal problems are noted.
- For best results with any fungicide, you must make 2-3 applications 14-21 days apart.
- Consult with local experts for fungicide recommendations.
- If necessary, you can also reference the *University of Florida's Pest Control Guide for Turfgrass Managers* and/or *University of Georgia Turfgrass Pest Control Recommendations for Professionals* for more detailed information

Irrigation:

- Watering requirements are greatly dependent on soil type, season, geography and other factors.
- Established EMPIRE exhibits drought tolerance due to improved plant genetics and growth characteristics.
- Ensure irrigation systems are working properly and covering all areas covered by EMPIRE.
- Make routine observations of the landscape and learn the signs (i.e., wilting) that indicate when irrigation is required.
- Shaded areas and heavy soils require less water than full-sun areas and sandy soils.
- Encourage deep root growth by watering until the soil is moist to a depth of 3", shallow watering encourages shallow roots.
- As a general rule, EMPIRE should receive ¾-1" of water once a week from irrigation or rainfall.
- Infrequent deep watering maximizes drought resistance and tolerance.

Fertility:

- Perform soil tests to understand your soil type(s) and condition and best determine your specific fertility needs.
- Generally EMPIRE requires 3 fertilizer applications per year: spring, summer and fall.
- Apply 1 lb. of Nitrogen per 1000 square feet per seasonal application, for a total of 3 lbs. N/1000sqft/year.
- Use a fertilizer with a 1-0-1 ratio, such as a 15-0-15.
- Excess of Nitrogen can lead to disease and insect problems.
- If experiencing problems with insects and disease, temporarily stop using N. To improve color, use Iron (Fe) instead N.

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