

## ***Best Management Practices for Florida***

### ***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***

#### **Fertility:**

- Perform soil tests to understand your soil type(s) and condition and best determine your specific fertility needs.
- We recommend commercial formulas such as 15-0-15, 15-0-30 or 10-0-10. For Florida, it is important that the last number (potassium) is higher than 10.
- Generally EMPIRE requires 3 fertilizer applications per year: spring, summer and fall.
- During the course of a year, apply 2 lbs. of N/1000 sqft.
- Use a higher rate in the summer (1 lb. N/1000) and a lighter rate in the spring and particularly in the fall (0.5 lb. N/1000) to avoid disease problems.
- Pay attention to blackout periods in the summer in your area. Use a slow release N product prior to the blackout and something more soluble when the blackout is over.
- To enhance color only (with little growth) use a source of Fe (Iron) alone or incorporated into your formula. If available, apply micronutrients like Mg (Magnesium), Zn (Zinc) and B (Boron).
- Remember that an excess of Nitrogen can lead to disease and insect problems.

#### **Mowing:**

- Mowing Height: 1½” - 2”.
- Mow once per week in the summer and when necessary in the spring/fall.
- Never cut more than 1/3 of the total length of the blade at any one mowing. If you are “scalping” the lawn, increase mowing frequency.

- When mowing in the spring, remove all lawn clippings via bagging or vacuuming if possible. During summer, if mowing frequency is right, you shouldn't need to remove clippings.



The Proven Zoysia Grass®

#### 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. "Merit" or similar product will control larva and "Talstar" or similar product will control adults.
  - For best results, make a spring and fall preventative application for billbug control.
  - 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.
- If mealy bugs are present, reduce fertilization and apply a systemic insecticide like "Merit" or similar product.
- 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.
- In a climate like Florida's, make a preventative application in spring and in fall for disease control in EMPIRE Turf.
- Large patch is a very common disease, which leaves large patches of grass or circles in the lawn.
  - Effective control through use of "Heritage" or "Armada" or a similar product.
- Pythium is also found in Florida and is commonly referred to as Root Rot.
  - Effective control through use of "Heritage" of a similar product.
- Take All Patch is a disease that causes yellowing of leaves and a darkening of grass roots.
  - It requires a very specific fungicide for control. Use "Banner MaXX" or similar product.
- Consider a broad-spectrum fungicide application if predictable seasonal problems are noted. Remember that overwatering can and will lead to disease issues in EMPIRE Turf.
- For best results with any fungicide used to treat an active disease, 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:

- Irrigation requirements are separated into 3 soil types: sand, mix and organic (or muck). If you have sandier soils, you may need to split your weekly irrigation into two watering's per week to avoid wilt during the hot and dry periods.
- General irrigation recommendations are ¾ to 1 inch per week, typically done once per week. You will need to observe the morning wilt or overall condition of the grass to determine your irrigation needs and water only when needed.
- Be aware of rainfall and your watering restrictions or allowable days to water and avoid watering at night. If possible, you may want to consider a soil moisture sensor system and ensure that it is regularly checked.
- A soil conditioner incorporated into the soil profile will increase your soil's ability to retain moisture and reduce irrigation needs.
- 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.
- Infrequent deep watering maximizes drought resistance and tolerance.