

## Know Your Turfgrass

Manilagrass (*Zoysia matrella*)

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This is a series of basic management guidelines for the different tropical turfgrass species.

More details are available in CUGE Standard CS B01:2010 Guidelines for Tropical Turfgrass Establishment and Maintenance, please visit:

<http://www.cuge.com.sg/research/catalog.php>

### Maintenance Practices for *Zoysia matrella*

#### 1. Lawn Construction

Necessary pre-plant operations: grading, drainage, rootzone soil modification, soil testing, starter fertiliser & soil amendment application – refer to CUGE Research Technical Note “Tropical Turfgrass Establishment: Lawn Construction” (RTN 01-2010)

#### 2. Planting<sup>1</sup>

##### Vegetative Methods:

- Close turfing: irregular, small sod pieces placed together
- Open turfing (plugging): 50 – 70 mm diameter rooted pieces planted on 300 mm centres
- Close and open turfing result in irregular turf surface, requiring at least two post-plant topdressings and rollings
- Sodding: uniformly thick, cut turf sheets or rolls placed together. Roll after planting.. Results in high quality, level turf surface

#### 3. Mowing<sup>2</sup>

##### Streetscapes:

- Not recommended for use in areas covered by tree canopies
- Height: 45 – 60 mm
- Frequency: 14 – 21 days
- Mower: Rotary or Flail (Backpack in irregular, obstructed areas)

##### Parks:

- Height: 25 – 40 mm
- Frequency: 7 – 12 days<sup>3</sup>
- Mower: Rotary or Flail (Backpack in irregular, obstructed areas)

##### Event and sports lawns:

- Height: 20 – 30 mm
- Frequency: 6 - 9 days
- Mower: Rotary or Flail (Backpack in irregular, obstructed areas)

#### 4. Fertilisation<sup>4</sup>

**Streetscapes:** Not Recommended for use in areas covered by tree canopies. 0.1 - 0.2 kg N/100 square metres/month

#### Checklist for *Zoysia matrella*

Turf Characteristics	Level
Density	High
Colour	Medium Green
Texture	Fine
Establishment	Slow
Fertility Requirement	Medium
Uses	Level
Streetscapes	Medium Maintenance
Parks	Medium Maintenance
Events/ Sport Lawn	High Maintenance
Tolerance to:	Level
Traffic (trampling)	Good
Shade	Moderate
Drought	Moderate
Wet Soil	Moderate
Diseases/ Insects	Good
Salinity	Good

**Parks:** 0.2 - 0.4 kg N/100 square metres/month  
**Events and sports lawns:** 0.4 - 0.5 kg N/100 square metres/month

## 5. Aerification (Hollow Or Solid Tining)<sup>5</sup>

**Streetscapes:** not recommended for use in these areas  
**Parks:** annually (low use) – every 1 to 3 months (high use)  
**Event and sports lawns:** monthly

## 6. Topdressing

**Streetscapes:** if needed to repair and level field  
**Parks:** if needed to repair and level field  
**Event and sports lawns:** apply following aerification. Use either mature compost or coarse sand

## 7. Vertical Mowing

Annually (low use) – every 6 months (high use)



Inflorescence details

### Footnotes:

1. For more detailed planting instructions, including seedbed preparation, post seeding mulching, fertilisation, and irrigation, see RTN "Tropical Turfgrass Establishment: Planting" (RTN 02-2010).
2. For more detailed mowing instructions, see RTN "Tropical Turfgrass Mowing" (RTN 03-2010).
3. Mowing frequency and height are positively related, i.e. longer frequencies require greater heights.
4. Use turfgrass type fertiliser, with basic N-P-K ratio of 4-1-2 or 4-1-1. Properly calibrate spreader or sprayer to apply above rates on the basis of N (nitrogen), NOT total fertiliser (ex. urea is 45% N, therefore 1 kg N = 2.2 kg urea). For more detailed fertilisation instructions, see RTN "Tropical Turfgrass Fertilisation" (RTN 01-2011).
5. Either solid or hollow tines may be used. To be effective, penetration depth must be at least 70 mm. Actual depth of penetration needed will depend on extent and depth of soil compaction. To aid penetration, aerification should be done when soil is moist, but not wet (aerifying wet soils increases soil compaction)