

|                   |   |                        |                        |
|-------------------|---|------------------------|------------------------|
| <b>TRADEMARK:</b> | <b>Empire®</b>  | <b>BOTANICAL NAME:</b> | <b>Zoysia japonica</b> |
| <b>PBR:</b>       | <b>SS500</b> This variety is protected by Australian Plant Breeder's Rights (PBR) |                        |                        |

## KEY FEATURES:



- Empire® Zoysia's nickname is EZ grass and is commonly referred to as the "easy grass".
- Empire® has been proven to significantly strengthen soil by 48%, improving erosion control of roadsides, steep embankments, batters, stream embankment, retaining walls and foreshores compared to Couch (3.2%) and Kikuyu (9.7%)<sup>1</sup>.
- Empire® is one of the most popular Zoysia grasses in Australia due to its low maintenance.
- Empire® has improved pest and disease resistance and tolerates low to moderate salinity.
- Empire® has excellent fast initial growth across the ground compared to other Zoysias. Its runners are highly branching, which provides excellent recovery from wear.
- Quickly becoming known as the tough, hardwearing turf, Empire® can survive on natural rainfall and if left to its own devices, saves on long-term mowing, pesticides, de-thatching and fertilisers.
- Can endure long periods of non-attention, but when well maintained Empire® Zoysia looks lush and maintains colour year-round, so is suited to a large range of commercial purposes.
- Empire® meets the Erosion Control Australian Standard No# AS5181: 2017 – *Use and installation of turf as an erosion, nutrient and sediment control measure.*

## MORPHOLOGY:

|                   |                   |                          |                          |                       |
|-------------------|-------------------|--------------------------|--------------------------|-----------------------|
| <b>PLANT</b>      | Growth:           | Stolons and rhizomes     | Vigour:                  | Strong to very strong |
| <b>STOLON</b>     | Stolon length:    | Long to very long        | Stolon diameter of node: | Medium to broad       |
|                   | Internode length: | Long (35mm)              | Internode thickness:     | Broad                 |
|                   | Internode colour: | Greyed-purple (RHS 183B) |                          |                       |
| <b>LEAF BLADE</b> | Shape:            | Ligulate                 | Length:                  | Very long (120-140mm) |
|                   | Width:            | Medium (2-2.3mm)         | Colour:                  | Green (RHS 137B)      |

## PERFORMANCE:

|                                  |   |
|----------------------------------|---|
| <b>PURPOSE</b>                   | All-purpose turf: Domestic, roadwork's and projects that require LOW long-term maintenance.                               |
| <b>ESTABLISHMENT</b>             | Establish spring to autumn. Slow growing in winter.   |
| <b>MOWING</b>                    | About 2-4 mows per year for civil/projects to maintain a dense sward and for erosion control for drainage works.          |
| <b>MAXIMUM UNMOWN HEIGHT</b>     | 100-150mm   |
| <b>MAINTENANCE</b>               | Low ( <i>far less than Couch and Kikuyu</i> ).  |
| <b>RECOMMENDED MOWING HEIGHT</b> | 25-50mm   |
| <b>WATER REQUIREMENTS</b>        | Required for establishment, then can exist on rainfall due to deep root system ( <i>far less than Couch and Kikuyu</i> ). |
| <b>COLOUR</b>                    | Vibrant in summer and, although dormant in winter, it maintains colour well.  |
| <b>FERTILISER</b>                | Recommended 1 a year ( <i>far less than Couch and Kikuyu</i> ).   |
| <b>DROUGHT TOLERANCE</b>         | High  |
| <b>SALT TOLERANCE</b>            | High ( <i>higher tolerance than Buffalo and Couch</i> ).  |

Continued...

| PERFORMANCE (continued): |  |
|--------------------------|--|
| WEED RESISTANCE          | Out competes weeds due to its dense sward when maintained.   |
| WEAR AND TEAR RECOVERY   | High ( <i>based on silica content</i> ).   |
| SEED HEAD                | In early spring, EZ grass produces a non-fertile purple seed head. At other times this is an indication of stress, poor soil, polluted water etc...  |
| COLD TOLERANCE           | Tolerates to -12°C. Following frost, regenerates well after first mow.   |
| HUMIDITY TOLERANCE       | High: Rust may appear in humidity if nutritionally deficient, cosmetic only, but can cause damage to leaf structure if untreated. More prone when establishing, and less likely once established.  |
| SHADE TOLERANCE          | Med 40%-50% shade tolerance ( <i>higher tolerance than Couch and Kikuyu</i> ).   |
| PEST RESISTANCE          | Less susceptible to lawn grubs and other pests.  |
| THATCHING                | Low ( <i>no need for vertimowing when less maintenance is required</i> ).  |
| DISEASE RESISTANCE       | High   |
| USAGE                    | <ul style="list-style-type: none"> <li>• Roadwork's across Australia for erosion control.</li> <li>• Windy coastal areas due to tolerance of higher salt levels.</li> <li>• High density domestic housing developments.</li> <li>• Shopping centres and large landscaping projects.</li> </ul> |

| CURRENT PLANTINGS INCLUDE:  |  |
|---|--|
| NSW   | QLD  |
| <ul style="list-style-type: none"> <li>• M1 Motor Way, Ourimbah.</li> <li>• South Street Project , Windsor Rd to Richmond Rd, Schofields.</li> <li>• Richmond Rd, Marsden Park.</li> <li>• M7 Richmond Rd Exit.</li> <li>• Cowpasture Rd, Hoxton Park.</li> <li>• Highway improvements at Beresfield, Newcastle.</li> </ul> | <ul style="list-style-type: none"> <li>• Pelican Waters, Sunshine Coast.</li> <li>• Beaudesert – Boonah Rd at Wyalong Dam.</li> <li>• Harmony, Sunshine Coast.</li> <li>• Sunshine Coast University Hospital, Kawana.</li> </ul> |

| AVAILABILITY:   |
|---|
| NSW, QLD, VIC, SA, ACT & WA (not yet available in NT) |

#### ADVISORY:

John Keleher, Agronomist, TPI Board Member & Turf Farmer • Matt Roche, Agronomist & Consultant at Australian Sports Turf Consultants

#### REFERENCES:

1. Layt, T. & Paananen, I. (2007) Quantifying the strengthening of soil by commonly used landscape plants and turf.
2. Scattini, W. (2001) Zoysia japonica Zoysia Grass 'SS-500'. Plant Varieties Journal Vol. 13, No. 3.

#### LICENSING & COMMERCIAL ENQUIRIES:

TurfBreed Pty Ltd's contracts under license a large network of growers across the country to grow Empire® Zoysia fit for purpose and region.

To discuss how Empire® Zoysia can become part of your new project or as a long-term erosion control measure, please contact our Territory Managers.

**SAMANTHA COLLITON**  
 BUSINESS DEVELOPMENT  
 MANAGER - QLD  
 E: scolliton@turfbreed.com.au  
 M: 0455 533 372

**ANN MCKEON**  
 BUSINESS DEVELOPMENT  
 MANAGER - NSW  
 E: amckeon@turfbreed.com.au  
 M: 0477 755 581

**STEVE BURT (Managing Director)**  
 BUSINESS DEVELOPMENT  
 MANAGER - VIC, SA, NT & WA  
 E: sburt@turfbreed.com.au  
 M: 0419 007 398



PO Box 2034  
 Box Hill North, Victoria 3129  
 P (Administration): 1800 572 174  
 F: 03 8677 9499  
 E: admin@turfbreed.com.au  
 www.turfbreed.com.au