

# NURSERY APPLICATIONS

## ■ WHO IS BOWISE

BioWise, a joint development initiative between SITA Organics and the Water Corporation of Western Australia, produces high quality compost for nurseries. This material can be sold as pure compost and potting mix for direct sale to the public, and applied as a soil conditioner for plant/tree propagation, or garden maintenance in nurseries. BioWise compost is derived from green organics, biosolids and food residue, and is carefully matured to ensure compliance with Australian Standard AS4454 Composts, Mulches and Soil Conditioners. BioWise compost is regularly tested to ensure a high-quality, consistent product. BioWise compost has the following characteristics that are beneficial for nurseries:

## ■ GRADES

- Different grades of compost are produced for use in different applications
- The product resembles a dark topsoil and is screened to meet fine particle size grading, therefore seedling development will not be hampered by large particles
- Fine grade for capillary uptake and good drainage

## ■ PRESENTATION

- Pleasant earthy odour
- BioWise product resembles a rich dark topsoil
- Light and crumbly texture

## ■ BOWISE COMPOST FOR NURSERIES

- Promotes natural processes in an artificial potting environment
- The stability and maturity of the BioWise compost prevents undesirable side effects such as the formation of organic acids and odour
- Has slow release nutrients at levels which promote seedling growth
- Promotes beneficial microbial activity in the rhizosphere, resulting in the suppression of diseases caused by plant pathogens



- Promotes diversity of micro-organisms in the soil and sustains beneficial organisms present in healthy soil
- Buffers pH when added to mineral media, such as perlite or sand
- Improves the water holding capacity of mineral container media and availability of water to plants and prevents waterlogging
- Decreases bulk density, while maintaining adequate air volume in the medium
- Supports additional fertiliser application if required
- BioWise compost can be used as a substitute for peat moss in potting mixtures, which is advantageous, because peat is a non renewable and expensive resource
- BioWise compost contains information on organic matter, weed seeds, pH, nutrients and pathogens. Instructions are also provided for use.

## ■ BIOCHEMICAL PARAMETERS AND QUALITY

- BioWise compost is consistent, mature and biologically and structurally stable, thus anaerobic and toxicity issues are negligible
- Increases soil nutrient content and satisfies plant nutrient requirements, in a mix of quick and slow release nitrogen, potassium, phosphorus, and micronutrients such as calcium and magnesium

- Promotes microbial activity for soil aggregate formation and plant disease suppression
- Insect, dieback and plant pathogen free
- BioWise product complies with stringent microbial and chemical contaminant criteria for unrestricted use (ARMCANZ Grade A) and all criteria for AS4454 Australian Standards
- High in trace elements

## ■ PHYSICAL PARAMETERS AND QUALITY

- BioWise compost is free of large stones, pieces of wood and other undesirable contaminants, such as glass, which may damage roots of young plants
- BioWise product is free of viable weed seeds which are destroyed during the composting process
- Discourages root damage to young plants, due to low levels of macroinvertebrates (for example, slaters)

## ■ PRODUCT SPECIFICATIONS

Particle size grading:

- Fine and medium grade compost/mulch

Moisture content: 35-55%

C:N ratio: 15-20:1

pH: 6.0 – 8.0

Total Nitrogen: 0.8 – 1.7%

Total Phosphorus: 0.1 – 1.0%

(suitable for a variety of native and exotic plants, excluding P sensitive species)

NH<sub>4</sub> + NO<sub>3</sub> Nitrogen: 110 – 210mg/L

NO<sub>3</sub>/NH<sub>4</sub> ratio: requires >0.14. All samples so far have been <0.1

NDI: 1.23

Organic matter: >35%

Note: all criteria above comply with AS4454 Australian Standard – Composts, Soil Conditioners and Mulches

BioWise can provide production details such as temperature records and turning times for each batch of compost.

## ■ RECOMMENDED APPLICATION RATES AND METHODS

### Potted plants

To take root properly, plants must have the texture provided by soil. Potting mix should contain 1/3 to 1/4 compost, 1/3 garden loam and 1/3 perlite or sand. Do not use pure compost for potted plants.

### Gardens

0.5 – 1.5 cm compost on top of soil. If possible till 5 – 10 cm into the top 15 - 20 cm of soil.

To establish a new garden or prepare a garden for planting add 10 – 15 cm of compost and till to a depth of 20 - 25 cm. If the soil is very poor, add extra compost to the top 6 – 10 cm of soil.



PO Box 428 Kwinana WA 6966

Phone: 9410 0477 Fax: 9410 0488 Email: [biowise@starwon.com.au](mailto:biowise@starwon.com.au)