



## P7 Protocol

### **Growing trial methodology for performance standard for amateur growing media-DEFRA P7-adopted methodology**

#### **Objective**

Following on from the DEFRA White paper in 2011 work packages were established. Of these work packages the following project was determined: P7 Performance standards for amateur products. The aim was to produce a performance standard, initially, for multipurpose growing media with other products to be included during later phases of the project.

The method below is based on the EN standard: EN16086-1:2011, with minor adaptations.

It was agreed through earlier work to use tomato (F1), and petunia (F1 other than 'white') as the test species.

#### **Method to be followed:**

According to the EN method:

A 100% peat control will be used throughout. A medium grade peat (such as 0-12mm grade) will be used for potting on of the plants as control, which will be lime adjusted to a pH range of 5.5-6.0 and have a standard base fertiliser, (such as 15-10-20 TE) added at 1.5 g/l. Note the fertiliser is as suggested in the EN method. Wetting agent added as per normal procedure.

*[It is recommended that one of the GMA members involved in the testing and audit process agree on an annual basis to manufacture 1m<sup>3</sup> of the control mix which is then sent to other members for them to use as the control for the coming years trials.]*

Note:- 5 liters of the control substrate and the MP used in the test will be bagged up and kept for 12months from the test, should there be a need for a repeat test after an audit.

#### **Test procedure and crops:**

Replicates: 5 pots X 3 reps of the test material (e.g. Multi-purpose compost submitted for responsible sourcing audit)

Saucers will be used for all pots as in the EN method.

Control: 5 pots X 3 reps

Trial is to be randomized on a bench, using lights if required.

#### **Tomatoes (F1)**

Tomato seeds (F1) are to be sown into cellular modular trays (1cmx1cm) in a peat based seeding substrate.

Seedlings at first true leaf stage, one per pot, are then pricked off into pots (9cm/3inch dia) filled with the test material, (Multi-Purpose compost submitted for the responsible sourcing audit). A peat-based control will be used - See above.

**Petunia plugs (F1, preferably not white)**

Plugs, one per pot, are then inserted into pots (9cm/3" dia) filled with the test material, (Multi-Purpose compost submitted for the responsible sourcing audit). A peat-based control will be used - See above.

Watering: according to the EN method this will be done in respect of the plant requirement to meet good practice. Watering only no liquid feeding to be used as we are evaluating the product itself.

Glasshouse conditions: 20 by day and min of 16 by night.

Lights: as required

Assessment: tomato: 1<sup>st</sup> truss flowers in the control, petunia: 2 weeks after first flowers opening in the control, 4-6 weeks approx. in total.

- Fresh density, % moisture, pH, EC, NH<sub>4</sub>N, NO<sub>3</sub>N, P and K of each sample test material and control at the beginning and end of the trial
- Flowering date (petunia)
- Number of flowers (petunia)
- Fresh weight (tomato and petunia)
- Photographs of each treatment:
  - 2 pots of each treatment beside 2 pots of the control for each photo.
  - Plants need to be in exactly the same position each time for comparison's sake, preferably against a 5cm square scaled background
  - Mount a camera on a tripod so that camera angle remains constant
  - Best use a white or pale blue background for contrast
- Report to include procedure followed, plant data, stat analysis of data including graphs, and photographs, conclusions, within 4 weeks of the end date of the trial.

The trial results will be available for audit purposes and kept on file by the manufacturer, for at least 36 months.

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