

# Products & Solutions

for seed centres



Plant the Planet



## The BCC Germination Table



ergonomic working height



glass shutters fitted with handles for easy handling



lighting periods are controlled automatically



the wicks absorb water and the filter paper keep moist at all times

## BCC GERMINATION TABLE

The germination test is made to establish the maximum number of seed which can germinate under optimum conditions (i.e. light, moisture and temperature).

This information is important for the seed plant manager to determine and keep records of the quality and value of the seed lot and also for the nursery manager to determine how many seed needs to be sown in each cell. Furthermore, it gives the nursery manager a good idea how many seedlings he can expect from a specific seed lot.

The Germination Table is used in gene banks, containerized nurseries, research and development centers and small to large-scale seed processing plants.

### THE PROCESS

The Germination Table has a large central reservoir, which is filled with water to the maximal level. Make sure and check water levels every 3-5 days due to the evaporation effect. Water temperature and length of day/night, etc., are easily adjusted and set depending on your specific need. The regulator can also be connected to a computer for continuous temperature monitoring and recording.

The 3 stainless steel germination plates are placed on the table after which the 120mm high aluminum frame is placed in position. The frame allows for an ergonomic working height when working on the table. Paper filters with wicks are placed on the table by pushing the wicks through the slits in the germination plates. The wicks absorb water and the filter paper kept moist at all times. A seed applicator, which is connected to a vacuum cleaner, is used to pick seed up and place it on the filter paper and further a bell jar is placed over each filter paper. The glass shutters are placed on top of the frame to improve the homogeneity of the germination environment and minimize evaporation.

### General testing procedure:

- According to ISTA rules germination is tested on the pure seed fraction.
- Normally a test consists of 4 replicates of 100 seeds at random from the pure seed.
- The seeds are uniformly spread on a moist substrate – use seed applicator to place seed on the filter paper.

- The germination table should be adjusted according to the following parameters:
  - Night: 16 hours @ 20°C e.g. 16h00-08h00
  - Day: 8 hours @ 30°C e.g. 08h00-16h00
- Germinated seeds should be counted after 7 days, after 14 days and finally after 21 days. If there are seed that germinates after 21 days, continue the count until 28 days.
- The germinant should be 4 times its seed length.
  - The germination percent = the sum of germination of the 4 replicates ÷ 4
  - The germination energy = the number of seed germinated after 7 days ÷ the total number of seed germinating at the end of the test.



large capacity for germination tests

## OPERATIONAL BENEFITS & KEY FEATURES

- Minimum and maximum temperatures are controlled automatically.
- Lighting periods are controlled automatically.
- Stainless steel construction ensures durability and prevents corrosion.
- Glass shutters ensure a homogenous microclimate around the bell jars and minimize evaporation.
- Glass shutters fitted with handles for easy handling.
- Ergonomic working height.
- Large capacity for germination tests.
- A seed applicator (optional extra) allows for easy placement of seed on the filter papers.
- Easy to clean.



## ACCESSORIES AND EXTRA FEATURES

The apparatus is equipped with a cupboard for storage of bell jars, filter papers and other items.

Seed applicator

## TECHNICAL DATA

<b>Dimensions (L x W x H):</b>	<b>1900 x 800 x 1850 mm</b>
<b>Weight:</b>	<b>195kg</b>
<b>Power supply:</b>	<b>1 x 230V, 50Hz</b>
<b>Power requirement:</b>	<b>1.6 kW</b>
<b>Temperature range:</b>	<b>10-35°C (at ambient temperature of 18°C)</b>
<b>Number of bell jars:</b>	<b>120</b>
<b>The accuracy of temperature control</b>	<b>±1°C</b>
<b>Alarm system</b>	<b>built-in</b>
<b>Number of bell jars:</b>	<b>144</b>
<b>Bell jars sizes:</b>	<b>Ø 71 mm and Ø 82 mm</b>
<b>Filter paper sizes:</b>	<b>Ø 75 mm and Ø 85 mm</b>

### Requirements:

Sufficient ventilation in room to avoid build-up of heat generated by the light and compressor of the Germination Table.

Water tap/hose for filling and cleaning purposes.

Floor drain for draining of water.

