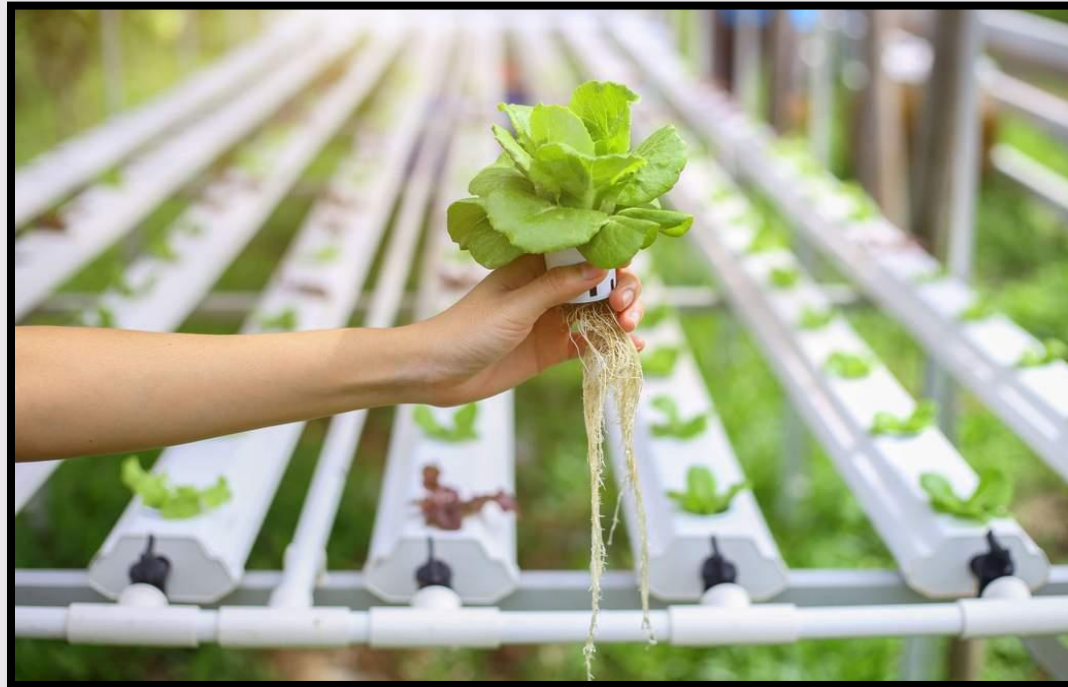




Centurion
UNIVERSITY

*Shaping Lives...
Empowering Communities...*

Center for Smart Agriculture



Module 1: Organic Production: Horticultural Crops
Session 1: Raising of Seedling and Nursery
Management



Centurion
UNIVERSITY
*Shaping Lives...
Empowering Communities...*

Aim: To understand the usage of different media in raising of seedlings in organic nursery

Raising of seedlings:

Time of sowing /initiation of propagules production depend on how long the seedlings will take to have an optimum size of a seedling (with good rooting and about 20 cm tall) and coincidence of its ready availability at the time of initiation of monsoon(July for South-West monsoon and October for North-East monsoon areas).

The number of plants required to be produced from a nursery can be calculated as below.

Number of plants required for the season= W

Mortality in nursery= X

Transportation/culling loss= Y

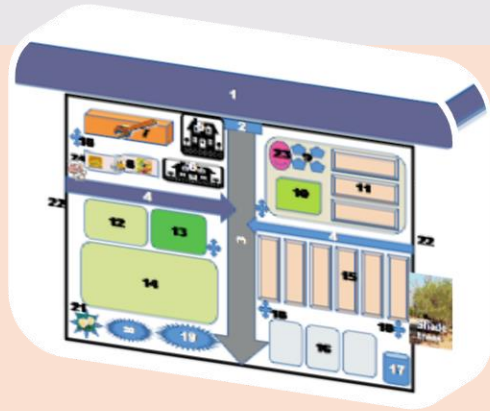
Seedling required of buffer loss = Z

Total seedlings required to be produced from the nursery= $W+X+Y+Z$



Centurio
UNIVERSITY
Shaping Lives...
Empowering Communities

COMPONENTS OF A NURSERY



LAYOUT



INPUTS

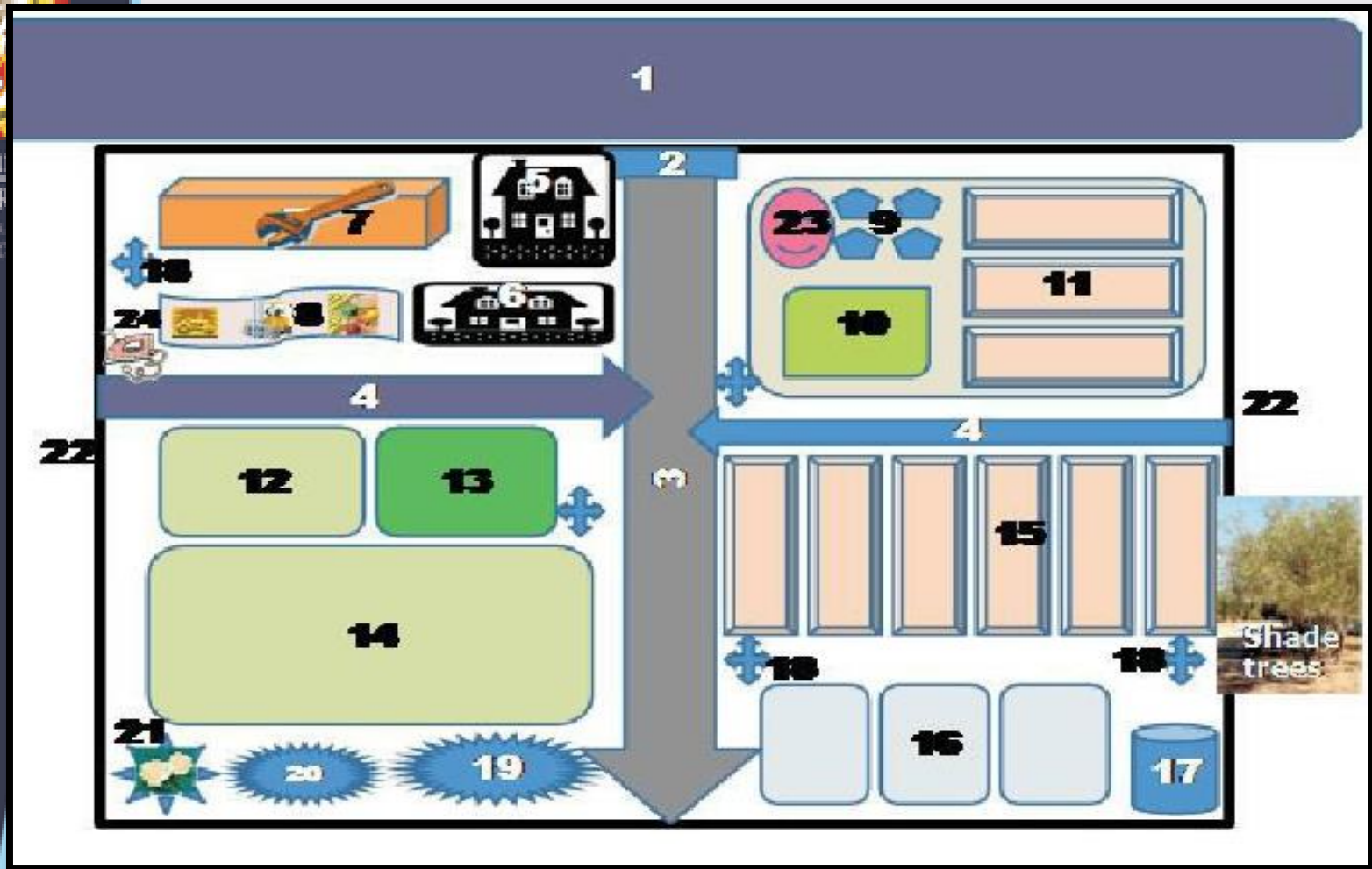


MOTHER BED



MEDIA FOR
PROPAGATION

1. Layout:



(1:Main road, 2:Gate, 3:Nursery road, 4:Path, 5:Office, 6:Labor shed, 7:Store rooms, 8:Vehicle shed, 9:Potted plants, 10:Saplings, 11:Seedlings, 12:Propagation/mist-chamber, 13:Shade net house, 14:Polyhouse, 15:Seedling beds, 16:Mother beds, 17:Well/water source, 18:Water pipeline, 19:Soil dumping, 20: Compost area, 21:Mother plants, 22:Fencing, 23:Plant library, 24:Generator/Electricity room).

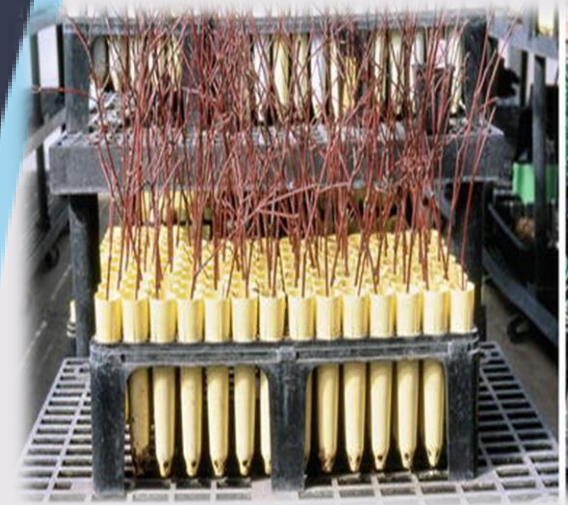


**Centurion
UNIVERSITY**

*Shaping Lives...
Empowering Communities*

2. Inputs

Containers, nursery media, propagules, water, fertilizers, chemicals, electricity, tools, equipment, machineries and labor are the major input to nursery.





**Centurion
UNIVERSITY**
*Shaping Lives...
Empowering Communities...*

• **Mother bed:**

- They are seed sowing beds prepared with fertile and clean nursery mixtures (Soil, sand and FYM).
- Generally they are rectangular in shape with 1 to 1.8 m width and 1.8 (in hills) to 12 m (in plains) length.
- The lengthy side of the bed should be oriented towards the sun (east-west) so that shading can be done.

Types of mother beds: Raised bed, Sunken bed, Level beds



RAISED BED



SUNKEN BED

**Soil
Mixture**

Vermiculite

**4. Media for
propagating
nursery plants**

Sand

**Sphagnum
Moss**

Peat



Centurion
UNIVERSITY
Shaping Lives...
Empowering Communities...

Thank you...