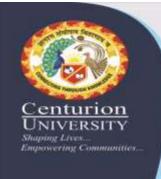


Center for Smart Agriculture Protected floriculture

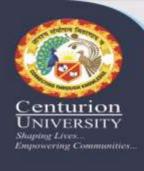
Module 1:Importance and types of protected structure

Session 3: Types of protected structure

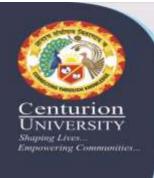
(Shade houses and Screen houses)



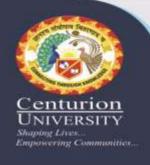
- Shade houses and screen houses are the predominant types of porous-roof structures.
- The main difference between them is the color and mesh of their nets.
- Shade houses are usually made of different colours
- ✓ Black,
- ✓ Green,
- ✓ White



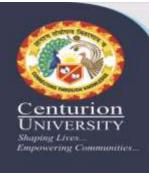
- Screen houses protect crops from high winds and prevent entry of vectors
- ✓ Mites
- ✓ Thrips
- ✓ Aphids
- They are usually covered with white nets.



- The level of protection a screen house provides against arthropod pests is related to the mesh of the net used in the structure.
- In this case the porosity of the nets will represent the porosity of the windbreak.
- Disadvantages of screen houses:
- ✓ Low air movement & High temperatures.



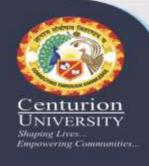
The use of screen houses in subtropical and tropical areas may be limited during the rainy season because of the high incidence of physiological disorders and propagation of disease-causing pathogens.



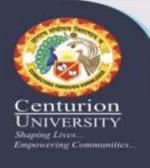
- Shade net house is a framed structure made of materials:
- ✓ GI pipes
- ✓ Angle iron
- ✓ Wood or bamboo
- It is covered with plastics net having different shade percentages.



- A wide range of shading nets is available in the market which is defined on the basis of the percentage of shade they deliver to the plant growing under them.
- Shade nets are available in different shade percentages or shade factor i.e 35%, 40%, 50% 75% and 90%.
- In most of cases 50% is recommended for covering general shade house.

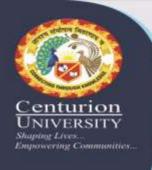




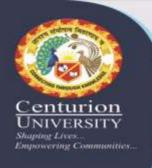


Advantages

- Helps in cultivation of flower plants, foliage plants, medicinal and aromatic plants, vegetables & spices.
- Used for raising nurseries of fruits and vegetable.
- Helps to enhance yield during summer season.
- Protection against pest attack.

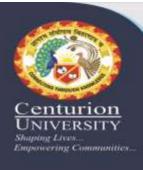


- Protects crops from natural weather disturbances such as wind, rain, hail, frost, snow, bird and insects.
- Used in production of graft saplings and reducing its mortality during hot summer days.
- Used for hardening tissue culture plants.



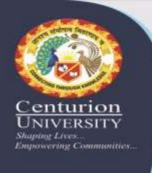
Applications of shade nets

- Nursery propagation, floriculture, indoor plants, vegetables, tea, coffee, spices.
- Hardening of plants.
- Cattle shed, Fish Pond, Poultry Farming etc.
- Drying of various Agro products.
- Acts as a wind breaker.

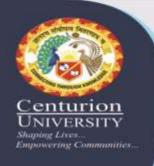


Net houses

- Shade house and net house are often synonymously used but more correctly a net house is enclosed with perforated screen primarily to act as a barrier for the entry of insects and pests.
- Insect-proof nylon nets are available in different intensities of perforations, ranging from 25 mesh to 60 mesh.



- Nets of 40 or higher mesh are effective means to control entry of most flying insects and save crop from diseases.
- Higher mesh size, however, reduces the air exchange of the structure.
- UV- stabilized nets are now available which have a longer life.



THANK YOU