



State of the Art



Mist Chamber

SBL04112017-02:16



Championing a Cause

It's not just a dream that clings our eyes. Punctuated by silence and dotted with challenges: It's a journey propelled by an ambition to make this world a better place to live in. To have a smile on the faces of millions. To inspire all round growth for prosperity.

Dr. Sudan Netr Paul
Chairman & Managing Director

Vision

" To up lift the socio-economic status of farmers and contribute to the preservation and of forests."

31⁺ YEARS

PROVIDING SOLUTIONS



Saveer is a science & technology company, based in New Delhi, India and is consistently providing sustainable solutions essential to a better, safer and healthier life of people everywhere. Since our inception in 1980 we cherished a dream to be one of the most dynamic companies in the sphere of Science and Technology. Through cutting edge technology and constant innovations Saveer has become a leading company making ultra modern Greenhouses, Mistchamber, Phytotron facilities with Growth Chambers, Environment Simulation Systems, and all other related equipments.

Saveer is the first and the only greenhouse company in India that has in house Research and Development Centre recognised by DSIR, Ministry of Science and Technology, Govt. of India. The centre has been instrumental in taking the Company's technological expertise to the next level.

We have installed 2000⁺ Greenhouses and Mistchamber both within and outside India. We transcended boundaries by registering presence in Alegria, Antarctica, Ethopia, Korea, Nepal, Seychelles, Srilanka and Vietnam to name a few.

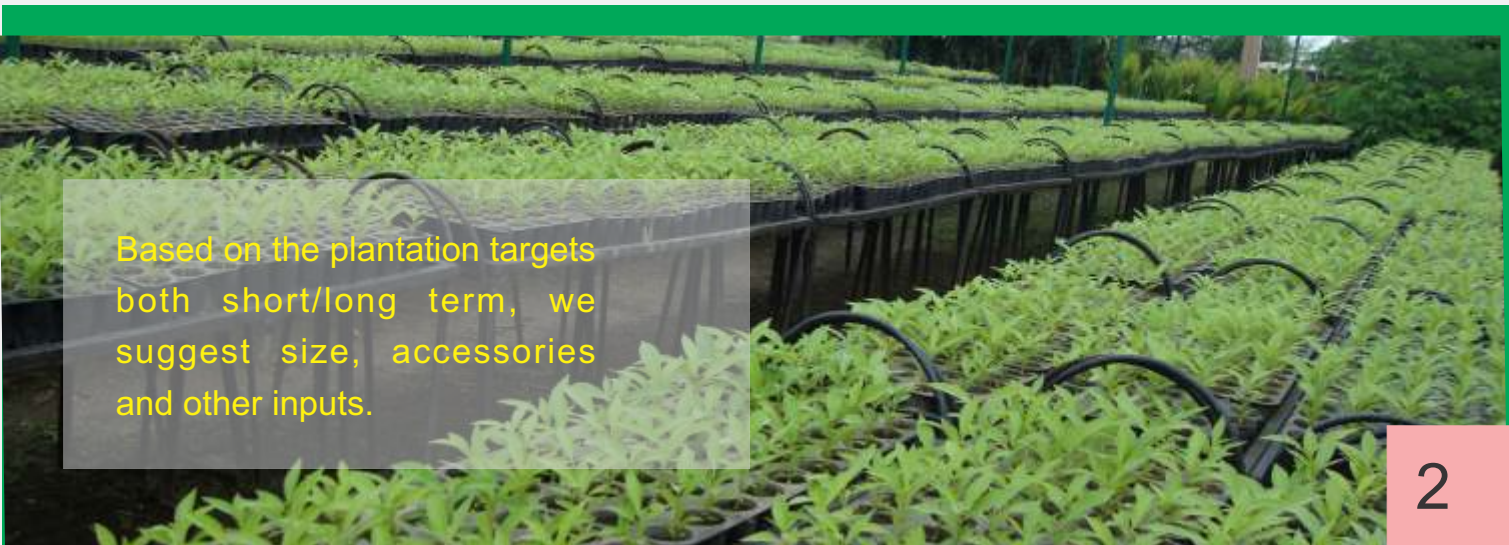
Many Corporate houses (MNC's) have been benefitted by using our state of the art Mistchambers specially designed for different applications. This technology helped them in realizing huge target for plantation year after year. Our Mistchambers are specially designed for both sexual and asexual propagation of forest/fruit plants

We strongly believe that the seeds of success lie in the aptitude for Innovation, Professional Integrity, Strong Leadership and Meticulous Delivery Model. These are the characteristics that help us to realize professional goals while inspiring many a new dreams...ever!



We are largest producers of Mist Chamber in the world. Our mist chambers are most economical and available in different sizes.

- Forest reserves are considered backbone for environment, growing economy and a support for the people living nearby.
- Exploitation of forest reserves has lead to the depleted forests and deforestation. Everywhere in scientific forums and otherwise it is felt that we need huge quantity of plant material for afforestation and strengthening of the present forests.
- Tree Seedling of the desired species can be grown either through seed or clonal multiplication. Conventional forest nurseries can not meet this requirement so it requires a very high capacity Mist Chamber of the international standard which has capacity to produce millions of seedlings round the year.



Based on the plantation targets both short/long term, we suggest size, accessories and other inputs.

Main Features of New Technology State of the Art Mist Chamber Facility



Structure

Complete Structure will be made by hot galvanised G. I. Pipes (so rust resistant). It with stands strong normal wind load and rains.

Cladding

Polycarbonate multiwall /DL sheets. This sheet can with stand in heavy rain and hail storm.



Roof Shading

Automatically control roof shading system, as per the requirement to reduce heat load inside the facility in peak summer.



Humidity

Relative humidity controlled evenly in total facility with high humidity, forest plant nursery will have vigorous growth.



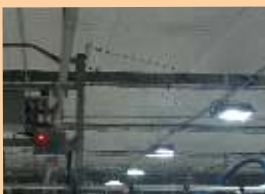
Temperature

It is regulated as per the need of plant species. Cooling is created by latest available imported cooling pad system with AL-A6M technology. We also provide the suitable heat convector to increase the temperature in the winter season. This system is well established and very reliable.



Lighting

Proper daily light integrals is very important factor for plants. In this facility appropriate light spectrum by photosynthesis lamps is provided to the plant so as to get optimum bio mass production in the plant. The light is 100% evenly distributed in the chamber so that each and every plant get illumination and a result the vegetative growth is very fast. Day length can be increase inside the greenhouse if required.



Control System

All the parameter i.e. Temperature, Humidity and Light are controlled by microprocessor control system. It controls and displays the parameters very accurately.



Power Backup

Two gensets of desired load (one in operation and one as standby) with auto on-off facility will be provided if desired.



Benching System

Our benching system is in consonance with the International standards with load bearing capacity of 3 tonnes with usable life span of 20 years. By using this benching system we can use 18-21% more area inside the mist chamber as compare to our conventional method. Benches are 100% hot galvanized so rusting will not take place otherwise rusted part of the benches are the favorable point to develop the fungus and other pathogen.

For details please refer Saveer catalogue Code No. 009512-00201



Root Trainer Block

Made up of high quality polymer with special design. Seedling of the desired species can be grown either through seed or clonal multiplication.

Please refer Saveer Root Trainer catalogue no. sb1090801, pages-15

Root Trainer Cleaning System: If the available irrigation water is saline, then water scaling (due to calcium and other chemical deposition) takes place in and out side of the root trainer. These scaling are the good source of fungus growth. Manual removal of this layer is very time & labor consuming and for second cycle the root trainer are not available in desired quantity. To meet out this requirement we normally recommend to stock 70% more root trainer then actual requirement.

By using this facility we can remove this scaling very fast so there will be no need to stock any extra root trainer and same root trainer can be used without any delay in the production cycle.



Misting

Misting is a technique for minimizing plant moisture loss by controlled periodic wetting of the foliage of cuttings which are being rooted. This technique is helpful for rooting leafy cuttings. The on-off interval for misting should keep all cuttings constantly wet. The propagation area is generally placed on a bench for convenience. It may, however, be placed directly on the ground in a nursery setting for example: misting reduces leaf transpiration in two ways: First, it causes a reduction in leaf temperature due to evaporative cooling as the water on the leaf evaporates. Second, it maintains high humidity conditions at the leaf surface.

The on-off interval for misting depends upon how quickly water dries from the leaves. Ideally, the mist should be turned on just after the leaves become dry and should remain on long enough to wet all leaf surfaces. Cuttings quickly die if they become dry and are exposed to bright sunlight for even a short period; therefore, it is important that the leaves be kept wet at all times when the sun is shining on them. Over-misting is generally considered less detrimental than over-watering.

Why we need Mistchamber

In open environmental conditions the survival % of the seedlings is approximately 60-65% which is very low, resulting in higher seedling cost.

1. Seedlings are more susceptible to pathogen, insect and pest attack hence the planting material does not score high on quality parameters.
2. In the open condition the cycle of seedling is very long hence large quantities of the seedlings cannot be produced from a unie area.
3. In open condition we can grow the seedling in particular season favourable for its growth.
4. For regeneration of the forest we need planting material in large quantity either through seed or clonal multiplication.

Main Advantages of Mist Chamber facility

- I. We regulate environmental parameter i.e. light, temperature and humidity for better and assured supply of the plant material throughout the year.
- II. Mortality rate is very low in controlled condition inside the mist chamber.
- III. With this new facility targets of regeneration of the forest area can be achieved within the schedule time as large number of the plant material can be supplied with this technology.

MIST CHAMBER – NURSERY PRODUCTION ESTIMATE FOR EACH CYCLE.

MIST CHAMBER – Estimate for number of plants produced in one cycle (40-60 days)

Number of Plants Producing Area	Number of Benches (Size : 9'x4'x2')	NUMBER OF PLANTS PRODUCED			
		Root Trainers Volume			
		100 CC	150 CC	250 CC	350 CC
100 m ²	20	34400	34400	9840	9840
500 m ²	100	172000	172000	49200	49200
1000 m ²	200	344000	344000	98400	98400

On receiving order from you, the following schedule will be followed

Mistchamber Size	Processing time for material	Transportation to the actual site	Installation Period
100 m ²	15 Days	As actual	42-45 Days
500 m ²	20 Days	As actual	60 Days
1000 m ²	30 Days	As actual	90 Days

*Please see details in our Root Trainers Catalogue no.: SBL08042011



Other Supporting Products



Net House

For the secondary hardening of seedlings we require a Net house. The structure will be made of galvanised G.I. pipes and covered by 70:30/50:50 agro shade net with misting unit and control.



Seed germination controlled facility

The facility also have a temperature and humidity control chamber to break the hard coat of the seed which does not break in normal condition and very difficult to germinate like teak etc. This facility is a very important for the places where propagation by the hard shelled seeds in the nursery is a practice.



Seed Storage

Seed Storage module maintain vigor and viability of seeds form harvest until planting. Our Seed Storage Module has well proven design and incorporates the very latest advances in state of the art programme technology with touch screen control panel for programming. Main features:

- i) Wide temperature and humidity ranges
- ii) Accurate and reproducible results
- iii) Choice of lighting systems
- iv) Cost effective solutions
- v) High frequency fluorescent lighting
- vi) Energy efficient



Auto Soil filling: This is an automatic mechanised system for soil filling in root trainer in desired quantity and the process is 10 time faster than manual soil filling.

Mechanized dibbler: It sows the seeds mechanically at a high speed in root trainer and at accurate depth. This will save a lot of time and work force besides higher germination percentage is achieved.



Fertigation and Irrigation System

By using this feature each and every plant will get 100% application of water/fertilizers uniformly as desired.

Irrigation: By using this applicator, only required quantity of water discharge from the system and the water is utilize in full by the plant.

Fertilization (Fertilizer dozing/ Micronutrients): Fertilizers can be applied through the applicator with an advantage that only calculated dose of fertilizer/ micronutrients are released from the nozzle, thus reducing the expenses to a great extent compared to the traditional application.

Insecticide / Fungicide application can also made through the auto applicator in the desired quantity, thus reducing the run off and wastage significantly.





Notes





More than 2000 projects installed.



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