Brassica Breeding Greenhouse BBG - T 710
A SAVEER PRODUCT

8200 Research Greenhouse Projects World Wide
The Brassicaceae or Cruciferae is an economically important family of flowering plants commonly known as the mustard family, the crucifers, or the cabbage family. The family is a rich source for food, medicine and ornamental plants. It includes many economically important edible and industrial oilseed, vegetable, condiment, and fodder crop species.

Cruciferous vegetables are one of the dominant food crops worldwide. They are high in vitamin C and soluble fiber and contain multiple nutrients and phytochemicals. Cauliflower, cabbage, garden cress, bok choy, broccoli, Brussels sprouts, turnip, rapeseed, mustard, radish, and similar green leafy Crucifers are raised for food production.

The importance of this family for food crops has led to its selective breeding. Moreover, several species have potential as new edible oil/protein crops, biodiesel fuel crops, or platforms for bioproducts or molecular farming. The Brassicaceae contain a number of compounds under preliminary research for their potential hepatoprotective and carcinogen properties. In spite of good production there is still vast scope for increasing production through adopting new innovative techniques and developing new varieties for the above explained reasons. Henceforth, there is a need to increase the sustainable Crucifers production.

Scientists research on various aspects of cruciferous vegetables in order to improve existing varieties, get new cultivars, standardise production techniques, enhance the plants gene pool, develop new tolerant plant varieties and varieties that have high quality and yield. Sometimes research gets interrupted by environmental disruptions, so it’s important to provide an uninterrupted and controlled environment for the research work. For such continuous studies research greenhouses are pre requisite to improve crop yield and the management systems.

Therefore, we have developed a greenhouse BBG - T 710 especially for crucifer vegetable crops that can easily be used for the breeding in different region of the world. It compliances with USA & EU standards. In BBG - T 710 Greenhouse you can grow about three crucifer vegetable crops per year for different experiments for breeding and other research programme. This specially designed greenhouse provides the desired conditions for the growth and development of the crucifer crops in controlled greenhouse environment and store the data efficiently with password security. The greenhouse growing conditions — including temperature, moisture levels and lights are controlled by Intelligent Climate Control System which can be accessed remotely for monitoring the conditions and even changing them, if desired.
Crucifer crops Breeding Greenhouse Provides Facilities to Study the "Complete Life Cycle of Crucifer crops"

AUTOMATIC CLIMATE CONTROL SYSTEM

- Temperature
- Humidity
- Air Circulation
- Light
- Water
- Fertigation

Special Emphasis on

- Intelligent Climate Control by Dedicated LHT Software for different stages of the crop.
- Remote access to monitor and change the set parameters
- Data Retrieval, Storage & Security with Secured Password
- Different Levels of Alarm System on Mobile Phone
BBG - T 710 with advanced FL technology is specially designed for cruciferous crop breeding and research in all the tropical, subtropical and temperate regions of the world. After rigorous experimentation and improvisation we have developed this world class BBG - T 710 Research Greenhouse at par with advance research greenhouses in USA and Europe. It is ideal for round the year crop growth in the different climatic regions. It is designed after taking into consideration all the parameters and by applying core scientific capabilities and technical insights to fulfil the requirements of research work.

It is ideal for round the year crop growth in different climatic regions. This research greenhouse is designed in such a way as to allow crop growth for research in controlled conditions successfully and also for planning experiments on different parameters for various research studies.

The scientists can research in this greenhouse that how planting times, fertilizer regimes and water amounts affect vegetable productivity. The varieties may be tested for plant population, spacing, fertilizer rates, days to maturity, harvesting intervals, pesticide tolerance, processing qualities, storage, heat tolerance, cold tolerance, irrigation practices, postharvest processing research, pest and disease resistance/tolerance, vegetable seed production and new varieties breeding for higheryields etc.

- Remote access to the plant growth and development by intelligent software from places having internet facilities.
- The greenhouse can be accessed for data with the help of a computerised system, smart phones, laptop and iPad, etc. without actually visiting the greenhouse.
- Different parameters can be monitored and even changed by the remote access.
- Online support from our online technical expert team available.
- If needed the team can access the researcher’s computer through screen sharing facility to provide solution to problems encountered.
**BBG - T 710**

With advance FL-Technology greenhouse you can study

**Temperature**

Desired temperature in the greenhouse is maintained by using e-vaporative cooling system and special heat convector system "Gerat System". The cooling is maintained by water pad system with special axial flow fans which brings down outside temperature up to 8 - 10°C ± 2°C in greenhouse at outside RH of 60% ± 8 per cent. The temperature is increased by specially tested heating system "Gerat System" which maintains uniform temperature across the greenhouse. The desired temperature is maintained for the day and night by intelligent climate control system which can also be accessed remotely to monitor the temperature inside the greenhouse.

**Humidity**

Our ultra-thin system achieves (by using clean water) upto 92% ± 4 % humidity. With hysteresis facility, it provides perfect RH inside BBG - T 710. The humidity required during the entire life cycle of Cruciferous crop for healthy plant growth can be maintained and changed according to the experiment requirement. Humidity can be controlled automatically by control panel provided with BBG-T 710 Advance FL Technology.
BBG - T 710 with Advanced FL Technology is equipped with advanced bio canopy system with appropriate spectrum - which provides light closer to Sunlight's spectrum. An equal amount of light can be provided to the whole canopy of plants at any level. The light supply according to the canopy and age of plants can also be calculated and the spectrum of light can be maintained and changed according to the canopy of the crop for any research requirement. Appropriate light spectrum can be provided at different stages for efficient growth and development of the plant.

Air Circulation

Our exclusive designed Greenhouse cooling system with German technology gives 100% even flow of air inside the Greenhouse with uniform temperature gradient across the greenhouse.
WATER, NUTRIENT AND PESTICIDE RESEARCH

The green house is equipped with Irri- N- Fit system which is a complete solution for the irrigation and fertigation as per experiment requirements. It provides:

- Required amount of water to the crop by setting the time and amount of water in the computerized system.
- Maintain desired water quality alkaline/ acidic/ sodic by setting the pH and EC automatically through computerized system.
- Moreover, Sensor based system would automatically calculate the required amount of water/trigger irrigation by calculating the soil moisture content.
- Provide required dose of pesticides

THERE ARE TWO SYSTEMS TO SUPPLY WATER TO VEGETABLE PLANTS

- Drip irrigation
- Ebb and flow

The right amount of water at the desired time with high water use efficiency is provided. To regulate the inputs as per the set parameter, control panel commands Irri- N- Fit system for providing the required irrigation and fertigation to the crop. The sensor based automatic irrigation controller (in control panel) releases the water at the desired time to the specially designed benches for ebb and flow system. The plants in the pots are irrigated from bottom by ebb and flow system or by drip to irrigate from top. The irrigation or water management can be designed as per the objectives of the research programme - breeding, IPM, drought and yield etc.
New Idea
If there is a space constraint in research institution or the field is far away, we have the technology to design and install the greenhouse on the rooftop of your buildings / Labs. This rooftop greenhouse is environmentally friendly and researchers can monitor the research work efficiently because the greenhouse is in the building itself. Energy, time and money can be saved because of the rooftop greenhouse. We can design and construct the greenhouse up to 10th floor level.

**ADVANTAGES**

- Time and money saving
- Easy and efficient monitoring
- Resistant to weather related disruptions
- Round the clock working
- Uninterrupted Power Supply
- Safe and Sustains the air pressure
- Find favour among modern youth, preferring hassle free working
- Easy storage of input materials
- Proper utilization of the rooftop
BBG - T 710

Brassica Breeding Greenhouse

**SIZE**

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<tbody>
<tr>
<td><strong>Length</strong></td>
<td>11.35 meter</td>
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<tr>
<td><strong>Width</strong></td>
<td>5.80 meter</td>
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<tr>
<td><strong>Side Height</strong></td>
<td>5.48 meter</td>
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<tr>
<td><strong>Central Height</strong></td>
<td>7.17 meter</td>
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*business@saveer.com*
Wherever you are in the world, we are sure you can grow crop successfully in this facility.

It is a global standard model with advance FL technology and can be raised in the field or on the roof.

Project completion time line - 26 days including civil foundation.

Accreditations:
- DSIR - SIRO Approved
- ISO 9001:2008
- ISO 14001:2004
- OHSAS 18001:2007
- CRISIL RATING - MSE 2
- D&B D-U-N-S No.: 91-637-7539