

Galileo



Galileo is a computerized agricultural control system, among the most advanced in its field, for climate control and irrigation in green houses and irrigation control of large open fields, farms, orchards, turf, public gardens and more.

Green house Climate Control

The system includes a large diversified and flexible software package that can be fitted to the use of almost any farmer without any special modifications.

Climate System Sensors

- **Internal Sensors** in the greenhouse includes: temperature, humidity, CO2 and more .
- **External Sensors** includes: wind velocity and direction, radiation, rain meter, external temperature and humidity and more.
- The normal temperature, humidity and radiation are carried out by a central program of requirements according to the day segmentation. The day (24 hours) can be divided into up to 8 segments each having required temperature, humidity and radiation. The control is carried out (according to the element setup) to maintain the required condition throughout the day. On the basis of the above sensors the system operates the greenhouse components.

Up to 4 greenhouses climate controlled systems can be setup each containing

Windows (Curtains) (up to 10 - including roof windows): Each of the windows can open up in 10 stages according to temperature, humidity, wind, rain, logic conditions and processes such as CO2 and spraying.

Fans (up to 4)

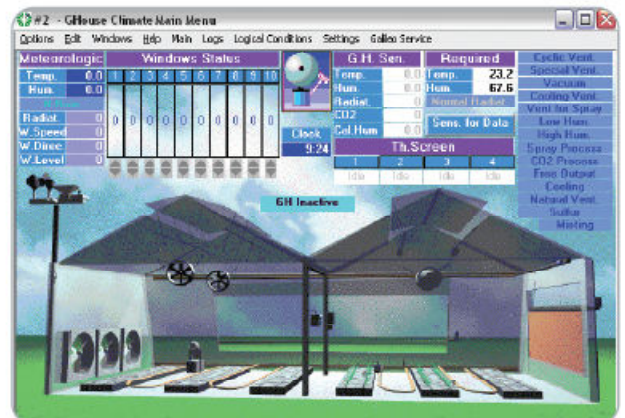
Refers to the fans installed on the side wall of the greenhouse and exhaust the air outside the green house letting fresh air into the green house from the opposite wall. Up to 4 groups of fans can be controlled per greenhouse. The fans can be programmed to work according to the conditions mentioned for the windows along with cyclic programs that can change the cycle automatically according to the temperature. The fans can be dependent on other process in the same way as the windows.

Thermal Screens (up to 4)

An element in the greenhouse that can be spread or rolled up according to the level of the radiation and/or the temperature. Up to 4 opening stages can be setup.

Cooling System (up to 4)

The cooling system is either wet pads or fogging systems. It can be operated according to the temperature, humidity or other conditions. The process of cooling includes in many cases operation of other elements such as fans in the case of cooling pads.



Heating System (up to 4)

The methods of heating the greenhouse are either hot water heating or air heating. The heating system is normally programmed to maintain a certain air temperature by starting and stopping the heating output. When greater accuracy is required or in more severe conditions a special program of "Circulating Heating" is available, allowing PID control of the water temperature, according to the air temperature and the heating conductivity data of the greenhouse. Heating can be dependant on humidity and other conditions.

CO2 Enrichment (up to 4)

A program controlling the operation of the CO2 valve. The process of CO2 may include some other elements such as windows, air circulating etc.

Spraying (up to 4)

This system usually includes a special device that emits pesticide spray in a certain location in the greenhouse. The process includes closing windows and operating the air circulating in order to ensure that the pesticide reaches all points of the greenhouse.

Air Circulating (up to 6)

Refers to fans installed inside the greenhouse that cause air circulation inside the greenhouse. The programs of these elements include cyclic operation according to temperature, humidity and processes such as spraying, CO2 and many others. This same element can be used also for lighting and others.