

# Gardening as Art

**Green walls are "the next big thing" in the world of gardening. Garden artists in Europe, Japan and other parts of the world have begun covering interior and exterior walls with artworks made of plants. The technological challenge: precise and continuous irrigation of a relatively small substrate. Galcon is leading the revolution with its Citygal system, a computerized irrigation control system based on cellular communication and the Internet.**

Green walls are the latest fashion in garden design and modern gardening. These are vertical gardens growing over walls and sloping roofs, creating living urban art and environmental sculpture from greenery.

**Not only is the Galcon Citygal irrigation control system powered by a battery, avoiding the need for an outside power source, it is also web-based so that irrigation can be controlled from any online computer**

In addition to being breathtaking and colorful works of art, the green walls contribute to increasing employee output and are of great ecological value.

The green walls offer an ecological advantage in three main parameters:

- They provide acoustic and thermal

insulation

- They serve as biological filters, absorbing toxins and contaminants and purifying the air
- Economical irrigation is achieved through the use of drought resistant plants and appropriate substrates.

The green walls method is innovative and advanced, representing the very latest in the world of gardening. This method has begun to spread in Israel, and is common in Europe.

Galcon is responsible for irrigation control in a number of green wall projects in England, and the Citygal system has already been installed in these projects. "Accurate irrigation of green walls is very critical", explains Sharon Ben-Bassat, Galcon sales manager for Asia Pacific and Africa, "because the substrate available to the plant is small, and irrigation has to be meticulous and precise so that the plant doesn't dry out. This is the reason that many companies choose Citygal. The system allows direct and accurate control of irrigation."

Galcon is currently introducing the Citygal system to the Japanese market as well. The system is

intended for the roof garden market - one of the most active gardening markets in the country. Roof gardening transforms private and commercial areas on the roofs of private homes, shopping malls and other commercial buildings into well tended gardens. This is a field that is gathering momentum, not only in Japan but throughout the world, and the Citygal system provides an ideal and economical answer to the needs of the roof garden.

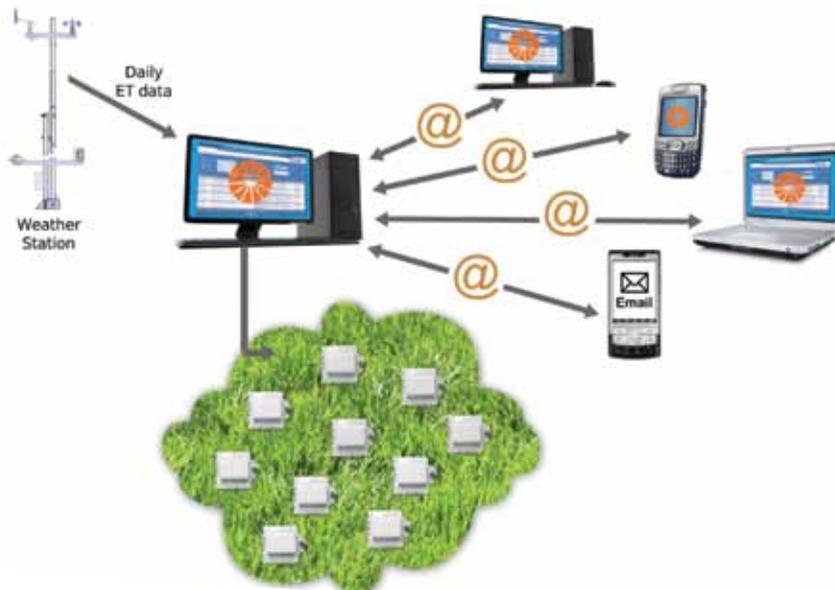
## The Citygal system, manufactured by Galcon:

Galcon has launched an innovative irrigation system, transforming water management in public gardens in Israel and around the world. The Citygal system, successfully installed in many projects in Israel and Europe,



is a battery-operated and web-based irrigation control system that can be managed from any computer, and does not require the installation of specific software.

This is a revolutionary system that avoids the need to set up an electrical infrastructure. Because the system operates on batteries, there is no need for a solar cell or other outside source of electricity, or for any additional exterior equipment or antenna. The Citygal system can be installed directly at the head of the irrigation system.



**A high-tech plant in the south of Israel that has installed a Citygal system covering an area of over 100,000 m<sup>2</sup> now enjoys a flourishing garden and an annual saving in water to the tune of \$50,000**

The plant is spread over an area of more than 100,000 m<sup>2</sup> of cultivated garden. 80 gate valves are installed in this area. Before the system was put into action, the gardener programmed the irrigation on a local basis, and was unable to change or measure the quantities or receive warnings of malfunctions.

After the system was introduced there was a 25% reduction in water consumption, resulting in a saving of more than \$50,000 a year for the company.

This is just one example of the significant savings that the Citygal system has helped achieve in hundreds of sites.

Another example: a few months ago a large local authority in the center of the country decided to make use of the system to control irrigation in its parks and gardens. The local council has 150,000 m<sup>2</sup> of gardens, and so far the system has been incorporated in a third of the area. 10 of the 150 system heads have been converted to central control. Before the upgrade, local controllers were used, without measurement of quantities.

The estimated water consumption was 1,100 m<sup>3</sup> per 1,000 m<sup>2</sup>.

After introducing the Citygal system, there was a drastic reduction in water consumption, to 500 m<sup>3</sup> per 1,000 m<sup>2</sup> (a 55% reduction), and a financial saving of \$60,000 a year (in the first stage). The anticipated financial saving for the entire project is \$175,000 a year.

## How does it work?

Controllers are positioned throughout the area, equipped with inbuilt cellular

communication and batteries.

These controllers communicate with a central server. Clients access the system with their own username and password, and can manage their water control units from their home.

**High-tech plants and local authorities throughout the country have already used the system to save hundreds of thousands of shekels, and it is in regular use in Europe as well. Have we found the next generation of irrigation control systems?**

"Using Citygal, municipalities and local councils can computerize their irrigation system at a reasonable cost, returning their investment within less than two years", says Sharon Ben-Bassat.

## Advantages of the Citygal system:

- The ability to regulate the quantity of irrigation in different areas - irrigation can be increased in one area while simultaneously being decreased in another, or stopped altogether in saturated areas



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- Control of pre-defined irrigation targets - an annual quantity, known in advance, can be allocated and the system can be programmed to follow the desired target
- Irrigation can be moved according to evaporation values - the system adapts itself to the needs of the plants, according to data measured at meteorological stations (irrigation is increased on very hot days, and the reverse)

- Real-time warning of malfunctions in the field - independent of the physical presence of people in the field
- The ability to make immediate changes to the irrigation routine remotely from any computer
- Resistant to vandalism and natural disasters - the system can be installed in a hole below the surface, together with the irrigation system. The system is resistant to corrosion and other damage
- Can be independently installed

and maintained - the system has been designed as a plug-and-play system that can be installed by the user and does not require professional installation. ■



[www.galcon.co.il](http://www.galcon.co.il)

## Galcon

**Year established:** 1982

**Owners:** Kibbutz Kfar Blum and the Whitewater Group owned by Ori Yogev, Hanna Gertler and Edwine B. Tisch

**Specialization:** Irrigation control systems intended for gardening and agriculture

**Number of employees:** 70-80

**Location of plant:** Kibbutz Kfar Blum

**General background:** The Company's products are marketed to over 40 countries around the world