

# iNTA

**TECHNOLOGY ESPECIALLY  
DEVELOPED FOR YOU**



**ALWAYS INNOVATING  
TO OFFER YOU THE  
BEST CROP SYSTEMS.**



## TECHNOLOGY THAT OPTIMISES YOUR CROP PROFITABILITY

### ▶ TECHNOLOGY THAT OPTIMISES YOUR CROP PROFITABILITY.

In such a competitive market, our crop systems will allow you to obtain high yields and high quality, significantly improving the profitability of your business.

### ▶ WE DEVELOP AND MANUFACTURE FERTIGATION AND CLIMATE CONTROL SYSTEMS, ESPECIALLY DESIGNED TO HELP YOU, THE CLIENT, TO IMPROVE THE PRODUCTIVITY AND QUALITY OF YOUR CROPS.

Our **Evo ALL IN ONE** system integrates fertigation and climate in the same device and together with the **SYSINTA** application, they have been designed to cover your present and future needs, based on specific control strategies for each crop. The result is an easy and intuitive control system at a highly competitive cost.

### ▶ PROJECTS AND INSTALLATIONS IN WHICH WE CARE FOR THE SMALLEST DETAILS.

Our wide experience is at your disposal to integrate with your devices. We offer you the best solution for your crops and needs. Turnkey projects for which we care for the smallest detail of your installation, so that everything works in line with your highest expectations.

### ▶ WE IMPLEMENT CUSTOMISED SOLUTIONS TO ADAPT OUR CROP SYSTEMS TO YOUR NEEDS.

Each crop needs a different approach depending on circumstances and our target is to adapt to the needs of each individual case. We propose customised technological solutions for your crops, which will allow you to optimise yields and the quality of your produce with a friendly and personalised service.

Hydroponics, Ornamentals, Seedlings, Citrus, Fruit Trees, Vineyards, also Golf Courses.



Within our wide range, choose the fertigation machine and devices that best adapt to your needs.

### CDN FERTIGATION MIXER

Essential in HYDROPONIC crops for its precise and reliable dosage.

We have designed a fertigation machine for the most demanding crops. Based on magnetic pumps with three-way valves and mixing tank, with the possibility of incorporating fertilizer flowmeters to allow you to measure the consumption and automatically adjust the dosage of each fertilizer tank.

### ALLMIX FERTILIZER MIXER

Equipment based on our original and exclusive design of the dosage system and incorporating our fertiliser flowmeters, we achieve the maximum level of control at a minimum cost.

### AUTOMATIC IRRIGATION CONTROL SYSTEMS FOR HYDROPONIC CROPS

Hydroponic crops require precise and frequent irrigation, adding both of these essential elements for a healthy growth of the plant we also have different automatic irrigation control methods where we can combine a **drain tray**, measuring the drained volume, monitoring weight, electric conductivity, pH, etc. We can also incorporate **substrate moisture sensors** that will measure electric conductivity and temperature. All of these different options can be adapted to meet your particular requirements.

### RECYCLING OF FERTILIZER SOLUTIONS

We offer different alternatives for reusing the irrigation solution in line with your needs. Mixing in the recycling basin, previous mixing in the fertigation machine or the fertilizer mixing tank. We can also mix water from different sources. Finally, we optimise the use of water and fertilizers, with an optimum control of the irrigation solution conditions.

The essential accompaniment for reusing irrigation water is **the disinfection system, by UV Radiation, Ozone** or a combination of both. We will always offer you the system that best adapts to your circumstances.

### SOIL MOISTURE PROBES

We monitor growth activity within the roots, the moisture and salinity at different levels, optimising the use of water and fertilisers, therefore reducing the cost and improving the yield and quality of the produce.

By integrating soil probes in our system, we achieve **Automatic Control of the irrigation** in accordance with the crop needs at any one time.

Using our INTA SOIL software, we can see the moisture level in graph format via the system browser, combined with **IRRIMAX** we can produce a more detailed monitoring system, which allows us to programme and record the irrigation strategies.

### WIRELESS CONTROL OF VALVES

The ideal, simple and economic option, resolving the control of remote valves, avoiding wiring installation problems. Also, for its high reliability and prompt action it improves any farms irrigation management.

It is a reliable and robust system, operating under the most adverse conditions that we can encounter on your farm, covering distances of up to 2500 m overcoming various obstacles and is compatible with any irrigation computer.



## GREENHOUSE CLIMATE CONTROL

Thanks to our vast experience of more than 30 years and the most advanced technology, we offer you an Environmental Control Computer adapted to your greenhouses to give you paramount control at a competitive cost. With the possibility to customise functions adapting to the climate conditions and circumstances of each site location.

Simple and modular installation, expandable depending on your needs, more economical and easier to maintain. There is the possibility of maintaining the system on-line and is always updated. Robust and reliable, affirmed with installations in more than 30 countries.

### HEATING

From a basic heating system to the most sophisticated, with four different networks, primary, secondary, growing area heating and under roof gutter. All these different possibilities can be adapted to your requirements.

**Boiler control** tailored to the instant and estimated demand from each greenhouse.

**Buffer tanks** when you need to produce CO<sub>2</sub> and you accumulate hot water, we control the water temperature in the tank via the energy demand function. We have a complete monitoring system that warns when there are off-range temperatures or boiler failures.

We also control the **hot water Transport Network** in accordance with the instant demand from each greenhouse and we regulate by demand and difference in pressure and temperature, with added security from our alarm system.

We have a special control function for using **Thermal Water with Heat Exchangers**. Monitoring of temperature and pressure in the entire circuit, input and output, measurement of the volume of thermal water used and calculation of the energy provided by the heating system, influencing on the control of boilers and storage tanks.

### FOG

- › We differentiate between one and eight time zones in one day in which we can vary the activation parameters, for low humidity or high temperature.
- › Control modality (mode selector) for %HR, Delta X, Delta T and Vapour Pressure Deficit (VPD).
- › Activation of air-water systems, controlling up to six sectors per greenhouse.
- › Regulation of dosage time and waiting time between dosage.
- › Use of fogging for treatments.

### VENTILATION

The most complete ventilation control system, particularly important in warm climates. We control two ridge ventilation openings e.g. (both sides) and four side ventilation openings via temperature, including

influences by solar radiation, outside temperature, outside humidity, wind speed and direction. We also have specific functions for protection against frost, high wind speeds and inside humidity. In addition, our secure alarm system includes electrical supply failure to the ventilation roof opening gearmotors.

### SCREENS

Control of thermal screen, shading and/or blackout, based on solar radiation, inside temperature, outside temperature and high humidity. Protection system for wind and rain and gradual opening in stages at dawn. Also covered by our secure alarm is any, however unlikely, operating failures.

### FANS

According to the greenhouse temperature and humidity, we can control up to four blocks of fans per greenhouse, including influence by CO<sub>2</sub> dosage and position of the roof ventilation openings. We can also adjust the maximum number of times for switching the fans on or off as well as for activating the fans in sequential mode.

### CO<sub>2</sub> CONTROL

We can adjust the optimum desired level in accordance with solar radiation, also minimum desired levels in accordance with the opening of roof ventilation and wind speed influence.

We can activate the boiler to generate CO<sub>2</sub> or work from the CO<sub>2</sub> tank directly and in the event of an alarm for high level of CO<sub>2</sub>, the dosage is stopped.

### COOLING PAD & FAN

Control of up to four FAN blocks per compartment, according to the greenhouse temperature and humidity. Independent control of the PAD pump, fixed minimum time for switching on and off including an alarm in the event of a power failure.

### LIGHTING

We control two different artificial lighting systems for each greenhouse with time activation mode operation relative to sunrise/sunset, including two time zones per day.

We have activation modes for the accumulation of light until the desired Klux is reached, also by daylight hours, to ensure that the plant receives the required hours of daylight at any one time. We can also produce an intermittent activation and the recording of time the lamps are registered as switched on, which allows us to establish when the lamps need replacing.

# iNTA SYSINTA



SYSINTA is the application which will allow you, the Client, to manage the fertigation and climate of your greenhouse in a simple and practical way. SYSINTA works with the main internet browsers, there is no installation requirement, just enable the browser of your choice, Chrome, Firefox or Safari, enter your user and password and start working from any computer or mobile device connected to the internet. In addition, you may choose between having the system installed on your farm or working from the Cloud with SYSINTA CLOUD. Our system is configurable according to your needs, from the most basic, to the most complex of installations, you pay for what you use.



## DIFFERENT ACCESS LEVELS PER USER TO PROGRAMMING

Certain users may only supervise the functioning, whilst others may change the operating parameters.

## MONITORING THE RISK AND CLIMATE PARAMETERS IN REAL TIME

You can see what is happening at any time, in both the current irrigation and in the climate parameters and control devices, ventilation, screens and heating etc.

## PROGRAMMING THE IRRIGATION AND CLIMATE PARAMETERS FROM ANYWHERE

From your office or anywhere with an internet connection, you can check and change the EC, the irrigation time, ventilation and temperature set points. In short, any of the installation's irrigation or climate parameters.

## MULTIPLE STANDARD, CUSTOMISED AND EXPORTABLE REPORTS

In addition to the multiple reports by default, we can plan customised reports, which you can receive daily by e-mail, or scheduled as you choose. Also, the reports are exportable to Excel, PDF or CSV.

## STANDARD AND CUSTOMISED CLIMATE AND IRRIGATION GRAPHS

Combining the parameters of the compartment that you wish to see, or manage the functioning of different devices. In addition, you can see graphs comparing different compartments.

## ALARM ALERTS IN YOUR E-MAIL OR TO YOUR MOBILE PHONE

The confidence of knowing that you will receive an alert by e-mail or SMS on your mobile phone should any incident occur in the system or during operation.

## REGISTER OF CHANGES IN PROGRAMMING

You have the possibility of **reviewing the modifications** made by other users, namely, monitor the traceability of possible errors or undesired changes in the programming. You can also **recover the desired values** in the event of an error.

## MULTI-PROGRAMMING

When multiple compartments are in use, we have a **multi-programming screen**, where you, the Client, can check and modify the settings of all the groups and compartments displayed on one screen.

## CUSTOMISING THE TEXTS

SYSINTA offers you the possibility of customising the text of each parameter.

## ON-LINE UPDATES

When you need to update functions or extend the capacity of your facilities, these improvements in the system are easily and quickly included within the on-line update.

**Always innovating to offer you, the Client, the ultimate solution adapted to your requirements.**



## PROJECTS AND INSTALLATIONS

INTA Crop Technology has extensive experience on a wide variety of crops allowing us to offer you the solution that best suits your requirements, through installations and turnkey projects. We consider every minute detail to insure the maximum stability and reliability in your system.

### TURNKEY PROJECTS OF GREENHOUSES FOR HYDROPONIC CROPS

In all their modalities, INTA will offer Advice and Guidance helping you the Client to select the correct method for your crop. Crops in substrate with recirculation of the nutrient solution or NFT Systems and all of its variants. The most innovative hydroponic systems to enhance produce quality and generate added value.

### INSTALLATIONS IN SEEDLINGS AND ORNAMENTAL NURSERIES

- › MOBILE BENCHES
- › SEEDLING/ IRRIGATION TROLLEYS
- › COOLING/PAD & FAN
- › CLIMATE CONTROL
- › ARTIFICIAL LIGHTING
- › WATER STORAGE TANKS

### FERTIGATION IN CITRUS AND FRUIT TREES

- › FERTILIZER DOSAGE PROPORTIONAL TO FLOW
- › SOIL PROBES TO CONTROL IRRIGATION
- › WIRELESS CONTROL OF VALVES
- › AGRO-CLIMATIC WEATHER STATIONS

### FERTIGATION FOR GOLF COURSES

- › CDN CAF-GOLF
- › PH CONTROL AND FERTIGATION
- › PUMPING STATIONS

### PLUG & PLAY IRRIGATION HEAD CENTER

A be-spoke design, incorporating all of the necessary elements to guarantee the maximum stability and reliability for your growing system, installed skilfully by our trained and experienced technicians.



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