



vertical farm systems
growing for the future

XA2 Yield Test Unit



The XA2 Yield Test Unit is a computer controlled vertical farming system designed for teaching & training, laboratory research as well as for testing seed, nutrient and growing cycle regimes for commercial replication in larger XA Series Warehouse systems.

The XA2 Yield Test Unit is a small semi-automatic system with two independent grow benches - each of 1m² (10ft²) area. The XA2 provides a 'soft' introduction to operation of larger XA Series warehouse systems, and more importantly allows operators to source local seed varieties and test the varieties they wish to grow in larger XA facilities.

Results from the XA2 help to identify yield kgs/m² (lbs/ft²) of the seed varieties available locally and also provide small quantities of produce to confirm market demand, price and shelf life.

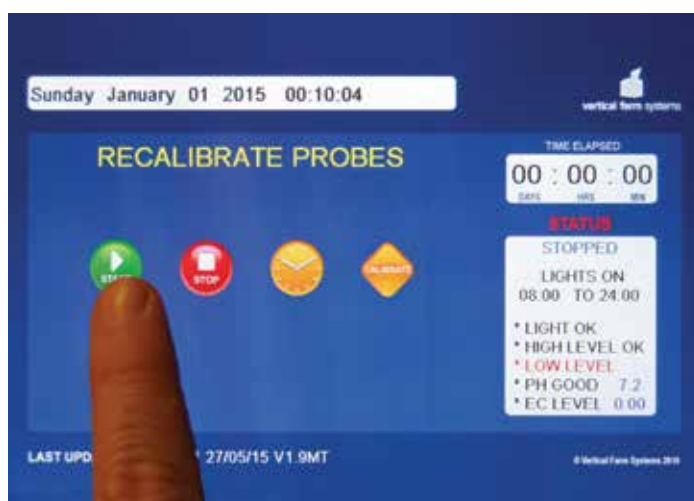
The XA2 is a vital component of any plant growing facility for testing new plant seed varieties that are constantly replacing current varieties, and also to test produce acceptance against evolving market demand and palate preferences.

FEATURES

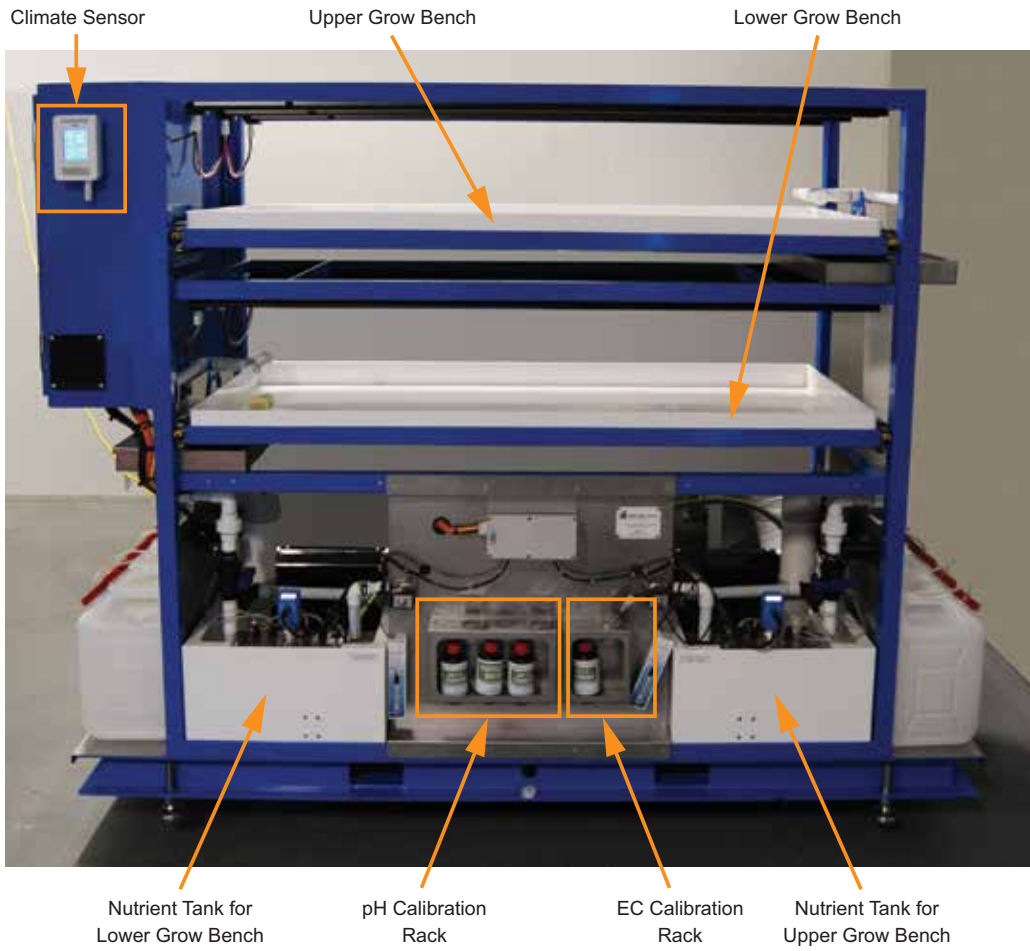
- 2 separate growing areas with individual touchscreen computer control.
- Modular LED low voltage lighting (typically 280 $\mu\text{Mol/m}^2/\text{s}$).
- Food Grade plastic growing benches – each 1m² (~10ft²) area – on rolling mounts for easy access.
- Automated Flood & Drain watering system for each grow bench, suited to a wide range of growing media.
- Integrated water chillers for each growing bench to control root zone temperature.
- Step by Step 60 page Operators Manual.
- Full 12 Month warranty.

TOUCHSCREEN CONTROL

- pH acidity setting for automatic dosing.
- EC nutrient level for automatic dosing.
- Automated sensor calibration reminders.
- Watering – flood duration & interval.
- Germination – duration of dark period.
- LED Photoperiod duration.
- LED Photoperiod start-time.



XA2 Front View



XA2 Back View



XA2 EQUIPMENT & CONSUMABLES

General Equipment:

- 1 x Plastic Seeding Template
- 2 x 10 litre Container marked "Nutrient A"
- 2 x 10 litre Container marked "Nutrient B"
- 2 x 10 litre Container marked "pH Down"
- 2 x 10 litre Container marked "pH Up"
- 1 x Nutrient Tank Cleaning Sponge
- 1 x 12mm x 15m Water Supply Hose
- 1 x 12mm x 15m Water Drain Hose
- 1 x Plastic Clay Pebble Scoop & Brush
- 4 x 60 ml Measuring Cups
- 2 x Blue Light Hazard Safety Glasses
- 1 x Rotary Sieve XY-RS01
- 1 x Plastic Pebble Levelling Tool
- 3 x 54 Litre Plastic Bins
- 1 x 7 litre Pressure Sprayer

Consumables:

- 4 x 50 Litre Sacks Clay Pebbles
- 1 x 1 Litre pH 4.0 Buffer
- 1 x 1 Litre pH 7.0 Buffer
- 1 x 1 Litre 1.4 Conductivity Standard

Spare Parts

- 1 x LED Module
- 1 x LED Driver Board
- 1 x pH Sensor
- 1 x 10" Charcoal Filter Cartridge – 2 micron
- 1 x Recirculation Pump

SPECIFICATIONS

Power Supply	750W 110–240V 50/60 Hz AC
Water Supply	Potable. Pressure 400–1000 kpa
Ambient Temperature	6–39°C
Relative Humidity	Up to 95% non-condensing
Overall Dimensions	165cm (H) x 210cm (L) x 72cm (W)
Dry Weight	<500 kgs

OPTIONAL ALARM SYSTEM

The GSM Alarm system automatically sends pre-programmed text messages to nominated cell phone numbers in the unlikely event that either water, power or pH levels have problems. The GSM Alarm system requires a SIM card with text messaging account.

OPTIONAL CLIMATE SENSOR

The Climate Sensor has a colour LCD display screen that shows current temperature, humidity and CO² levels of the growing area.

INSTALLATION REQUIREMENTS

- A level floor area of at least 3m x 2.4m (9' x 8') and 2.4m (8') ceiling height.
- Access to potable water with a 12mm(1/2") hose (supplied) that will remain connected.
- Access to a drain where a 12mm (1/2") hose (supplied) can be run at the end of each crop to pump out the nutrient tanks.
- The floor area needs to be able to cope with any accidental water spillage, dropped grow medium, plant matter etc.
- Inside the room the temperature needs to be a stable 25–27°C (75–80°F) – usually a domestic split cycle air conditioner is sufficient.
- The humidity inside the room needs to be ~65% (usually a domestic type 25L/day dehumidifier is sufficient).
- Power outlet for the XA2 machine which draws a maximum of 750W.
- Availability of a wet-waste bin is required for residual root and plant matter disposal.

SHIPPING

On request door-to door shipping and insurance can be arranged and quoted. Any applicable import duties, taxes or tariffs are the responsibility of the customer.

PRICING

XA2 Units	US\$38,000
Alarm system	US\$480 (optional)
Climate Sensor	US\$250 (optional)



For information about
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