



Agricultural Water Systems

Clean water for farming, generated on site from the air

THE OPPORTUNITY

Farming depends on water that is becoming harder to trust and harder to secure. Groundwater in many growing regions is increasingly polluted with agricultural runoff, PFAS and industrial contaminants, and aquifers and irrigation infrastructure are under growing strain. Green Technology Global (GTG) removes that dependency by generating clean, fresh water directly at the farm from atmospheric humidity, a continuously renewing source estimated at roughly 12 quadrillion liters at any given time.

THE TECHNOLOGY

GTG Atmospheric Water Generators (AWGs) draw in ambient air, condense its humidity through a closed refrigeration cycle, and purify the result through a 7-stage treatment train: HEPA air intake and pre-filtration, refrigerated condensation, sediment filtration, carbon block filtration, mineralization, UV sterilization, and a final polish stage. The output meets or exceeds WHO drinking water standards, is chemical-free, and starts cleaner than groundwater because it begins as vapor. For agriculture, individual units combine into a **Water Farm Substation** sized to the operation, from a single greenhouse to a multi-acre controlled-growth facility.

AGRICULTURAL PRODUCT LINE

Model	Output / day	Power (460V 3Ø)	Weight	Agricultural fit
500L	132 gal / 500 L	6.3 kW	1,786 lb	Pilot programs, small farms and greenhouses
1,000L	264 gal / 1,000 L	12.3 kW	2,359 lb	Mid-size hydroponic operations
2,000L	528 gal / 2,000 L	24.6 kW	4,475 lb	Commercial greenhouses, light agricultural
5,000L	1,320 gal / 5,000 L	64 kW	8,598 lb	Livestock operations, larger growing facilities
10,000L	2,641 gal / 10,000 L	128 kW	18,078 lb	Large-scale controlled-growth agriculture
Substation	Thousands of gal	Engineered	Array	Clustered units scaled to acreage and herd size

Ratings at 86°F / 80% RH. Output varies with temperature and humidity; GTG provides site-specific production estimates. Compact 100L and 250L units are available on request for pilots.

KEY BENEFITS FOR GROWERS

- **Independence from the aquifer.** Water is produced on site from the air, with no new wells, pipelines or permits for new draws, and no exposure to drought curtailment.
- **Clean water from the start.** Atmospheric water is free of the runoff, PFAS and industrial contaminants found in many groundwater sources, validated by an independent water-purity testing report.
- **Scales with the operation.** Start with a single pilot unit and add capacity as acreage, crops or herd size grow. Units cluster into substations producing thousands of gallons daily.
- **Healthier crops and livestock.** Consistent, contaminant-free water for irrigation, hydroponic nutrient solutions and animal drinking water.
- **Lower environmental footprint.** No groundwater depletion, no chemical treatment, and reduced burden on regional irrigation infrastructure.
- **Off-grid ready.** Pairs with GTG's FLUX primary power systems for complete water-and-power independence at remote farms.

SCALING A WATER FARM SUBSTATION

Substations are built from clustered 10,000L units. The figures below are rated output and power at standard conditions; GTG sizes each deployment to local climate and the operation's daily demand.

Configuration	Rated output / day	Connected power	Typical scale
1 × 10,000L	2,641 gal	128 kW	Single large greenhouse or livestock barn
5 × 10,000L	13,205 gal	640 kW	Multi-greenhouse operation
10 × 10,000L	26,410 gal	1.28 MW	Commercial controlled-growth facility
40 × 10,000L	105,640 gal	5.12 MW	Regional agricultural substation

TARGET APPLICATIONS

Hydroponic and vertical farms • Commercial greenhouses and controlled-environment growing • Dairy, cattle, poultry and swine operations • Fodder production • Farms in contaminated-groundwater or drought-exposed regions • Remote and off-grid agricultural sites

GREENFIELD HYDROPONICS PARTNERSHIP

GTG's sister company, Greenfield Hydroponics, uses GTG's water supply to enable local production of organic, fresh produce, free of pollutants, pharmaceuticals, PFAS plastics and other contaminants that threaten human and animal food supplies. Its hydroponic systems use 90% less water than conventional growing, which makes atmospheric water a practical primary source. Learn more at www.GreenfieldHydroponics.com.

VALIDATION & RESOURCES

- **Water Purity Independent Testing Report.** Lab results confirming GTG's atmospheric water meets or exceeds WHO drinking water standards.
- **Feasibility Study.** Evaluates cost, output and site requirements before purchase.
- **Product Data Sheets.** One-page specifications for every capacity from 100L to 10,000L.

All available at www.GreenTechnologyGlobal.com/resources.html

WHY GTG

GTG is in the solutions business, not the box-selling business. Each engagement moves from project intake to feasibility screen, technical review and a commercial next step, supported by a feasibility study and independent purity data before purchase, and by GTG engineering and project management after installation.

Next step: Share your location, acreage or herd size, daily water demand, available power and target date for a sizing estimate.

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