

AVAILABLE FOR **FIVE MAJOR CROPS**

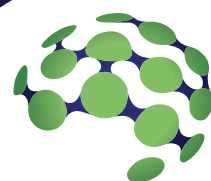


AUTONOMOUS **CLIMATE** & **IRRIGATION** CONTROL — WITH CROP CONTROLLER — OPTIMIZE & REALIZE YOUR UNIQUE CROP STRATEGY WITH AI



ONE INTEGRATED AI SOLUTION TO **SOLVE MULTIPLE** GREENHOUSE **CHALLENGES**

- Be more profitable & sustainable → Reduce water usage by 10% and energy usage by 15% on average.
- Labor and workload constraints → Reduce mistakes and manual work so the same team can manage more acreage.
- Inconsistent execution of crop strategy → Your unique crop strategy is executed precisely and consistently, 24/7.
- Constant fine-tuning → Adjust settings only a few times per month instead of multiple times a day.
- Increasing multi-site complexity → Maintaining consistent oversight across multiple greenhouses.
- Unpredictable production → Increase yield and make production more predictable.
- Disease pressure (e.g. botrytis & mildew) → More stable and balanced control reduces fungal diseases.



blue
radix

AUTONOMOUS CLIMATE & IRRIGATION CONTROL

Crop Controller delivers autonomous climate and irrigation control, operating 24/7 with precision and efficiency. As one integrated AI solution, it enables full decision automation to address multiple greenhouse challenges at once, moving far beyond monitoring and reporting tools. Proven worldwide, it enhances and simplifies daily greenhouse management.

Crop Controller uses the grower's unique crop strategy and goals as a starting point, analysing greenhouse data, sensory data and local weather forecasts to optimally steer the greenhouse climate and irrigation installations autonomously via the climate computer. Manual settings only need to be adjusted a few times per month, instead of frequently throughout the day. This empowers growers and greenhouse owners to achieve optimal growing results while enabling scalable, profitable operations.

AI WITH HUMAN EXPERTISE AND SUPPORT

Our service Crop Controller is supported by Autonomous Greenhouse Managers with crop expertise who guide you towards autonomous growing and continuously monitor performance, forecasts, and results with frequent alignment.



WHAT DOES CROP CONTROLLER CONTAIN?



CLIMATE CONTROL

- ✓ Radiation & lights
- ✓ Temperature
- ✓ Humidity
- ✓ Setpoints for heating, ventilation & screens

IRRIGATION CONTROL

- ✓ Water uptake, drain, EC & dry-out
- ✓ Slab scale monitoring
- ✓ Setpoints for irrigation supply & shot size
- ⚙ Slab scale and drain sensor required

STRATEGY OPTIMIZATION

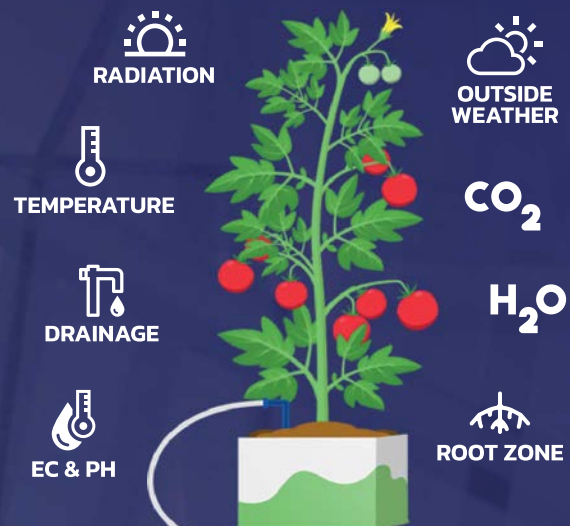
- ✓ Cultivation planning
- ✓ Crop registration
- ✓ Plant energy balance
- ✓ Production forecast

SUPPORT & INSIGHTS

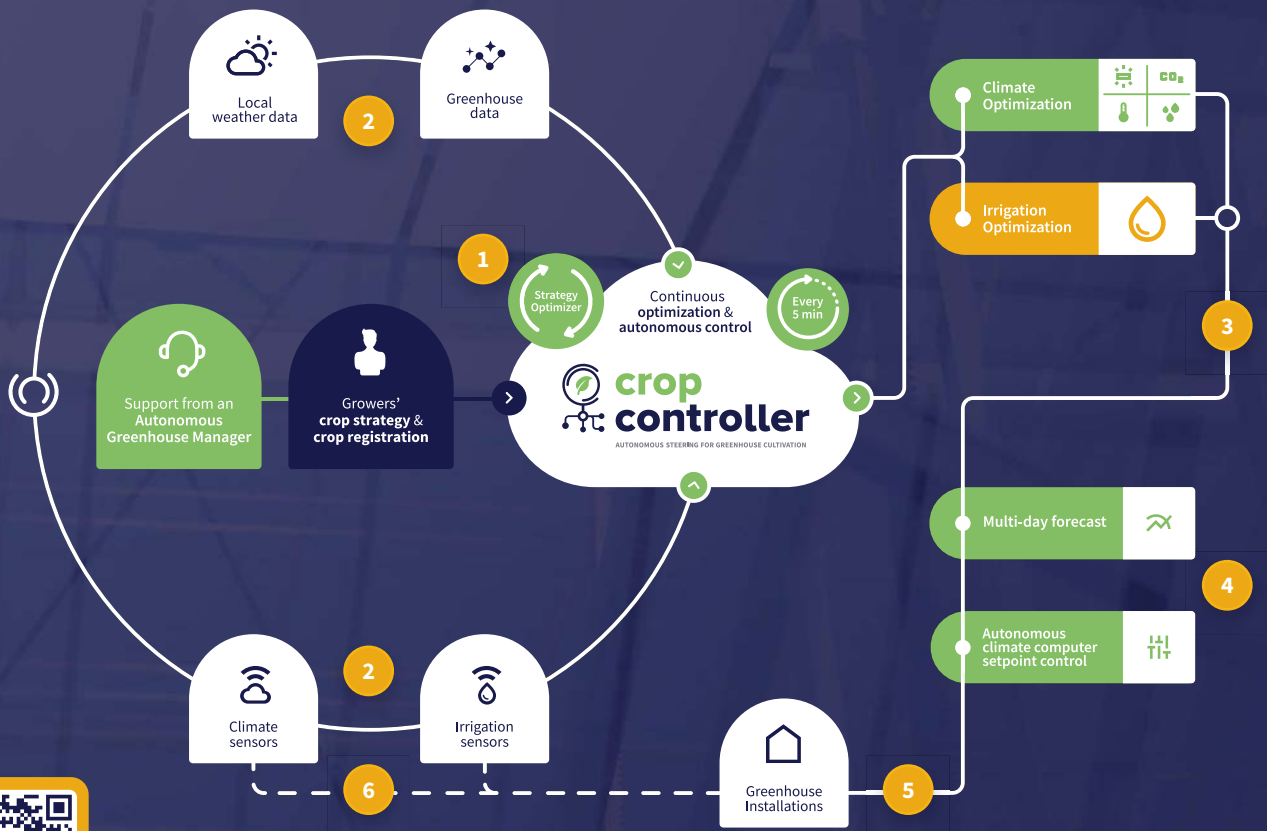
- ✓ Continuous monitoring
- ✓ Support calls
- ✓ Value reports
- ✓ 24/7 Chat support
- ✓ Knowledge Hub
- ✓ Multi-location dashboards

OPTIMAL PLANT CONDITIONS

Crop Controller works tirelessly alongside the grower 24/7. It provides multi-day forecasts to anticipate changing weather or greenhouse conditions. AI technology ensures full decision execution of precisely calculated setpoints for heating, ventilation, screens, irrigation supply, and shot size, updated every five minutes. Achieving optimal temperature, radiation and humidity levels for the plants and ensuring the perfect water content level, drainage, EC and PH-levels, for the complete duration of the crop cycle.



HOW CROP CONTROLLER WORKS



Scan to watch our explainer animation

- 1 OPTIMIZING YOUR UNIQUE CROP STRATEGY**

Your unique crop strategy is the starting point. **Strategy Optimizer**, within Crop Controller, enables you to create an improved data-driven crop and scenario planning for the whole cultivation and track crop development.
- 2 DATA PROCESSING WITH AI**

During the entire crop cycle, AI continuously uses all available data from greenhouse sensors, climate boxes and meteo-data providers to forecast and optimize the climate and irrigation fully aligned with the grower's crop strategy.
- 3 CALCULATING SETPOINTS**

Crop Controller takes care of the execution by calculating climate and irrigation profiles every hour, for 3 days ahead. Ensuring optimal temperature, radiation and humidity while realizing perfect water content levels, drainage, EC and PH-levels, for the full crop cycle.
- 4 AUTONOMOUS CLIMATE COMPUTER CONTROL**

Accordingly, it calculates setpoints on a 5-minute level. The calculated setpoints are sent to the climate computer without human interference. Of course, all climate computer safe guards remain in place.
- 5 AUTONOMOUS STEERING OF INSTALLATIONS**

Crop Controller autonomously steers the climate and irrigation installations via the climate computer to reach the targets defined by the grower.
- 6 OPTIMIZE AND EXECUTE LOOP**

Connected sensors and slab scales are measuring climate and irrigation conditions and are input for the continuous, autonomous 'optimize-and-execute loop' to achieve and maintain optimal conditions for the plant in the most cost-efficient way.

DATA & INTEGRATIONS

Blue Radix works closely together with partners in your greenhouse ecosystem. Crop Controller runs in glass and plastic greenhouses with main-brand climate computers, slab scales and irrigation sensors for vegetable crops and strawberries. Together we ensure your data is secure and is solely being used for your benefit alone.

PROVEN RESULTS OF AUTONOMOUS CLIMATE & IRRIGATION CONTROL

A WIN-WIN FOR **TEAM** AND **COMPANY!**

BENEFITS FOR GROWERS

- ✓ **Stay in control of climate and irrigation 24/7** without constant checks or manual adjustments. Your own crop strategy is executed autonomously, preventing surprises from changing weather conditions.
- ✓ **Fewer human mistakes, especially in irrigation**, through precise, automated control that adapts to changing conditions, even when no grower is on site.
- ✓ **Adjust settings only twice per month and spend more time with your crop.** Consistent conditions in each compartment without continuous fine tuning of climate computer setpoints and influences. No need to rely on human memory for crops and seasons.
- ✓ **Improve yield forecasts with minimal effort.** With autonomous climate & irrigation control, predictability of cultivation increases by reducing inconsistency and wrong decisions.
- ✓ **Peace of mind** while reaching your targets knowing your crop is in good hands, with personal support to help monitor your greenhouse data and results.

BENEFITS FOR GREENHOUSE OWNERS

- ✓ **Increase profit per m²** by reducing energy, water, and fertilizer use, with average savings of 15% on gas and 10% on water and fertilizer, supported by clear value reports.
- ✓ **Manage more greenhouse acreage with the same team**, Crop Controller supports 24/7 for better results without increasing headcount.
- ✓ **Operational resilience**, is ensured, enabling consistent greenhouse operations at all times across all hectares, even when you are short staffed or training new growers.
- ✓ **One portal for multi-site performance**, allowing you to monitor KPIs across multiple greenhouses and locations with clear, management-level insights.
- ✓ **Less disease pressure** by stabilizing crop quality and significantly reducing fungal diseases such as mildew and botrytis.
- ✓ **Shorter learning curve, secured crop knowledge**, helping junior growers reach a professional level within months, while retaining crop expertise within the company. Even when growers change or might leave.

READ OUR CUSTOMER SUCCESS STORIES

Join autonomous growers worldwide. Discover real grower stories on our website from every climate zone, showing how Crop Controller improves yield, reduces risks, and simplifies daily greenhouse operations.

New stories and practical experiences are added regularly.



Scan and read more customer stories

ABOUT BLUE RADIX

Blue Radix is the independent specialist and market leader in autonomous greenhouse control. We create AI solutions for almost all daily decisions and actions in greenhouses to solve the scarcity of experienced growers and to feed the growing world population in a sustainable way. With Autonomous Climate and Irrigation Control by Crop Controller, growers optimize and realize their unique crop strategy with AI, while solving multiple greenhouse challenges at once.

MORE INFORMATION

www.blue-radix.com
info@blue-radix.com