

GREEN : V

# Leafy Green System

*A fully customized and automated hydroponic growing system for your leafy greens*

*40% yield increase per m<sup>2</sup>*

*Up to 100% automation*

*95% reduction in water usage*

*Minimal disease pressure*



*Looking for a cultivation system that can increase your yield by 40% per square meter? Want to minimize disease pressure, and use less water, fertilizer and energy?*

With the GreenV Leafy Green System, you can enjoy a fully customized and automated hydroponic growing system that allows you to grow leafy greens sustainably and profitably.

## How it works

The GreenV Leafy Green System is a mobile gutter system for the automated cultivation of lettuce and other leafy crops. Young plants are planted with no spacing between the gutters, resulting in a high number of plants per m<sup>2</sup>. As the crop grows, the GreenV Leafy Green System automatically increases the

space between the gutters to provide the crop with enough light, air and space to grow steadily and maintain high product quality. The gutters move automatically through the greenhouse, reducing the amount of manual intervention required. You can grow more, more efficiently, and with less labour.

## Advantages of our unique and patented aluminum gutters

- The robust aluminum gutters are easy to handle and stretch over the full width of your bays. The stiff aluminum gutters don't bend or sag and slide over a special low friction material, eliminating any hiccups in the automation process.
- The aluminum gutters act as a radiator, creating a microclimate around the plant instead of throughout the whole greenhouse. The result: energy savings in terms of cooling in summer and heating in winter.
- Pathogens and antigens grow relatively easily on a standard plastic surface, but our aluminum gutters significantly reduce disease pressure. The aluminum gutters block all light near the water, preventing algae growth. In addition, the holes in the gutters are exactly the same size as the root plugs, enabling maximum yields.
- The aluminum gutters are more durable because they don't deteriorate in sunlight, don't bend (by overheating) and don't crack or break on impact which all leads to a significant longer lifetime of the gutters, reducing operational costs.

## Our solution minimizes disease pressure

The second innovative element is the irrigation system. The growth of pathogens is significantly inhibited by the unique filter system. This effect is enhanced by the use of the aluminum gutters. Fewer pathogens means fewer root diseases.

Our solution bypasses the need for double tubes per plant to resolve blockages in the piping channels. The drippers in the GreenV

Leafy Green System do not become clogged, thanks to the 5000 litres of water per hour circulating through the 6mm (1/4") pipes.

Thirdly, the system is specially designed for hydroponic lettuce cultivation where about 99% of the water is circulated. You can count on your irrigation water being disinfected continuously.

## Five benefits of the GreenV Leafy Green System

### 1. Reduce your labor input

The higher the degree of automation, the less human handling is required in your cultivation process. You retain complete control over the amount of labor you want to reduce: you can choose to start with a semi-automated system or a fully automated system.

### 2. 95% water reduction

The amount of water needed to grow lettuce or herbs with the hydroponic gutter system is reduced by as much as 95% compared to growing in soil. The system is completely closed, ensuring the plants absorb only the water required. The rest is recycled, which also conserves a lot of nutrients. We know from experience that various types of leafy crop grow exceptionally well in this system.

### 3. Increase your yield by 40% per m<sup>2</sup>

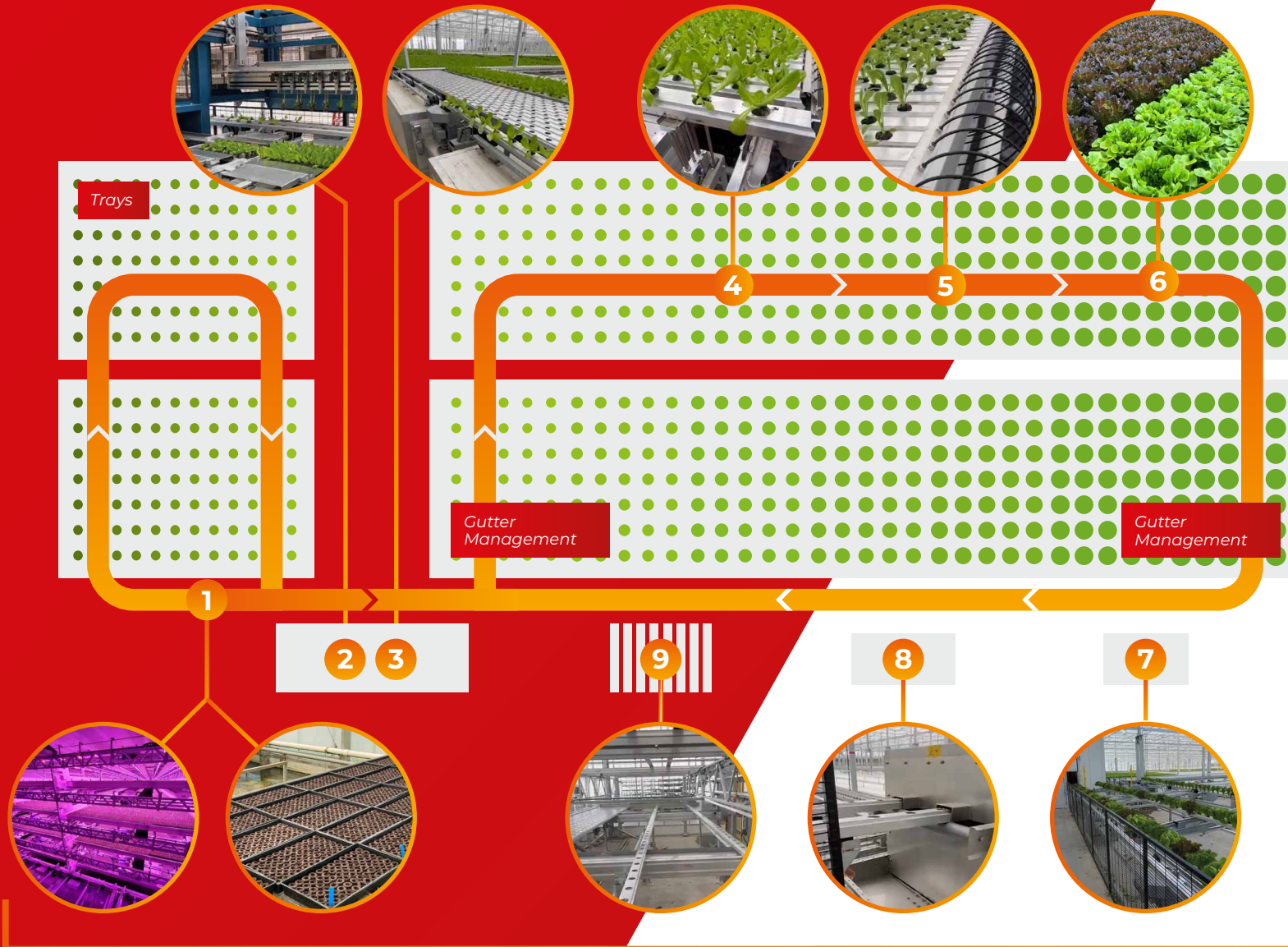
Increased planting density in the first phase of cultivation makes optimum use of the available space. The cultivation surface is automatically extended, allowing 40% more plants to be grown per m<sup>2</sup> compared to other systems.

### 4. Achieve the lowest possible disease pressure

The ingenious irrigation system, in combination with the aluminum gutters, means minimal disease pressure.

### 5. Greenhouse-grown lettuce ideal for retail

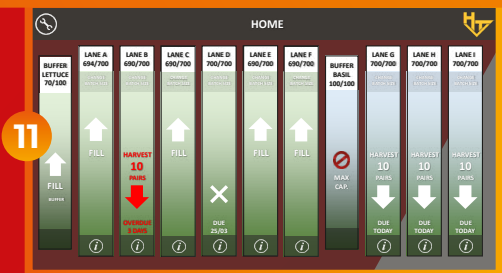
Growing with the GreenV Leafy Green System guarantees clean lettuce and herbs. The closed cultivation system minimizes the use of plant protection products, and the crop is packed free of soil.



### Legend

- 1 Propagation/germination area (in trays)
- 2 Automated transplanting (tray to gutter)
- 3 Buffer/transport line (gutter)
- 4 Flexible growing line
- 5 Irrigation system
- 6 Flexible growing line
- 7 Harvesting positions
- 8 Gutter washer
- 9 Gutter buffer
- 10 High flow water irrigation system
- 11 In house designed PLC software with customized human interface screens

You are in complete control of the desired level of automation. In a fully automatic system, every step in the growing process is taken care of. Together, we can develop a customized growing plan fully tailored to your needs.



## A system to suit all your needs

Depending on your desired production level, degree of automation, available space and cultivation area, we work with you to determine the ideal specifications of your GreenV Leafy Green System.

- 1 Choose our semi-automated system to optimize your yields and minimize capital expenditure
- 2 To save as much labor as possible, maximise your land use, and achieve an evenly growing crop, opt for our fully automated system
- 3 Want to do your own propagation in a fully controlled environment and give your plants the best possible start? Our system can be perfectly combined with a multilayer indoor growing cell to form the optimal hybrid setup.

## About GreenV & the GreenV Leafy Green System

Building a thriving business requires the right partnerships. GreenV consists of a group of individual companies that work seamlessly together, each delivering the best technology, products and services in their category. The GreenV Leafy Green System is a joint initiative by Prins Group, Prins USA, HT Verboom and Stolze.

# GREEN V

Building Thriving Businesses



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