
Development of advanced
cultivation system for lettuce
Naretrends Inc.

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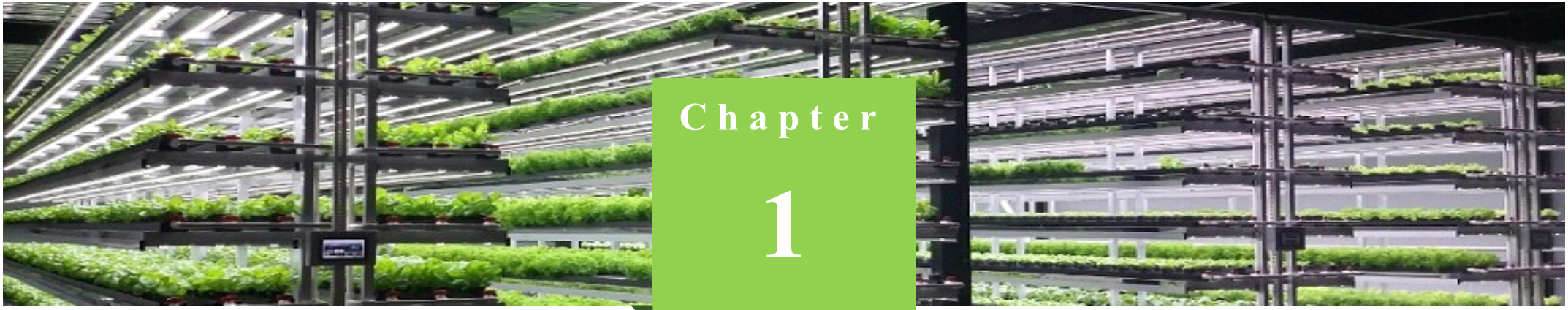


Chapter

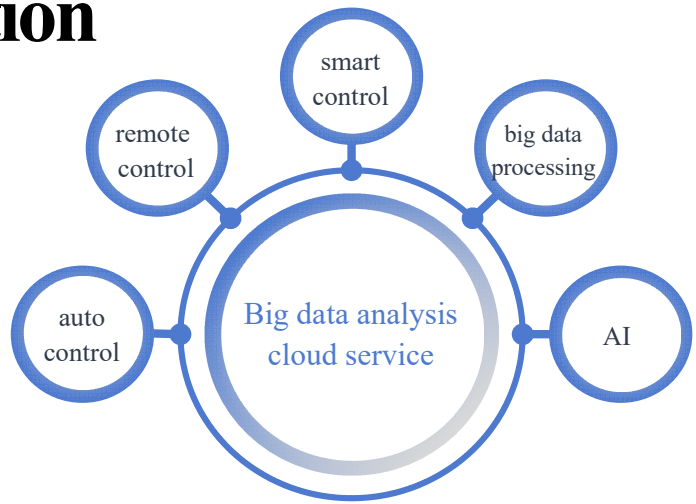
1

Introduction

Naretrends Inc.

We are developing various solutions through AI predictive analytics to assist farmers in determining and making decisions on which crops to produce. These solutions also offer short-term predictions to suggest increased revenue opportunities, optimal shipping locations, and timing for the farms.

Naretrends Inc. develops and provides ICT convergence and complex agricultural systems by utilizing big data such as automatic control, remote control, and smart control as scientific agriculture that combines artificial intelligence and the Internet of Things in line with the 4th industrial revolution.



(주)나래트랜드 | NARE TRENDS INC

Company
Naretrends Inc.

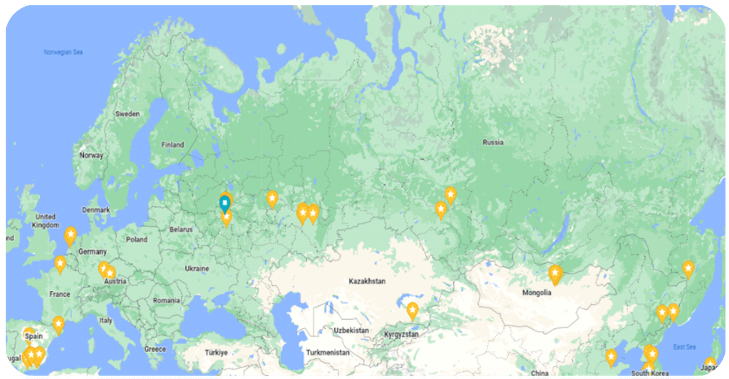
CEO
Choi Seungwook

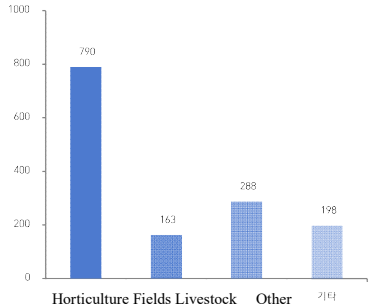
Incorporation
2013. 08. 01

Address
Gyeonggi-do, Bucheon-si, Buheung-ro 303beon-gil 36, of.507

Status of domestic systems

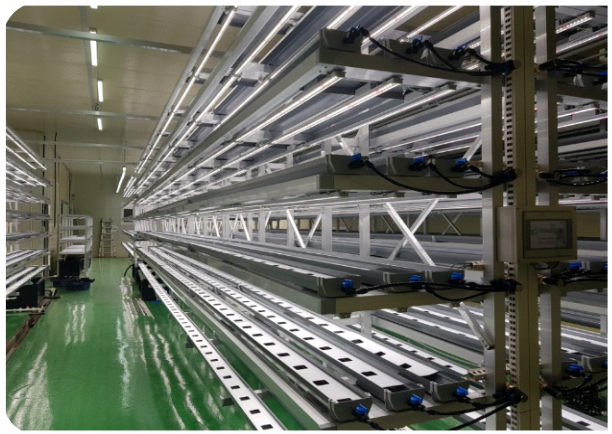
Farms Implementing Smart Farming solutions				
Horticulture (greenhouse)	Open field cultivation	Livestock farms	Others	Total
790	163	288	198	1,439 farms

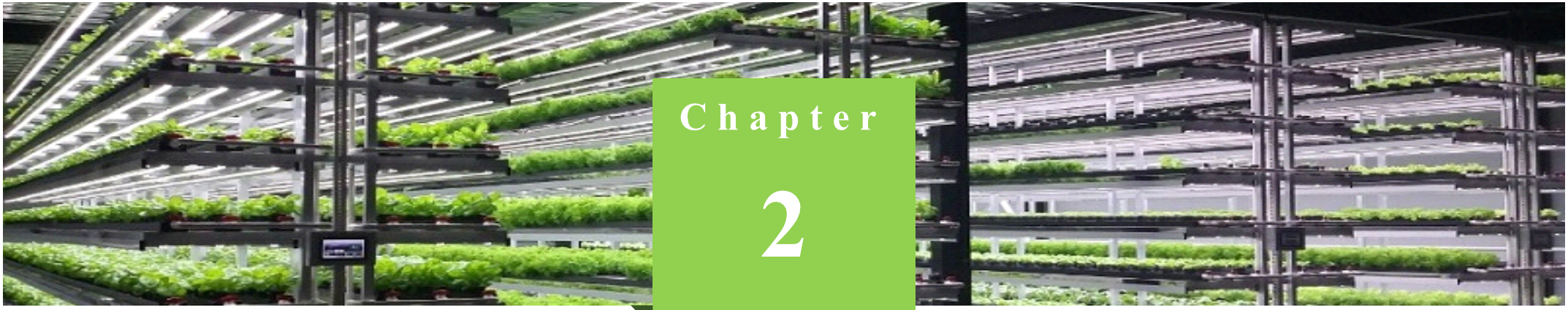




Managing over 1,500 farms nationwide, with an annual usage of the app by over 300,000 users.
Reference and expansion in various countries around the world

- We are pleased to present a comprehensive proposal for the development of an advanced growing unit system specialized for lettuce cultivation.
- This innovative solution encompasses both software and hardware development, meeting the precise requirements of our U.S.-based customers.
- This proposal, emphasizing compliance with U.S. regulations, integrates cutting-edge IoT/ICT/IT systems, and is poised to revolutionize lettuce cultivation through optimized hardware and software components.





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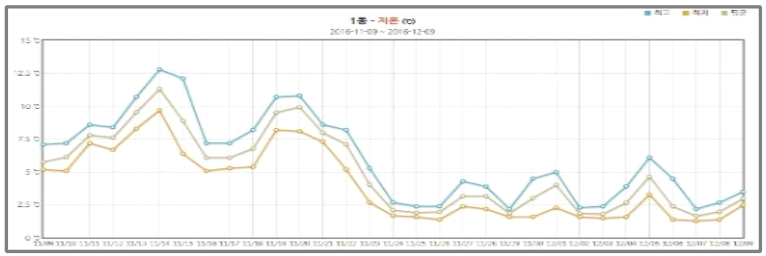
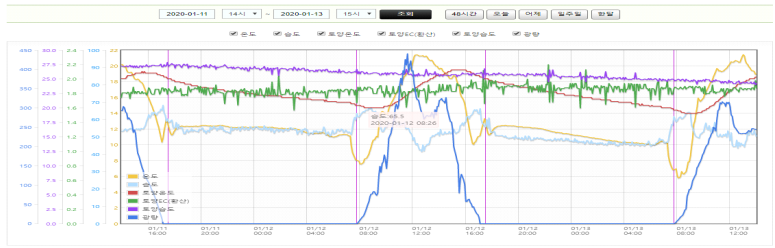
Scope of work

1. Cultivation software development

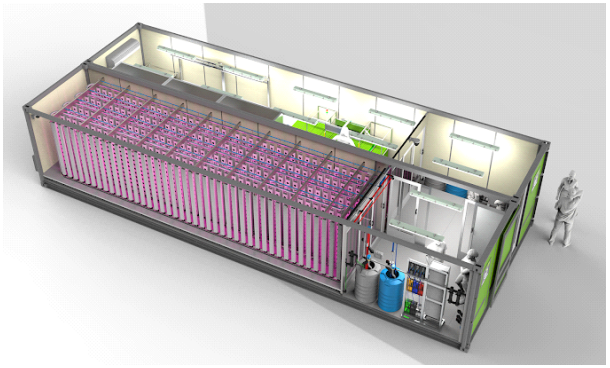
- Our expert team develops software utilizing state-of-the-art IoT/ICT/IT systems designed to maximize lettuce growth.
- It includes real-time monitoring, data analysis, remote control function and efficient data transmission.
- Utilizing accumulated data analysis, it's possible to pre-emptively set alarms for potential issues. In case of any malfunctions, administrators can receive alarm messages (via push notifications or SMS) to minimize potential damages.
- The system ensures precise environmental control, providing optimal conditions for lettuce cultivation.





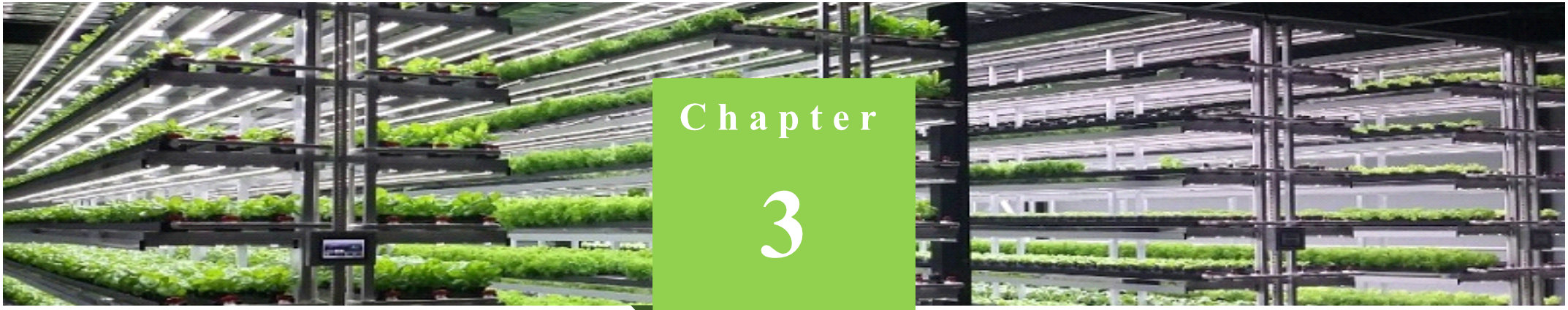
2. Cultivation hardware system development

- We design and develop essential hardware components for the cultivation process.
  - ✓ Environmental control: temperature, humidity, CO2, ventilation (HVAC), air conditioning, etc.
  - ✓ Nutrient solution control: EC, pH control.
  - ✓ Drainage Control: virus sterilization through UF treatment based on drainage recirculation.
  - ✓ Light source control: efficient light source control using natural light (sunlight) & Quantum Dot LED technology.
  - ✓ Cultivation bed control: securing ease of cultivation and shipment work through lane installation.
- This includes an air conditioning system for temperature and humidity control, an air circulation system within cultivation beds, a nutrient supply mechanism for optimal growth, an advanced irrigation system ensuring consistent water supply, and a lighting control system utilizing Quantum Dot LED technology.
- Each component is carefully designed for perfect maintenance, ensuring seamless integration and superior performance based on decades of know-how.



3. Regulatory Compliance

- Our development process complies with all US regulations relating to agriculture and cultivation.
- This solution will meet quality, safety, and environmental sustainability standards.



Chapter

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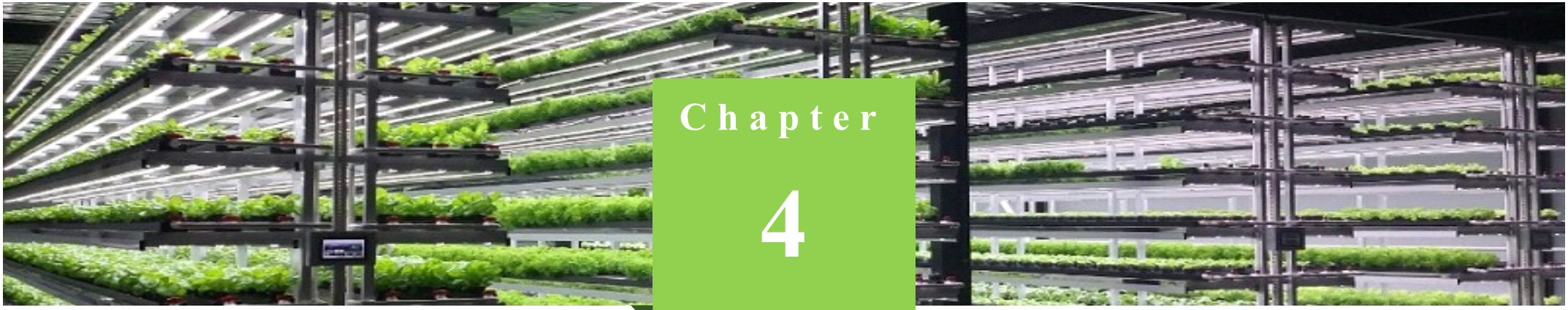
Schedule and investment

1. Project duration

- The proposed development will take place over 6 months, during which time our team will bring their expertise to the realization of this solution.

2. Investment

- This comprehensive solution is offered at a cost of $100,000 that includes both software and hardware development.
- Development of the first demo system is also included in this investment.



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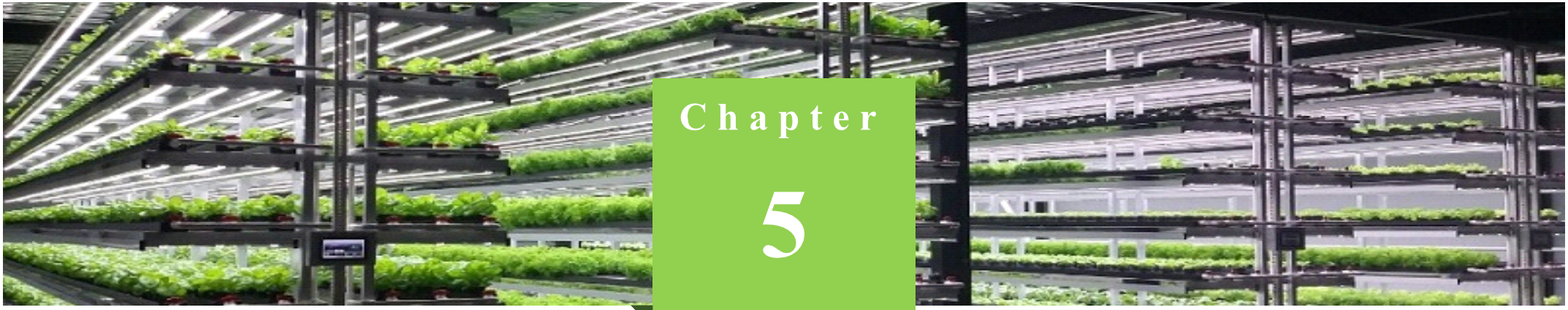
Benefits and outcomes

1. **Cutting-edge technology**
   - By integrating hardware and software systems using cutting-edge IoT, ICT, and IT technologies, we ensure exceptional precision and control for lettuce cultivation, resulting in excellent yields and quality. Moreover, our solution offers convenient maintenance.
2. **Regulatory Compliance**
   - We meticulously pay attention to U.S. regulations to ensure that the solution perfectly aligns with US agricultural standards.
   - Furthermore, this system can be established as a standard in the United States.
3. **Efficiency and Sustainability**
   - This holistic approach enhances resource efficiency and sustainability, contributing positively to both the environment and profitability.
4. **Demo system**
   - The first demo system included in the scope of development allows for a visual preview of the solution's functionalities.



Chapter

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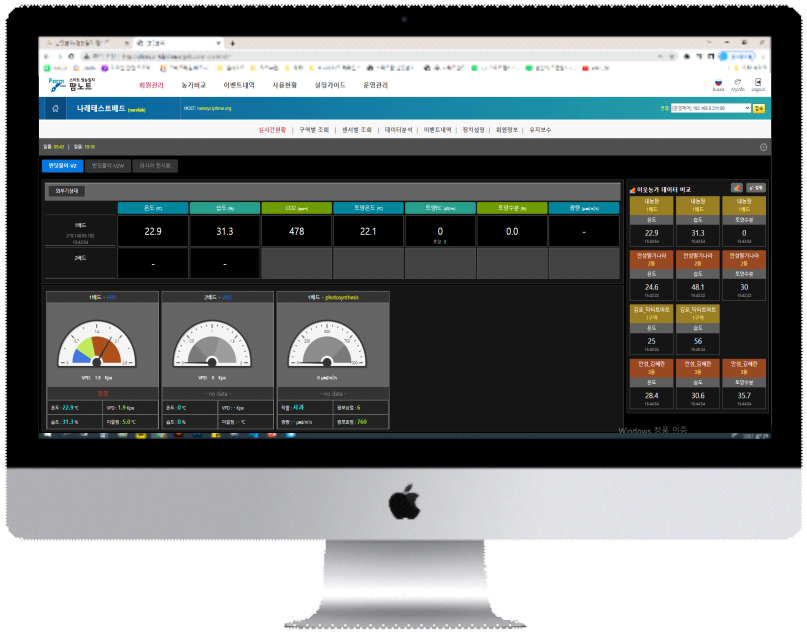
Conclusion

- We are committed to revolutionizing lettuce cultivation through the convergence of cutting-edge technology and meticulous engineering.
- We believe that our comprehensive proposal for cultivation unit system development will not only meet your expectations but also exceed them by establishing new standards in lettuce cultivation.



Thank you

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