Docket #: S20-036

Advanced Adaptable Agricultural System (A3S): Combined-use drying and growing greenhouse for year-round utilization in agriculture

The Advanced Adaptable Agricultural System (A3S) is a remote monitoring and automation system that offers year-round growing and drying capabilities. A3S supports growth of high-value crops, improved post-harvest quality and yield through drying, and reduced food degradation or spoilage. By utilizing multifunctional components for both growing and drying, A3S provides multi-season function without added equipment costs. The system primarily runs on solar energy, further reducing operational costs for farmers. Combined with data monitoring and remote control, A3S is applicable for farmers seeking income-enhancing agricultural equipment.

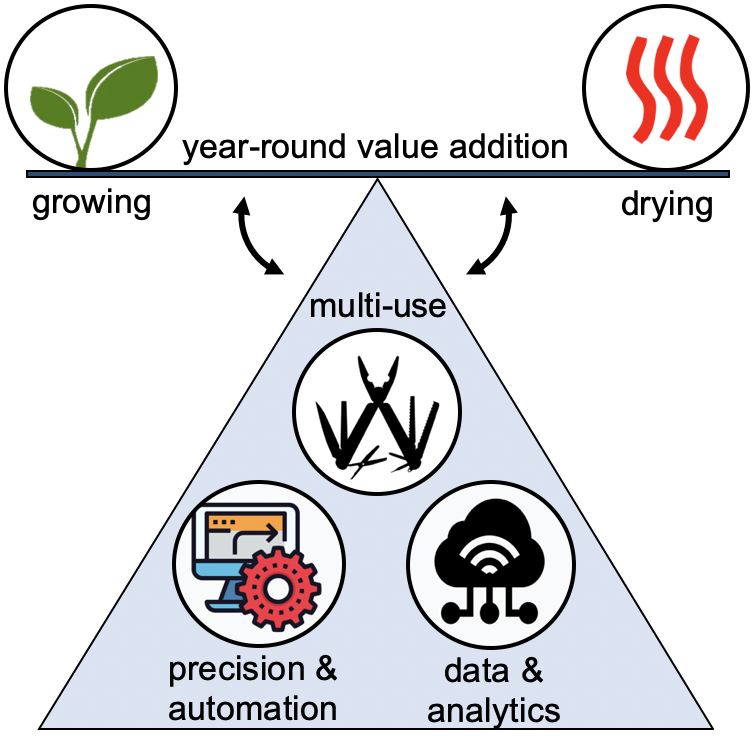


Image courtesy of Michael Machala

Stage of Research

- Prototype

Applications

- **Precision and smart farming**
- Controlled harvest drying

Advantages

- **Combined growing and drying system: multifunctional components to minimize costs**
- Microcontroller for data recording, monitoring and remote use
- Minimal electricity usage: system primarily relies on solar energy

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