



**Orchard
Robotics**

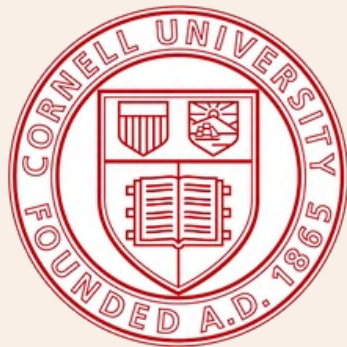
February 27th, 2023

**Western NY Fruit Conference
Lightning Talk: Ag-Entrepreneurship**

We're a startup company spun out of Cornell.

We're a small team of 7 scientists, engineers, and researchers

We're proud to be supported by:



Cornell AgriTech
New York State Agricultural Experiment Station
Center of Excellence For Food and Agriculture



**ENTREPRENEURSHIP
AT CORNELL**



We've built technology to help growers get the data you need for Precision Crop Load Management.



Crop Load Management is a delicate balancing act

- Aim to reach an optimum crop load across trees, in the face of wide variability and imperfect information
- Many \$\$ are at stake
- Many trees, not enough time to count/size the fruit on them all
- How do we get precision data for PCLM at scale? Prime problem for Ag-tech

Ag-tech Entrepreneurship vs. Other Industries

- Speed / Pace of development
- Emphasis on accuracy + robustness
- Very cyclical: Lots of learning each season
- Great responsibility & impact to get things right
- Collaboration is key: Company, Grower, Research community

Backed By Science

- Precision Crop Load Management research
- Building off many years of research to bring this to fruition
- Work closely with research community
- Discovery vs. Implementation → How to use researched techniques and implement them at scale with technology?

Validating product in industry

- Listening to growers is the most important thing
- How can we get the data that growers actually need?
- How can we make this data actionable with the tools that growers already have?
- How can we help growers create the most value with minimal additional work or time spent?

Technology Research

→ **Prototype**

→ **Commercialization**

- Technology research, need to prove something can work
- Prototypes have to demonstrate they can work multiple times and handle multiple scenarios
- Commercially released products work majority of the time

Our Technology:

Advanced Camera Systems that mount to UTVs and tractors to count, size, and measure growth of millions of visible fruit on the trees you drive by.



Thank you for your time!

Any questions?

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