AgTech Is Taking Root in Specialty Crops

According to the 2023 AgTech Trends research study, specialty crops* agribusinesses are overwhelmingly positive about adopting AgTech solutions like AI and predictive analytics to help their businesses thrive amid increasing climate, labor, inflation and supply chain challenges.

AgTech budgets are increasing.

Top investments:

- Precision agriculture solutions
- Yield prediction
- On-farm robotics/autonomous systems

Specialty crops teams are fighting an uphill battle both on-farm and off-farm using legacy methods

Top 3 Stressors
for specialty crops agribusinesses

- Increasing costs
- Excessive workloads
- Not enough time/ juggling competing demands

Currently, on-farm data is being collected by
(Respondents were able to select all that apply.)

- Machinery **64.5%**
- Apps in the field **60%**
- Sensors **55%**

93% of specialty crops agribusinesses find it **challenging to use data to improve on-farm activities**

Top 3 Challenges
with on-farm data that's being collected

- Incomplete data collections
- Data inconsistencies
- Difficulty accessing or deriving value from data

Not only are people using many different applications, but their data is scattered, and **they're spending excessive time on data analytics**

11+ HOURS PER WEEK to collect, collate and analyze data for **77%** of respondents

16+ HOURS PER WEEK to collect, collate and analyze data for **25%** of respondents

Despite all this work, yield predictions are consistently inaccurate

60% believe their yield predictions are not accurate or only somewhat accurate based on the data available to them

Climate change is an exacerbating factor

70% report climate change is decreasing their yields or making them highly unpredictable

The future of agriculture: specialty crops agribusinesses believe AgTech can help them and they are overwhelmingly positive about advanced technologies

80.7% agree that **using real-time data and AI can improve yield outcomes at lower cost per unit**

The vast majority of respondents agree (98.7%) that **advanced data analytics** is important to the future of agriculture.

This is an important evolution because **more than half of specialty crops** already rely primarily on their on-farm data to guide growing.

Over 80% believe AI can improve data analysis and the accuracy of yield prediction and estimation

3 out of 4 say AI will help them accomplish complicated data analysis at scale

75% say inflation is a top factor driving AgTech adoption at their company

95.5% believe that digital transformation will drastically change their jobs as they know it from now into the next decade

AgTech procurement and budgets are increasing to solve pressing challenges faced by specialty crops agribusinesses

66% say **their company's budget for AgTech will increase in the next 12 months**

Companies have identified an initiative or have established budget for
(Respondents were able to select all that apply.)

- Precision crop management **64.4%**
- Improving irrigation **59.7%**
- Yield prediction **55.2%**

In the **next 24 months**, companies will increase investment in

- Precision agriculture tools
- Farm management software
- Data consolidation

97% would **find it valuable to have one place to access all the data and apps** needed to do their jobs

Improved yield prediction delivers value by reducing costs through better planning and helps growing teams adjust on-farm practices to improve yields and get better supply chain return on what is grown

Better weather forecasts would help:

96.8% would find it **valuable to make harvest predictions more frequently with more granularity**

Specialty crops companies are ahead of the curve on sustainability initiatives to improve the impacts of agriculture on people and the planet

77% currently have one or more sustainability initiatives in place

40% report that sustainability is a core corporate value

85% say their sustainability initiatives are effective at meeting their objectives

THE YIELD TECHNOLOGY SOLUTIONS

The AgTech Trends 2023 independent research study surveyed 621 individuals working in specialty crops in the agribusiness sector.

For more information:
www.theyield.com

**USDA definition of specialty crops: fruits and vegetables, tree nuts, dried fruits and horticulture and nursery crops, including floriculture... that are cultivated either for sale or for subsistence.*