



AgroScout's machine-learning algorithms use Oracle Cloud to analyze drone-captured images of farm fields. By knowing which pests and diseases to treat, growers can save money, improve yields, and feed more people.

Helping farmers grow

Rising populations means 2 billion more people will need to be fed in the coming decades. Meantime, farmers are looking to use fewer pesticides because of regulations, cost, and environmental concerns.

Startup AgroScout aims to solve those problems by giving farmers "autonomous scouting" technology to spot pests and diseases sooner, and thus apply pesticides only where and when they're needed. A drone flies over a farm field capturing images of crops far more quickly and thoroughly than a human could. Machine-learning algorithms analyze the collected image data, telling farmers when and where to spray.





Analysis powered by machine learning

AgroScout is taking on a massive, ongoing computing challenge: Help farmers scan millions of images captured from their fields to decide if a given leaf is healthy. If it's not, machine-learning algorithms built into the company's autonomous scouting system determine if the culprit is one of the diseases or pests it knows or if it needs to identify the traits of a new threat.

AgroScout CEO Simcha Shore turned to Oracle Cloud to develop and run the system's applications and algorithms. For its application to collect, manage, and upload images to the cloud, AgroScout uses <u>Oracle Cloud Native Services</u>, including <u>Container Engine for Kubernetes</u> and <u>Cloud Infrastructure Registry</u>. Application updates used to take 24 hours with a previous cloud provider; now developers do them in minutes. AgroScout's machine learning relies on <u>Oracle Cloud Infrastructure's</u> GPU instances, providing the speed and performance that machine-learning workloads demand.

"We're on a journey that's about food security. Robotics and AI, along with cloud computing, are allowing us to do this on a global scale."

— Simcha Shore Founder and CEO, AgroScout

