

AI in Agriculture:

Agriculture and farming is one of the oldest and most important professions in the world. As the world population continues to grow and land becomes scarcer, people have needed to get creative and become more efficient about how we farm, using less land to produce more crops and increasing the productivity and yield of those farmed acres. Now the industry is turning to AI technologies to help yield healthier crops, control pests, monitor soil and growing conditions, organize data for farmers, help with workload, and improve a wide range of agriculture-related tasks in the entire food supply chain.

Application of AI:

1. **AI helping analyze farm data:** Farms produce hundreds of thousands of data points on the ground daily. With the help of AI, farmers can now analyze a variety of things in real time such as weather conditions, temperature, water usage or soil conditions collected from their farm to better inform their decisions. For example, AI technologies help farmers optimize planning to generate more bountiful yields by determining crop choices, the best hybrid seed choices and resource utilization.
AI is also used to create seasonal forecasting models to improve agricultural accuracy and increase productivity. In addition to ground data, farmers are also taking to the sky to monitor the farm.
Computer vision and deep learning algorithms process data captured from drones flying over their fields. From drones, AI enabled cameras can capture images of the entire farm and analyze the images in near-real time to identify problem areas and potential improvements.
2. **AI tackles the labor challenge:** With less people entering the farming profession, most farms are facing the challenge of a workforce shortage. Traditionally farms have needed many workers, mostly seasonal, to harvest crops and keep farms productive. One solution to help with this shortage of workers is AI agriculture bots. These bots augment the human labor workforce and are used in various forms. These bots can harvest crops at a higher volume and faster pace than human laborers, more accurately identify and eliminate weeds, and reduce costs for farms by having a round the clock labor force. Through the use of AI and cognitive technologies farms across the world are able to run more efficiently, with less workers than before while still meeting the world's food needs.

Food processing is one of the major manufacturing sectors. For the most part, the sector is a very high volume, low margin industry. Finding new ways to gain even modest increases in efficiency can make the difference between a facility turning a profit or a loss. This is why some of the largest food processing companies are turning to artificial Intelligence technology in attempts to improve numerous aspects of the process.

AI applications are relatively specific to food processing and preparation, but there are many more general uses of AI that directly and indirectly have an impact on the industry. Few of the main applications are:

- 1) Sorting products and packages
- 2) Food safety compliance
- 3) Improved cleanliness
- 4) Produce development
- 5) Marketing



World-Top 10 world best known AgriTech companies using Artificial Intelligence

1. Blue River Technology

Specialisation - Weed Control

URL - <http://www.bluerivertechnology.com/>

Main Phone: +1 (408) 733-2583

CEO - Jorge Heraud

2. Harvest CROO Robotics

Specialisation - Crop Harvesting

URL - <https://harvestcroo.com/>

Main Phone: (813)498-4278

CEO – Grey Wishnatzki and Paul Bissett

3. PEAT

Specialisation - Machine Vision for Diagnosing Pests / Soil Defects

URL - <https://peat.technology/>

Main Phone: +49 - (0)176 43537145

CEO - Simone Strey

4. Trace Genomics

Specialisation - Machine Learning for Diagnosing Soil Defects

URL - <https://tracegenomics.com/>

Main Phone: +1 650-332-6661

CEO – Dan Vradenburg

5. SkySquirrel Technologies Inc.

Specialisation - Drones and Computer Vision for Crop Analysis

URL - <https://www.f6s.com/skysquirreltechnologiesinc>

Main Phone: 1-902-442-0742

CEO – Richard van der Put

6. awhere
Specialisation- Satellites for Weather Prediction and Crop Sustainability
URL - <https://www.awhere.com/>
CEO – John Corbett

7. FarmShots
Specialisation- Satellites for Monitoring Crop Health and Sustainability
URL - [http:// farmshots.com/](http://farmshots.com/)
Main Phone: (954) 729-3963
CEO – Joshua Miller

8. Abundant Robotics
Specialisation- Apple Harvesting Technology
URL - <https://www.abundantrobotics.com/>
Main Phone:
CEO – Dan Steere

9. Ibex Automation
Specialisation- Agricultural Robot Systems
URL - <https://www.ibexautomation.co.uk/>
Main Phone: 519-949-4394
CEO – Mark De Groot

10. Hortau Inc
Specialisation- Web-Based Irrigation Management System
URL - <https://hortau.com/>
Main Phone: (805) 545-5994
CEO – Jocelyn Boudreau

Top 5 Indian Agri Tech Companies using Artificial intelligence

1. Satsure
url: <https://www.satsure.co/>
CEO- Amardeep Sibia

2. Fasal
url: <https://fasal.co/>
CEO- Ananda Verma

3. Aibono
url: <http://www.aibono.com/>
CEO- Vivek Rajkuma

4. Gobasco
url: <https://www.gobasco.co/>
CEO- Vedant Katiyar

5. Cropin
url: <https://www.cropin.com/>
CEO- Krishna Kumar