

# Future of Agriculture and Agribusinesses



## **Summary**

Agriculture across the world faces a myriad of challenges related to climate change, farm planning, pest infestations, lack of tech expertise, etc. FarmERP has been providing ingenious and cutting-edge digital solutions to help agriculture stakeholders in tackling these critical concerns for the last two decades. By making the agricultural activities more productive and optimising business operations, FarmERP is thus unfolding a new era of growth for agriculture and agribusinesses. Download the whitepaper to know more.

FarmERP has always been at the forefront of innovating tech-driven solutions (Agriculture 4.0) to mitigate the problems of stakeholders across the agri value chain. These solutions by FarmERP have been focused on both - on-field as well as off-field activities. As a result, FarmERP has managed to stir up a revolution in the agricultural sector and introduced a new dawn for agribusinesses across the world.

Right from the simple aspects of integrating local languages and providing multiple payment options to the critical factors of third-party integrations and IoT-driven agriculture - FarmERP platform has been delivering it all. Through intelligent technology solutions, FarmERP has been empowering various agribusinesses and enterprises to tackle critical challenges pertaining to planning, production, harvesting, post-harvest, exports, etc.

Here are 8 factors that explain why FarmERP's next-gen platform is set to revolutionise the agriculture sector and foster a prosperous future for global agribusinesses.

## **Farm Analytics**

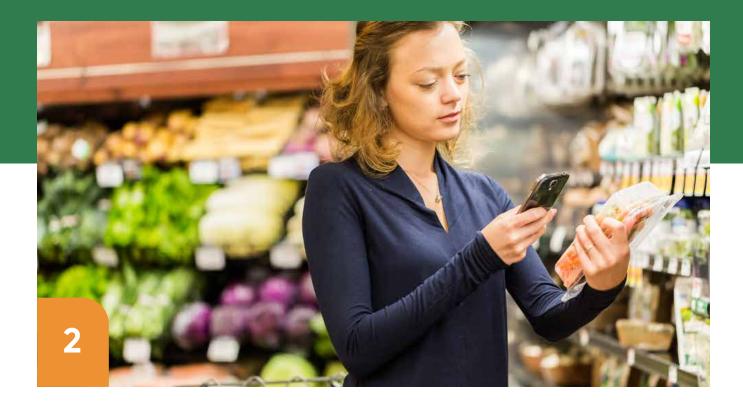


To counter the pressures of rising food demand and climate changes, many producers and leading agribusinesses today are seeking the assistance of farm analytics. FarmERP can help agribusinesses in making farm management more precise by efficiently analysing their production and post-production operations. We offer 150+ reports and multiple dashboards to provide you with vital insights into your agribusiness functions.

With the provision of customised reports, FarmERP assists agro enterprises in

identifying potential risks well in advance. This enables organisations to make smart and timely decisions and ensures the optimal utilisation of fertilisers, seeds, pesticides, etc. With our farm analytics capabilities, we also guide agricultural organisations in carrying out data-driven agricultural practices to achieve better yields and bigger profits.

## **Blockchain-based Traceability**



Food safety concerns are at an all-time high. Consequently, more and more people today want to know about how their food is being sourced. Providing visibility over the entire agricultural supply chain has become more important than ever before in order to win customer trust. One strong solution to this problem is blockchain technology. Blockchain can provide transparency across agricultural supply chains and help in facilitating trustworthy food supply chains.

FarmERP's traceability software provides organizations of all sizes with an increased

understanding of where a specific agriproduct originated and what steps were taken along the way. This helps the end-consumers know if there is any risk associated with consuming the agriproduct before purchasing. FarmERP's blockchain-based traceability can also be quite beneficial in improving the agility and accuracy of responses in case of recall incidents.

## **IoT-driven Agriculture**

FarmERP has integrated the following IoT devices to help a number of clients in their agricultural operations -



#### **Weather Devices**

Automated weather stations were integrated into a large farm consisting of 3.5 million fruit trees. The data gathered by the weather stations was transferred to the FarmERP platform. This enabled us to provide the agribusiness with analytical insights for better decision making.

#### **Biometric Devices**

For a 5000-acre plantation, FarmERP was integrated with a biometric device to carry out labour attendance. Simultaneously an Iris recognition system was installed to make labour attendance more accurate and seamless.

Our AI-based face recognition model is being used to streamline the labour attendance process on a vegetable plantation spread over 1200 acres.



#### **Soil Sensors**

For one of our clients growing pomegranates, we integrated soil sensors to detect and record details such as soil moisture, soil temperature, nutrient content, soil pH, EC and soil aeration. Based on information collected through these sensors, we provided the client with recommendations for the wise use of water for irrigation as well as adequate fertiliser usage. This helped them optimize the utilisation of water and fertilizer.



#### **Third-party API Integration**

We integrate third-party Application Programming Interfaces (APIs) related to weather, chemicals, and quality. This helps us offer climate-smart advisory services to help our clients in efficiently managing pests, disease outbreaks, crop water requirements, ensuring residue free farm production etc.

#### **Weighing Scale**

We carried out weighing scale integrations for agribusinesses that procure fresh fruits and vegetables from farmers. The data captured by the weighing scales is automatically transferred to the FarmERP database.





#### **Telematics Device**

Farm machinery maintenance and machinery economics is a critical factor in overall farm profitability. Telematics or tracking devices are fitted on the farm machinery and equipment. Location, movement and fueling data from these devices were transferred to the FarmERP database. Our data reports and dashboards make life easier to take important decisions about farm machinery economics.

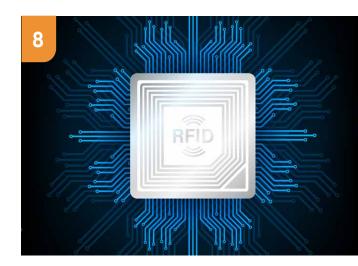


#### **Barcode/ QR Code Printing**

FarmERP prints barcode/ QR code labels and applies them on the crates, boxes, packages, cartons and other finished or packed goods. This integration of QR code printers helps in ensuring the farm-to-fork traceability of each and every batch.

#### **RFID Card**

For a Farmer Producer Organisation consisting of 12000 farmers, we have integrated an automated RFID-based identification. The farmer producer organisation could easily access purchases and sales associated with an individual farmer. Whenever a farmer places the RFID card on the reader, reward points are automatically generated based on his sales or purchase history. These reward points can be used by farmers to avail a discount on their next purchases.





### **Automated Irrigation Systems**

We integrate automated irrigation systems for several clients wherein the irrigation operations can be remotely controlled. These operations are based on the amount of water to be pumped or based on the water requirement of a specific plot on a particular day. We enable mobile-app based auto valves for water pump controlling which makes the irrigation process extremely efficient and automated.



#### Surveillance Camera

FarmERP integrates surveillance cameras to monitor field operations easily and effectively, especially in the case of widely spread plantations or farms. These surveillance cameras have been used by our clients to keep track of activities performed, plant growth monitoring and attendance.

#### **Point of Sales Integration**

Our software platform integrates a point-of-sale (POS) device to enable it to perform customer-specific retail transactions. FarmERP's POS module along with POS console can make your retail stores more efficient and provide improved customer engagement. Loyalty programs are integrated with this system.



#### **Agricultural Drones**

FarmERP integrates drones for surveillance as well as for spraying purposes. While surveillance drones are helpful in keeping an eye on the entire field, the spraying drones assist in making wise use of farm inputs such as pesticides, fertilizers, etc.

# Payments Ready Platform



Having a flexible payment ecosystem is indispensable so as to keep customers satisfied. FarmERP offers such a payments ready platform to make the complex process of payments simpler and easier for your agribusiness. Our payments ready platform offers a number of payment options.

FarmERP makes sure that all your transactions are safe and secure. We ensure that there are no obstacles or too many complexities that make it difficult for agribusinesses to manage payments. FarmERP eliminates the possibility of payment failures and guarantees a smoother checkout experience to its customers.

## **Satellite Imagery Analysis**



A major hurdle affecting agriculture production is pest infestations, nutrient deficiency issues such as phosphorous/nitrogen ratios, as well as soil-borne diseases. FarmERP's satellite imagery analysis offering can be a huge help in determining all these factors with more accuracy than ever before. This can be extremely beneficial for microcredit, insurance and finance companies to assess crop health parameters and make yield estimations accordingly.

Through satellite imagery analysis, FarmERP provides agribusinesses with complete visibility into their field operations. This enables the growers to accurately identify any concerns related to vegetation, moisture, abiotic stress, biotic stress, micronutrient stress, and yield estimation. With the help of these details, agribusinesses can implement the best cultivation and farm management practices and yield high-quality crops.

# **Tech-driven Farm Management**

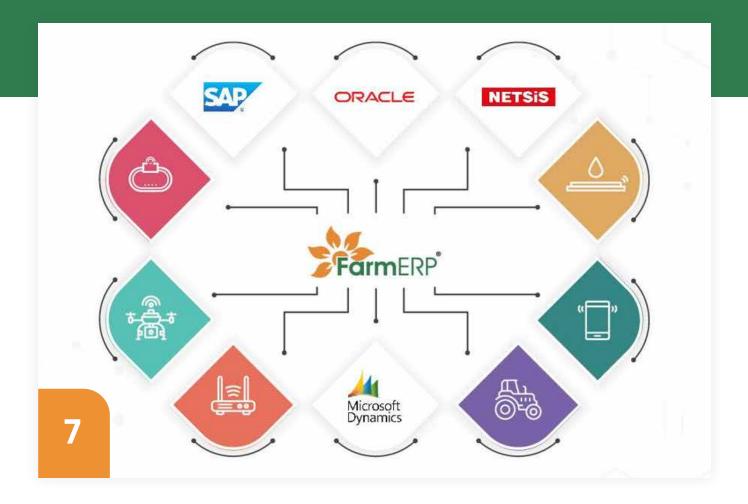


FarmERP makes use of cutting-edge technologies and algorithms to streamline farm management and make agricultural activities more predictable and profitable. Through our tech-based offerings involving artificial intelligence (AI), machine learning (ML), deep learning, and computer vision, we help agribusinesses in yielding healthier and high-quality crops.

Al and ML technologies are not only useful in boosting farm production but also aid smarter decisions, enhance agricultural

efficiency and contribute immensely to reducing food wastages. Al can be beneficial in carrying out predictive analytics for your farms. It can also help you gain critical insights into the crop and soil health of your farms or plantations.

## **Integration Capabilities**



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## **Multilingual ERP**



When it comes to managing your farm, access to farm management expertise is extremely essential. But what if this expertise is not available in a language you understand? In such a scenario, the knowledge pertaining to farm management won't be of any use and you would be deprived of carrying out the best practices for your farm. Fortunately, the FarmERP software platform is available in every major language.

With FarmERP, the farm management efforts of farmers are not affected due to any language barriers. Access to the

FarmERP platform in the local language also enables the farmers to understand and leverage our service offerings in the most efficient manner. This is playing a vital role in transforming the livelihoods of farmers and strengthening the potential of agribusinesses across the world.

For the last two decades, FarmERP has been aiding the technology-intensive transformation of agriculture and agribusinesses. Our future-ready software platform and state-of-the-art agritech solutions have been improving productivity, simplifying farm management, and driving positive outcomes for enterprises across the globe. Contact us to know more about how FarmERP can provide solutions to address the specific challenges of your agribusiness.

## **Get in Touch**



#### Call

+91-20-24216370

#### Fax

+91-20-24216370

#### Corporate

info@farmerp.com

#### Sales

sales@farmerp.com

#### Website

www.farmerp.com



