

“Our technology bridges scientific precision with farmer knowledge, creating a system that is scalable, future-ready, and capable of transforming agriculture at scale”



AJAY SHELKE, Deputy General Manager – IT, WOTR

As climate volatility reshapes Indian agriculture, digital intelligence is emerging as a critical resilience tool. In this exclusive AgroSpectrum interview, Ajay Shelke of WOTR explains how FarmPrecise applies AI and hyperlocal weather data to deliver field-level advisories and evolve into a farmer-centric digital operating system for climate-vulnerable regions. Edited experts;

How does FarmPrecise digitally advance WOTR's climate-resilient agriculture mission?

FarmPrecise envisions becoming a technology leader in digital agriculture by harnessing cutting-edge innovations like AI and remote sensing. Our goal is to ensure that every farmer, even in regions without IoT sensors or weather stations, receives accurate, field-level advisories derived from advanced remote sensing and intelligent data analytics.

Partnerships with CSR donors and Philanthropies will not only help expand our reach to more farmers but also fuel continuous product enhancement, enabling us to deliver richer features, a superior user experience, and increasingly precise insights that encourage nature-positive farming practices, strengthen livelihoods, and advance ecosystem-based adaptation. In the next phase, FarmPrecise will enhance its livestock advisories, which currently focus on cattle diseases, by integrating weather-based climate advisories to ensure holistic support for farming communities.

What truly sets FarmPrecise apart from other agri-tech platforms in India?

FarmPrecise differentiates itself as a cutting-edge digital platform that directly impacts farmer incomes while building long-term resilience to climate change. Farmers using the app typically see higher yields and lower input costs, which translates into increased profitability. At the same time, the platform delivers co-benefits

such as improved soil health, efficient water use, and reduced crop losses from weather shocks, advantages that strengthen both livelihoods and sustainability.

Unlike static advisory systems or models, FarmPrecise delivers dynamic, hyperlocal guidance that changes with the crop stage, soil conditions, and real-time weather forecasts. What sets it apart is the way farmers participate in generating this intelligence. Each user inputs location, crop, soil fertility details, and sowing dates, which creates a personalised advisory unique to their field. They also share field observations and feedback, making them co-evolvers in the system, not passive recipients.

Another differentiator is the breadth of services available through a single, easy-to-use interface. From crop and pest management to livestock advisories and market intelligence, FarmPrecise offers a suite of more than a dozen farm-related services, all accessible via an AI-assisted chatbot that simplifies decision-making for even first-time users. The platform is built on open standards and APIs, making it scalable and adaptable across geographies. It is already being integrated with government systems in Maharashtra and rolled out through FPO, which accelerates adoption and institutional uptake.

Ultimately, FarmPrecise is not just an advisory tool—it is an income-enhancing ecosystem that helps farmers make data-driven, climate- and market-smart decisions. Its technology bridges scientific precision with farmer knowledge, creating a system that is scalable, future-ready, and

capable of transforming agriculture at scale.

How soon can your AI pest forewarning model scale beyond cotton and soybean?

We plan to scale up the pest forewarning model, which was successfully piloted for cotton and soybean, by first completing its validation and using the insights to refine and replicate the approach for other crops with strong historical data. The expansion will involve strengthening pest and disease observation systems, integrating additional variables to build richer correlations, and customizing prediction models for each crop based on its specific pest dynamics. These models will be continuously trained and calibrated using real-time field data, and their outputs will be linked to farmer-friendly advisory systems, including AI-driven, localised communication channels, to ensure timely, actionable alerts. The rollout will follow a phased approach, starting with a few priority crops and gradually expanding across other crops and regions.

How have FarmPrecise's 20% input-cost savings tangibly improved farmer incomes?

Yes, multiple farmer experiences clearly show how FarmPrecise's tools have contributed to significant cost savings and improved livelihoods. For example, Laxman from Osmanabad, Maharashtra, followed the app's preventive and organic recommendations, using pheromone traps and timely interventions instead of frequent chemical sprays. This led to a marked reduction in pest attacks and nearly 20 per cent savings in crop protection costs. Similarly, Suresh from Telangana used FarmPrecise to track crop-wise expenses and income, giving him a clear understanding of the profitability of each crop. This helped him make better decisions about what to grow and where to plant, reducing unnecessary input costs and improving overall returns. In addition, the platform's customised weather advisories—such as the best time of day for spraying (based on wind speed) and alerts for extreme events—have enabled many farmers to avoid losses through timely action. Together, these stories demonstrate how FarmPrecise's data-driven insights and decision-support tools help farmers lower input costs, minimise crop losses, and build stronger, climate-resilient livelihoods.

Can FarmPrecise become the digital backbone for decentralised, FPO-led value chains?

FarmPrecise is integrating FPOs into its ecosystem to strengthen both the procurement of member produce and the sale of quality inputs. By enhancing FPOs' digital presence, the platform enables smoother operations while helping farmers secure better prices, timely aggregation, and access to reliable inputs at discounted rates.

At the same time, FarmPrecise's data-driven advisories promote low-chemical, environment-friendly cultivation through ETL-based pest management, pheromone traps, and timely interventions—supporting the production of Safe Residue-Free Produce, which is increasingly valued in premium markets.

With widespread adoption of these sustainable practices, FPOs can aggregate and market cleaner, safer produce, opening differentiated market opportunities and building consumer trust. Our pilot procurement drive has already shown how digital coordination streamlines and accelerates aggregation, while allowing FPOs to plan procurement well ahead of the season. By linking farmers and FPOs on a single digital platform—covering both input access and produce sales—FarmPrecise is enabling stronger, decentralised, and climate-smart value chains.

Looking five years ahead, what is your vision for FarmPrecise?

Looking five years ahead, we envision FarmPrecise becoming a comprehensive Farmer Operating System—a unified digital ecosystem supporting farmers throughout their production and marketing cycle. Evolving beyond advisories, the platform will integrate deeply with FPO-led procurement and marketing networks, ensuring farmers receive real-time guidance, fair prices, timely aggregation, and transparent market access.

A key part of this vision is enabling farmers to adopt environment-friendly, low-chemical practices, helping them produce safe residue-free crops that FPOs can brand and market in premium, health-focused segments. By building decentralised, farmer-centric value chains, FarmPrecise will strengthen FPOs as engines of rural economic growth. Our long-term vision is a resilient, decentralised, farmer-owned digital ecosystem. 

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