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Smart Farming in Your Pocket: Role of Mobile Apps in Agriculture

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Agriculture is the backbone of India, supporting nearly 58% of rural livelihoods. However, farmers face several challenges such as pest outbreaks, climate variability, nutrient deficiencies, and lack of timely expert advice. In today's digital era, mobile applications (apps) are transforming agriculture by providing real-time solutions directly to farmers. With just a smartphone, farmers can now identify pests and diseases, check weather forecasts, get crop advisory services, access market prices.

Mobile apps are bridging the gap between agricultural research and field-level farming, helping farmers make quick and informed decisions.

Important Mobile Apps for Farmers

Plantix is a mobile application developed by PEAT GmbH, Berlin, that helps farmers quickly identify crop diseases, pests, and nutrient deficiencies using image-based diagnosis. By uploading a photo of an affected plant, farmers receive instant results along with recommended management practices. The app includes a database of over 700 plant disorders, organized by crop and growth stage. It also provides fertilizer recommendations, irrigation advice, and preventive measures. Plantix uses geotagging to alert farmers about nearby pest outbreaks and enables users to record field observations. Additionally, its global farmer community supports knowledge sharing and promotes better decision-making in agriculture.

MylPM (MyIPM) App is a mobile-based tool developed by agricultural experts to support farmers in integrated pest and disease management (IPM). The app provides detailed information on crop-specific pests, diseases, and weeds along with their identification using images and descriptions. It offers both chemical and non-chemical control measures, including biological and cultural practices. Farmers can search pesticides by active ingredients or trade names, along with recommended doses, efficacy, and safety information. The app also includes pest life cycles, resistance management, and expert audio guidance, helping farmers make scientific, timely, and sustainable crop protection decisions in the field.

AGRIVI App is a modern farm management application designed to help farmers plan, monitor, and manage all farming activities efficiently. It provides real-time insights using weather data, soil information, and field monitoring tools, enabling data-driven decision-making. Farmers can track crop production, manage finances, record field operations, and monitor inventory from a single platform. The app also offers pest and disease risk alerts, best-practice crop advisory, and weather forecasts to improve productivity. By integrating

farm data, AGRIVI helps reduce input costs, optimize resources, and enhance profitability, making it a valuable tool for smart and precision agriculture.

RiceXpert App is a mobile application developed by the ICAR–National Rice Research Institute (NRRI), Cuttack, to support rice farmers with real-time crop management solutions. It provides information on insect pests, diseases, weeds, nutrient deficiencies, and suitable rice varieties for different regions. Farmers can diagnose field problems by sending photos, text, or voice queries and receive expert advice through SMS. The app also includes fertilizer recommendations, farm machinery details, and best cultivation practices. Acting as a digital advisory tool, RiceXpert helps farmers improve decision-making, reduce crop losses, and enhance productivity in rice-based farming systems.

Krishi Jagran App is a comprehensive digital platform developed to provide farmers with latest agricultural information and updates in real time. It serves as a one-stop source for agriculture news, government schemes, subsidies, and policy updates. The app also offers guidance on crop management, pest and disease control, and modern farming techniques. Farmers can access information on market trends, weather updates, and job opportunities in the agriculture sector. With its easy-to-use interface and localized content, the Krishi Jagran App helps farmers stay informed, adopt new technologies, and make better decisions for improving productivity and income.

Kisan Suvidha App is a government-developed mobile application that provides farmers with real-time agricultural information and advisory services. It offers weather forecasts (current and 5-day), helping farmers plan irrigation, spraying, and harvesting operations effectively. The app also provides market prices of crops, information on seeds, fertilizers, pesticides, and farm machinery. Farmers can access pest and disease management solutions along with expert guidance. Additionally, it includes details about nearby cold storage and warehouses. Available in multiple Indian languages, Kisan Suvidha acts as a single-window platform, enabling farmers to make informed decisions and improve farm productivity efficiently.

Plantix App	• Identifies crop diseases using photos • Provides instant solutions • Covers 700+ plant problems
MylPM App	• Pest and disease management • Chemical & non-chemical control methods • Pesticide recommendation with dosage
AGRIVI App	• Field mapping and crop monitoring • Weather-based advisory • Farm record management
RiceXpert App	• Specially for rice farmers • Fertilizer calculator • Pest and disease diagnosis
Krishi Jagran App	• Latest agriculture news • 6Government schemes & subsidies • Job opportunities in agriculture
Kisan Suvidha App	• Weather forecast (5-day) • Market prices • Pest advisory and expert guidance
Mango Cultivation	• App by ICAR- IIHR • Gives information for mango cultivation practices
Papaya Cultivation	• App by ICAR- IIHR • Gives information for papaya cultivation practices
Farm-O-Pedia	• Crop advisory based on locations for promoting safe pesticides use and also prevent banned pesticides
Ag PhD Field Pest Identification	• Field pest scouting for pest control decisions

Conclusion

Mobile applications are revolutionizing Indian agriculture by making farming smart, efficient, and knowledge-driven. These apps provide timely solutions for pest and disease management, weather forecasting, and crop improvement, helping farmers make informed decisions. They also empower farmers with expert advice and better market access, ultimately enhancing productivity and income. Applications like Plantix, MyIPM, Krishi Jagran, and Kisan Suvidha offer valuable support in crop cultivation and farm management. With increasing awareness and accessibility, mobile apps are set to play a crucial role in developing a sustainable, profitable, and technology-driven agricultural system in India.

References

1. PEAT GmbH. (2023). *Plantix: Your crop doctor*. Retrieved from https://plantix.net
2. ICAR–National Rice Research Institute. (2022). *RiceXpert mobile application for rice farmers*. Retrieved from https://icar-nrri.in
3. Indian Council of Agricultural Research. (2021). *Kisan Suvidha mobile application*. Retrieved from https://mkisan.gov.in
4. AGRIVI. (2023). *AGRIVI farm management software*. Retrieved from https://www.agrivi.com
5. Krishi Jagran. (2023). *Krishi Jagran mobile app and digital services*. Retrieved from https://krishijagran.com
6. ICAR–Indian Institute of Horticultural Research. (2022). *Mobile apps for mango and papaya cultivation*. Retrieved from https://iihr.res.in
7. Patel, R., & Patel, M. (2020). Mobile applications in agriculture: A review. *International Journal of Agricultural Sciences*, 12(2), 215–220.
8. Mittal, S., & Mehar, M. (2016). Socio-economic factors affecting adoption of modern information and communication technology by farmers in India. *Agricultural Economics Research Review*, 29(2), 213–223.
9. Aker, J. C. (2011). Dial "A" for agriculture: A review of information and communication technologies for agricultural extension in developing countries. *Agricultural Economics*, 42(6), 631–647.