MEPKO
Middle East Paidar Kesht Hoosh Co.

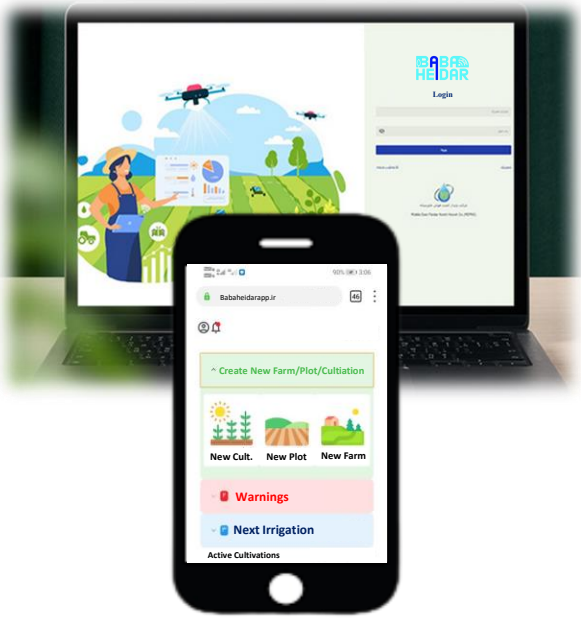
EVERY DROP FOR CROP MATTERS

PRECISION AGRICULTURE

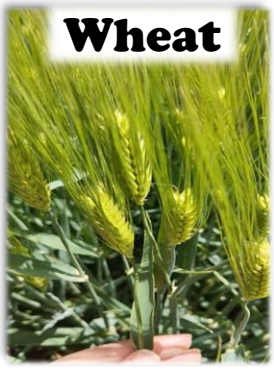
SMART IRRIGATION

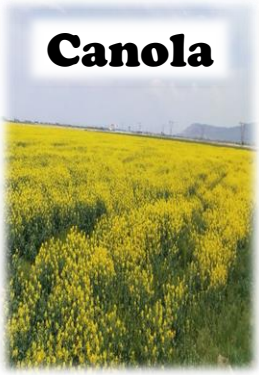
BABA HEIDAR

- **Customizable:** Farmers can adjust irrigation plans based on experience.
- **Optimize Water Use:** Enhance agricultural resources and farmer knowledge.
- **Scalable:** Suitable for large-scale agriculture, cooperatives, and services.
- **Empowering Farmers:** Enhancing knowledge and decision-making by physics-guided artificial Intelligence along with satellite data.
- **Real-time Data:** 8-day forecasts, temperature, wind, and water usage data.



Crops Now Live on Our Platform





Other Crops: Barely, Zucchini

Learn more about BabaHeidar today!

Isfahan Science and Technology Town

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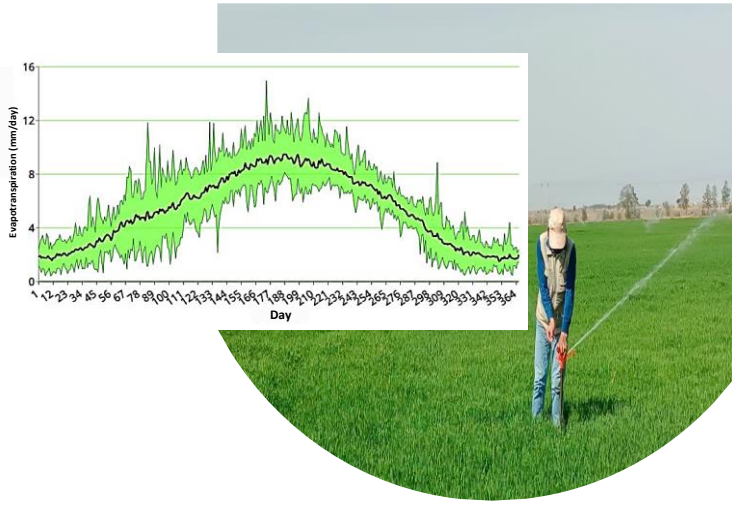
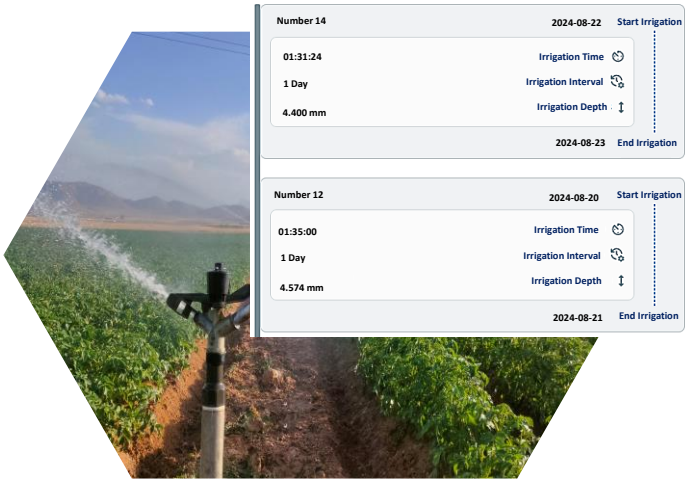
Real-time Data

Optimum irrigation management is strongly dependent on the complex interactions between atmospheric and soil conditions. The BabaHeider platform offers precise information by integrating processed satellite data with field sensor data, providing insights into the actual needs of plants over the next eight days. This enables farmers to provide the exact quantity and timing of water required by the plants.





Smart Irrigation Plans

The BabaHeidar platform generates an irrigation program tailored to the specific needs of the plant, leveraging dynamic meteorological data and artificial intelligence algorithms. Through sophisticated processing, the program optimizes water delivery to minimize plant stress and maximize crop yields. This approach ensures precise calibration to the unique conditions of the farm, promoting optimal plant growth and productivity.

Wise Field Management

Effective agricultural management necessitates an understanding of future climate conditions. Decisions made without this knowledge can result in damage to crops and significant economic losses for farmers. The BabaHeider platform provides proper alerts in compliance with real-time and processed data for any specific location.

Crop Health From Space

Remote sensing technology is essential for agricultural monitoring and management, enabling crop health assessment and yield prediction. The BabaHeider platform utilizes advanced technologies and AI to facilitate precise crop production estimation as well as real-time monitoring of pests and diseases, optimizing resource allocation.

AI for Smarter Farming

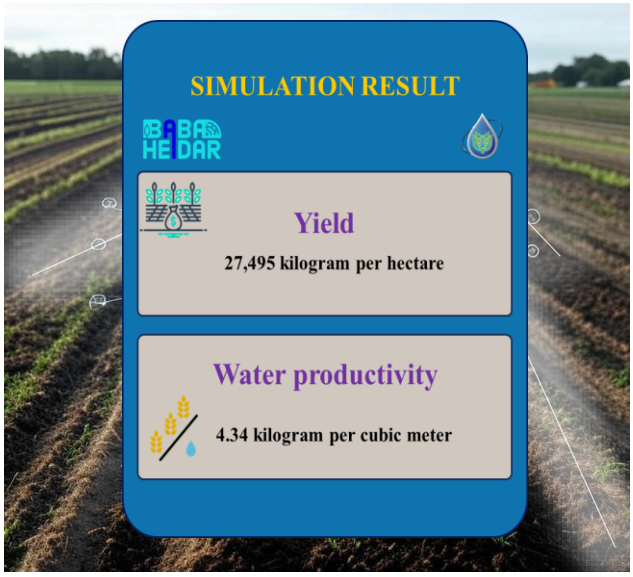
The BabaHeider platform leverages AI to enhance the accuracy of meteorological forecasts. Additionally, it utilizes machine learning algorithms and optimization techniques to provide farm-specific management recommendations for agriculture and irrigation, tailored to individual farm conditions. Farmers and agricultural managers can now make informed decisions to optimize crop yields and resource allocation.

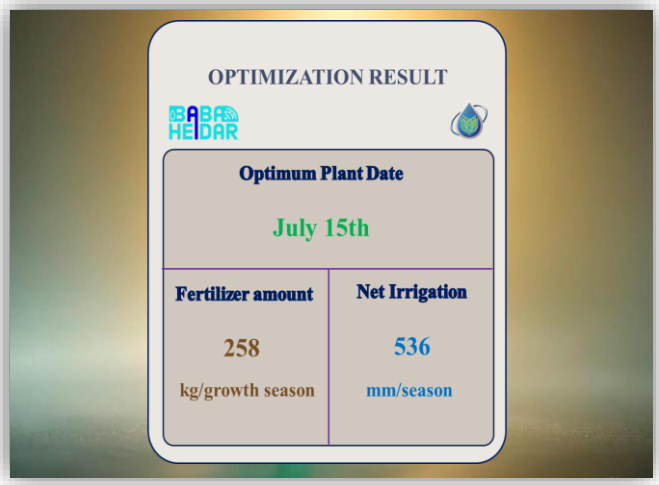
Plant Growth Simulation

Plant growth models simulate the complex interactions between weather, soil, and management factors, enabling a deeper understanding of plant growth stages and development. This approach investigates irrigation management strategies and their impact on plant yield, and facilitates yield estimation and optimization for various crops under specific field conditions.

Smart Farming Assistant

The BabaHaidar system leverages advanced artificial intelligence to offer a Smart Farming Assistant that analyzes weather data, soil characteristics, and climatic conditions to recommend the optimal planting time for farmers. This intelligent system provides comprehensive simulations of farm performance, predicting crop yields and water resource usage, enabling farmers to make informed and timely decisions. Consequently, smart resource management enhances land productivity and significantly reduces production costs.





Smart Farming: Tech for Growth

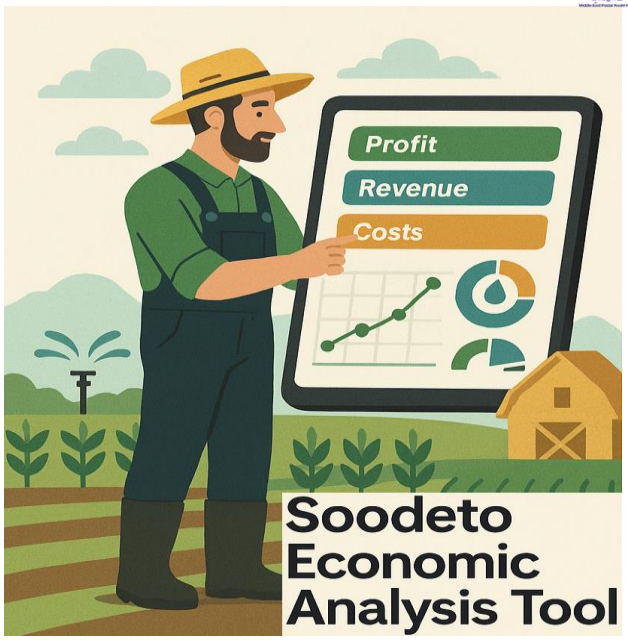
By utilizing advanced simulation and optimization models, the BabaHaidar system, through its smart farming assistant, determines the ideal planting time. It analyzes dynamic weather data and environmental conditions to provide a detailed map of farm performance, capable of optimizing water usage, reducing plant stress, and increasing crop yields. This modern innovation lays the foundation for precise and sustainable agriculture, empowering farmers to make the most efficient use of their resources.

AI-Driven Yield Boost

The BabaHaidar system integrates artificial intelligence with precise environmental data analysis to introduce a Smart Farming Assistant, helping farmers significantly increase land productivity and crop yields by selecting the optimal planting time and conditions. Farmers can manage production more precisely and achieve sustainable growth.

Soodeto: Boosting Farm Profits

The BabaHaidar platform has taken a significant step toward enhancing profitability and economic efficiency in agriculture by introducing the "Soodeto" economic analysis tool. This tool enables farmers to accurately assess profit, revenue, and production costs based on real farm data. By analyzing the economic efficiency of water usage, it provides clear insights into the impact of management decisions on profitability, paving the way for optimized decision-making. As a result, farmers can invest with greater confidence and reduce financial risks.



Soodeto: Farm Economics

"Soodeto" is an intelligent tool for evaluating the economic aspects of agricultural activities. By inputting data such as crop type, costs, and performance, farmers can obtain detailed analyses of net profit, revenue, and water efficiency. This tool supports informed decision-making and boosts the economic returns of the farm. Through these analyses, economic weaknesses are identified, and practical solutions for improvement are provided.

Analyze Profit Gains

With the "Soodeto" tool, farmers can graphically visualize the impact of management decisions—such as optimizing irrigation or adjusting costs—on profit, revenue, and farm efficiency. By focusing on the economic efficiency of water usage, this tool takes an effective step toward sustainable and profitable agriculture. Access to this data helps farmers achieve more precise pricing in competitive markets.