AI based Rice Pest PhenoForecasting Portal (http://www.iirricepest.org/)

This Portal is an advanced web-based decision support tool developed to help rice farmers and agricultural stakeholders manage pest outbreaks more effectively. The portal provides a real-time forecast of major rice pest phenology, including pests like the brown planthopper and leaf folders. It integrates weather data, pest biology models, and crop phenology to predict pest emergence and population dynamics across different rice-growing regions.

It provides information about rice insect pests, diseases, weeds and nutrient deficiencies along with details of their identification and IPM strategies. It has historical and predicted weather databases.

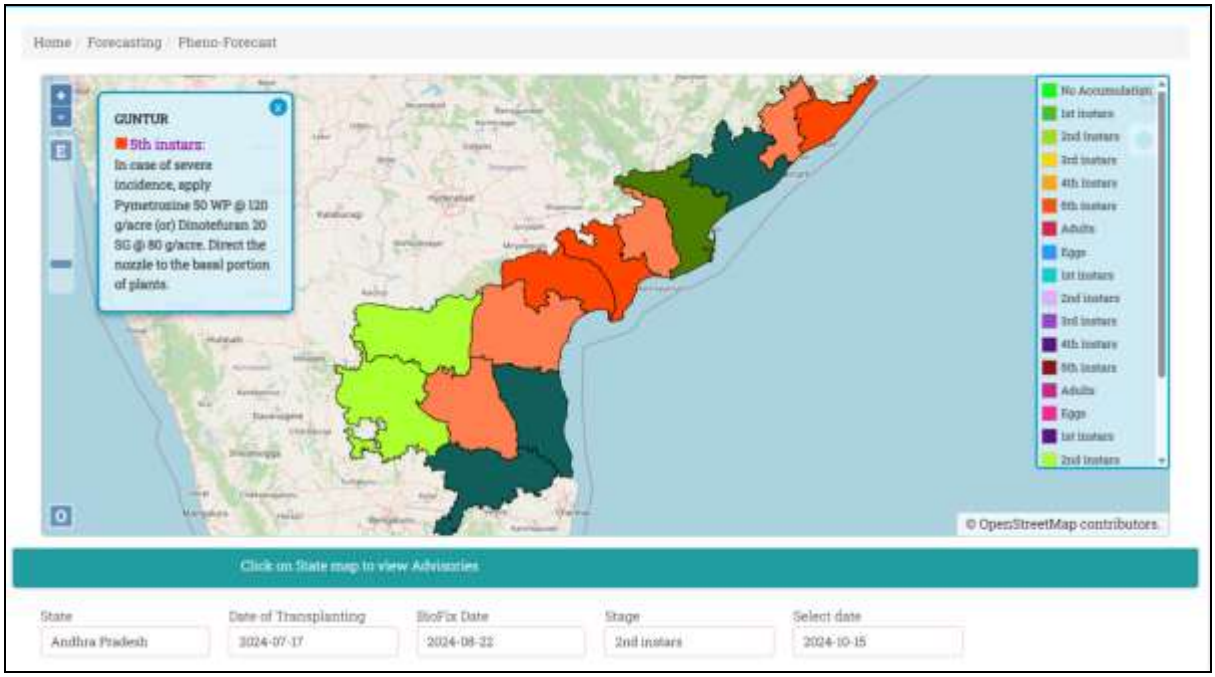
This tool supports informed pest management decisions, helping to reduce unnecessary pesticide use and minimize crop losses. By offering timely alerts and spatial maps of pest risks, it aids extension workers, researchers, and policymakers in planning targeted interventions. The platform is particularly valuable in the context of climate change, as it adapts forecasts to localized weather patterns.

Unlike traditional pest control approaches, this technology combines real-time climate data, pest biology, pest phenology and crop growth modeling to offer predictive, rather than reactive, pest management. Its region-specific risk maps and user-friendly interface distinguish it from standard monitoring methods.

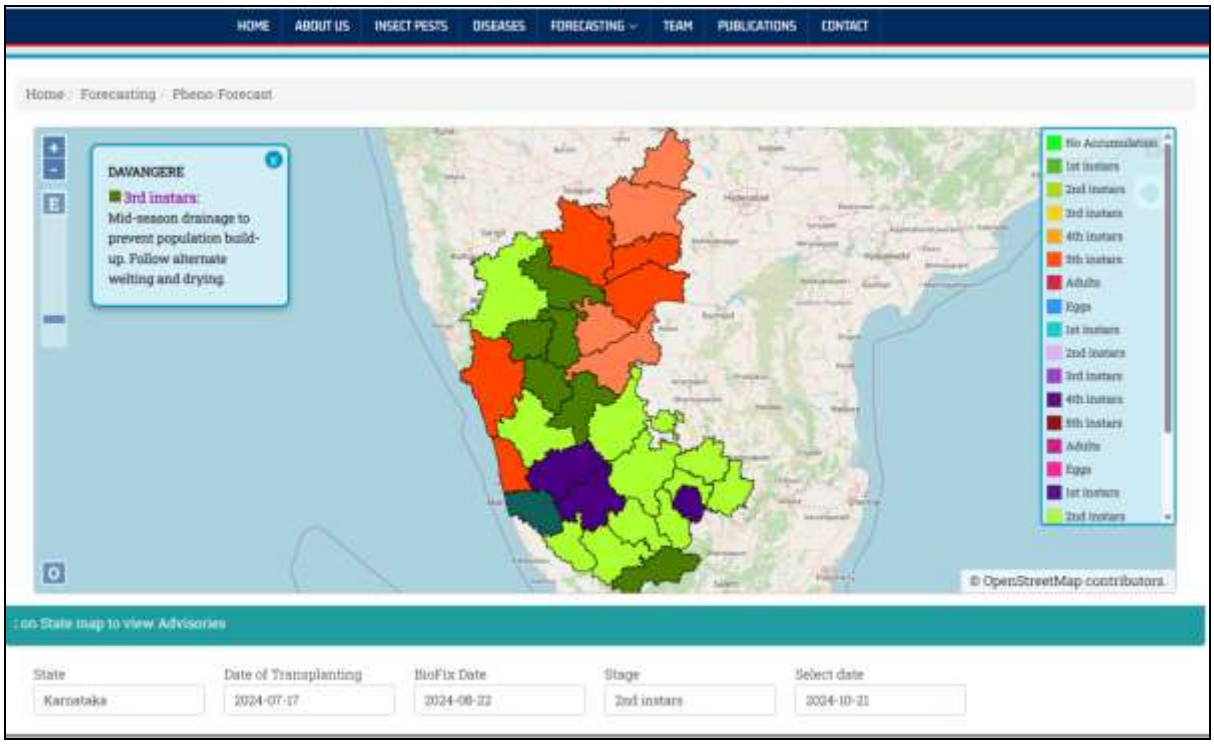
Overall, the Rice Pest Pheno Forecasting Portal enhances sustainable rice production through science-driven pest forecasting and early warning systems.

Screenshots Rice Pest Pheno Forecasting Portal

Home Page- Rice Pest Pheno Forecasting Portal



Pheno-Forecast of major pest, BPH, Andhra Pradesh- Rice Pest Pheno Forecasting Portal



Advisories based on the BioFix date and forecast of different stages of BPH-Karnataka State - Rice Pest Pheno Forecasting Portal