Next Generation Technology (NGT) forecasting pests and diseases

Information and Communication Technology (ICT) and internet of thinking (IoT) based intelligent pest and disease forewarning system for rice, pigeonpea and grape is an innovative system for providing forewarning on pests and diseases. It aims at improving farm productivity through better crop management (www.ngtforewarningpd.com). In this web portal, aims to predict the occurrence of pests and diseases based on microclimatic parameters generated by automated weather station (AWS) data. This pest and disease forewarning information and appropriate crop management practices will be disseminated to the farmers using electronic media through short message service (SMS) and mobile application. In this way, both livelihood security and environmental security are achieved.

➢ AWS system monitors all the critical parameters 365 days 24 hrs a day from the farm and opting data to cloud server and later saved in UAS, Bangalore local server.

➢ The data is used for analysis by the scientists and research team at UAS, Bangalore, to develop statistical and mathematical predictive models for agricultural pest prediction.

➢ The system would calculate various parameters using a defined model developed by the scientists on the data received.

➢ The build-in threshold for each pest of rice, pigeonpea and grape provides mobile alerts about the pest occurrence based on weather parameters and advisory to manage.

➢ The registered farmer will be notified through a short message service (SMS) in the local and English language.

Advantages:

- Monitor farms on a real-time basis and identifies problem proactively
- Reduce production losses due to pest and human error
- Increase productivity and environmentally safe
- High-end analysis for optimizing environment parameters
- Alert mechanism – During any deviation in environmental parameters
- Forecasting models for rice, pigeonpea and grape pest and advisory to manage.