

# metGIS AGRO

A Decision Support System for  
Agro Meteorology



**BKC WeatherSys Pvt. Ltd.**

An ISO 9001:2008 Certified Company

Formerly known as BK Consimpex

H-135, Sector 63, Noida, UP 201307, India

T: +91 129 4632514, 515 F: +91 120 2427869, 4632511

E: [weather@weathersysbkc.com](mailto:weather@weathersysbkc.com), [www.weathersysbkc.com](http://www.weathersysbkc.com)

## metGIS AGRO

is a decision support system designed to simplify management, analysis and visualization of agricultural meteorological data. This proprietary platform is a proven technology developed through over 10 years of experience handling complex meteorological data for organizations like India Meteorology Department and The Indian Air Force with user inputs from the Indian Agricultural Research Institute.

### metGIS AGRO

Empowers an agro meteorologist to access data from a variety of sources and formats, provides a complete tool set for data display, manipulation, analysis and image processing, and allows for automated delivery of agro-met advisories and bulletins via text messages and e-mails.

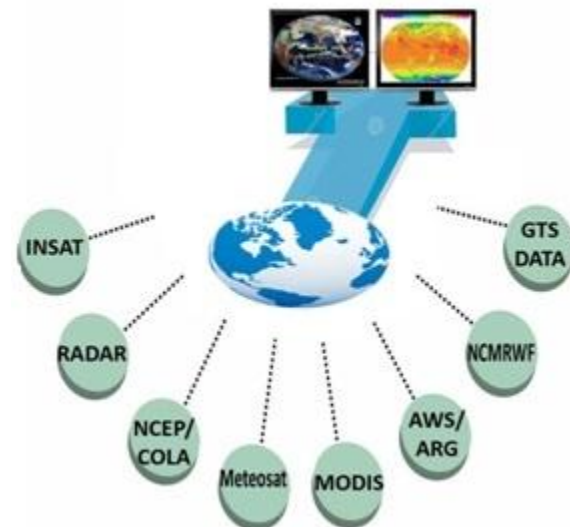
## Key Features

- @ In built GIS Display.
- @ Automated Ingest & Archival of variety of data like AWS data, satellite images (INSAT, KALPANA, METEOSAT), radar data, NWP forecasts (NCEP, NCMRWF) in real time.
- @ Complete tool set for Data Analysis and Visualization.
- @ Crop Disease and Pest Forecasting Algorithms
- @ Automated Report Generation.
- @ Automated Advisory Delivery

## Data Sources

metGIS can be configured to access multiple data sources. Inbuilt decoders and schedulers allow for automated ingestion and formatting of data. Data sources are but not limited to:

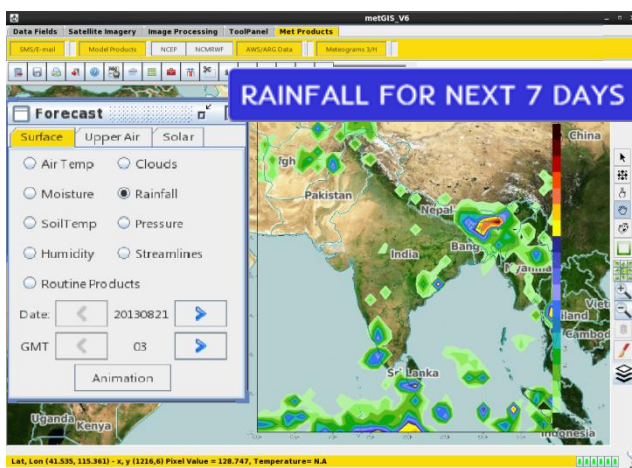
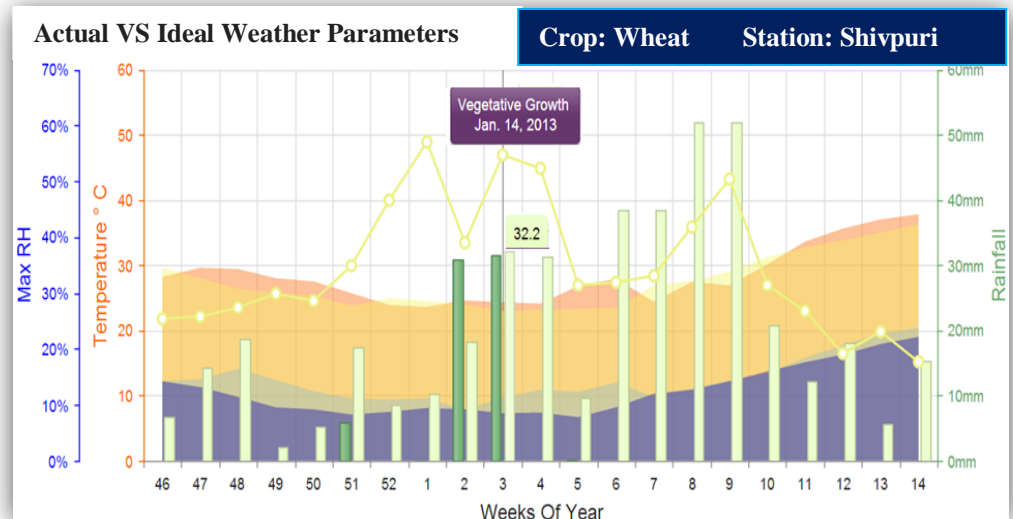
- @ AWS/ARG data from field stations, national networks.
- @ GTS data consisting of Synop, Upper Air, Ship, Buoys, METARS, TAFS.
- @ Model Forecasts (NCEP, NCMRWF)
- @ HDF 4 & 5 data handling for satellite images.
- @ Satellite imagery (Kalpana, METEOSAT), MODIS, IR, visible, and colour composite sector images.
- @ Radar images and reflectivity.
- @ Grib 1 & 2 data decoding, plotting and contouring.



## FORECASTING, VISUALIZATION AND ANALYSIS TOOLS

metGIS AGRO allows for rich image manipulation and statistical tools for data mining and display, interface for adding crop algorithms, GIS maps with options for backgrounds and projections included.

- ④ Display of AWS data (T, RH, Wind, Pressure, Cloud cover or sunshine, radiation, ET, Soil Moisture, Soil T), NWP models, satellite images together or separately in layers in WMO defined formats.
- ④ Isolines and contours, color shading, objective analysis, time series and overlay of satellite images.
- ④ Rich image manipulation and statistical tools for innovative data mining and display.
- ④ Crop Calendars and an interface and library of algorithms for crop and disease forecasting.
- ④ Vertical cross section and time section charts.
- ④ Advanced Image processing tools.
- ④ Cloud features (cloud contouring and extraction of clouds).



## Products

- ④ Agro-metograms/graphical charts of current & forecast (7 days) weather, radiation, soil moisture, soil temperature, ET.
- ④ PowerPoint presentations, bulletins and editable draft forecast for automated dissemination via email or text messages.
- ④ GIS-based Early Warning System for Crops and Disease

## metGIS AGRO is Available in Three Versions:

### metGIS AGRO BASIC

- Ⓢ User input of AWS/Meteorology data.
  - Ⓢ GIS features.
  - Ⓢ Data plotting, visualization, and analysis, including Statistical analysis tools.
- \*Desktop Stand alone Application.

### metGIS AGRO AUTO

- Ⓢ All features of metGIS AGRO Basic.
  - Ⓢ Automated ingestion from any data source (eg. NICRA, IMD, AWS/ARG from AgroMet Observatories, field data) for India. Configurable to Local Data Sources.
  - Ⓢ Automated download of satellite images (INSAT, METEOSAT).
  - Ⓢ Advanced image processing and visualization tools.
  - Ⓢ Co-location of images and data on GIS map.
- \*Requires high speed internet connectivity.

### metGIS AGRO ADVANCED

- Ⓢ All features of metGIS AGRO Auto.
  - Ⓢ Automated ingestion of forecast data (NOAA, NCMRWF) and their animation and display.
  - Ⓢ Generate customized reports and bulletins in variety of formats.
  - Ⓢ Provision for multiple user workspace for development of algorithms for crop pest and disease incidence and forecasts.
  - Ⓢ Generation of activity log for researchers featuring incorporation of agronomical activities and insertion of pictures at different stages for retrospective analysis.
  - Ⓢ Automated dissemination of bulletins by email or sms.
- \*Requires specialized hardware and operating system

### About Us

BKC WeatherSys Pvt. Ltd. Is an advanced technology company specializing in solutions for meteorology and environmental monitoring.

Our mission is to bring cutting-edge technologies to industries affected by weather. Our turnkey technology solutions are used by the meteorology, aviation, agriculture and solar energy sectors.

### Our Clients

Our clients span the globe and include India Meteorology Department (IMD), Indian Space Research Organization (ISRO), the Indian Air Force, Indian Army, Indian Navy, National Aeronautics and Space Administration (NASA, USA) and the National Oceanic and Atmospheric administration (NOAA, USA). We also work with universities and research organizations.