ag

iMETOS®ag the internet weather station for disease prediction and evapotranspiration monitoring
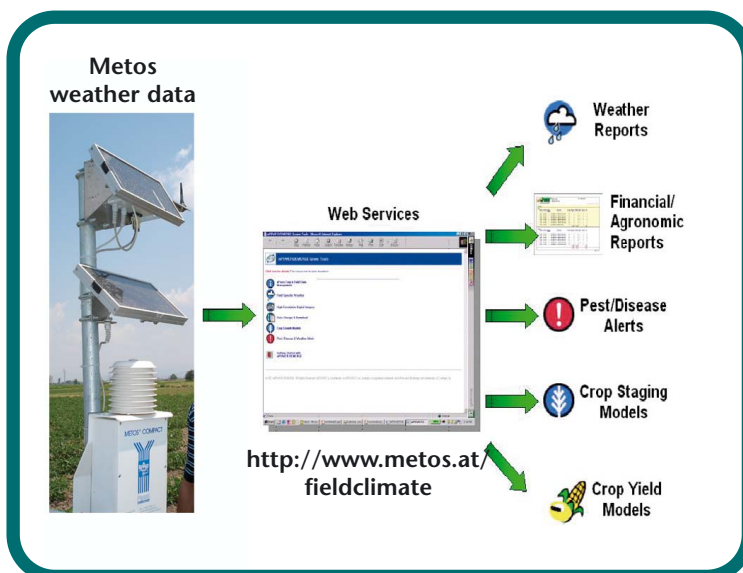

Real time data via internet for

- **Irrigation management**
- **Disease forecasting**
- **Frost warning**
- **Work planning and logistics**
- **Local micro climate monitoring**

All relevant agriculture weather data are measured permanently by iMETOS®ag and sent to the internet climate data base every two hours.

The iMETOS® ag station is powered by rechargeable batteries and a solar panel, therefore no changing or external charging of batteries is required. iMETOS® ag only needs a valid GPRS contract with sufficient good GSM coverage in the area and a deactivated SIM lock to be operational.

iMETOS® ag reports its data every two hours to the internet climate data base of Pessl Instruments GmbH at http://www.metos.at/fieldclimate.

Metos weather data

Web Services

http://www.metos.at/ fieldclimate

Weather Reports

Financial/ Agronomic Reports

Pest/Disease Alerts

Crop Staging Models

Crop Yield Models

Your internet browser and your log in password to the site http://www.metos.at/fieldclimate will get you online to data, reports and graphs logged in your own orchards or fields. On this site there is also an area reserved where you can input and change the thresholds (based on phenological progress) and telephone numbers (men on duty) to be used in frost warning and/or stress warning for evaporative cooling.

Turning Information into Profits

Pessl Instruments

iMETOS® (sidebar)

New Product Launch – Preliminary Information – Available February 2005 (sidebar)

Don't leave your crop unattended - iMETOS® ag monitors your field data day and night.

iMETOS ag is available with the following sensors and options:

IMT 100 with temperature and relative humidity: This model is specifically designed for all potato growers interested in having Smith Periods calculated for their fields, for all interested in growing degree days, and temperature based pest models.

The temperature measured in your fields allows you to calculate degree day accumulations more accurately. An important feature is also the temperature during sunrise and sunset – available in real time on your finger tips by logging in at: http://www.metos.at/fieldclimate.html

IMT 150 with temperature, relative humidity, global radiation, rainfall: For sites with low to moderate wind speeds, this model offers a cost effective solution way to estimate of the daily evapotranspiration rates on http://www.metos.at/fieldclimate.html

IMT 200 with temperature, relative humidity, leaf wetness and rainfall:
This model is the preferred choice to be used for our disease forecasting models available on http://www.metos.at/fieldclimate.html .

IMT 250 with temperature, relative humidity, leaf wetness, rainfall and global radiation: For areas with low to moderate wind speeds, this model works with most of our disease models and is a cost effective choice get a good estimate of daily evapotranspiration rates on http://www.metos.at/fieldclimate.html

IMT 300 with temperature, relative humidity, leaf wetness, rainfall, global radiation and wind speed: These sensors allow the most accurate calculation of site specific evapotranspiration rates and run most of our disease models via log in to: http://www.metos.at/fieldclimate.html
Optional soil temperature: All corn growers know about the importance of soil temperature for the early development of corn seedlings. Soil temperature reporting gives you a better understanding of best seeding dates for susceptible corn varieties. This sensor helps you to estimate nitrogen-minera-

lization. Soil temperature is needed to calculate the disease models available for turf on http://www.metos.at/fieldclimate.html

Optional wet bulb temperature: For frost warning and evaporative cooling by SMS
Optional wind direction and optional barometric pressure sensors for all recommended for all customers requiring reports on these sensors data on http://www.metos.at/fieldclimate.html

Services offered at http://www.metos.at/fieldclimate.html:
View your field climate data in tables and graphs. Download these data into excel and access sheets or other spread sheets and data base programs. See your own daily evapotranspiration and calculate crop specific soil water balances in real time. Calculate your own field degree day model as well as sunrise and sunset for pest prediction in real time. Calculate growing degree days for corn seed production. See your own disease prediction model results in real time for:

- Vine grape: Downy mildew, powdery mildew, botrytis, black rot
- Apple: Scab, fire blight.
- Pear: Scab, Brown spot
- Stone fruit: Monilia, Pseudomonas, Shut hole disease
- Strawberry: Powdery Mildew, Botrytis cinerea
- Cucumber: Downy mildew
- Tomato: Early blight, late blight, Botrytis cinerea
- Potato: Early blight, late blight
- Onion: Downy mildew, Botrytis squamosa
- Lettuce: Downy mildew
- Wheat: Rust, Septoria, Fusarium
- Canola, sun flower, pepper: Sclerotinia
- Soybean: Rust
- Sugar beet: Cercospora
- Turf: Pythium blight, brown patch, dollar spot, fusarium

Technical Data of iMETOS ag :

Dimensions without sensors: 54cm x 18 cm x 18 cm
Weight without sensors: 1.2 kg
Measuring interval: 5 minutes
Logging interval: 60 minutes
Internet contact interval: 120 minutes 6oo to 22oo
Temperature sensor: SMT 160-30
Temperature sensor resolution: 0.1°C
Temperature sensor accuracy: ±0.5°C
Relative humidity sensor: HC 103
Relative humidity sensor resolution: 1%
Relative humidity accuracy 25% - 90%: 3%
Rain gauge resolution: 0.2mm
Rain gauge max rain reporting 12 mm/min

Rain gage accuracy: ±5%
Leaf wetness sensor principle: Resistance inside Filter paper
Global radiation sensor range: 0 – 2000 W/m_
Global radiation sensor resolution: 1 W/m_
Global radiation sensor response area: 320 nm – 1,100 nm
Global radiation sensor accuracy: ± 5%
Wind speed Range: 0 - 40 ms-1
Wind speed Gust Survival: 60 ms-1
Wind speed Anemometer Threshold: 1.4 m/s
Wind direction Azimuth: 355°
Wind Vane Threshold: 0.8 ms-1 (10 degree)
Barometer Range: 0 - 1103 mbar
Barometer accuracy: 0.5% of full span