## Web based IPM system for Japanese pear diseases in Japan **III.** Weather data acquisition system to estimate leaf wetness duration and scab infection severity Tohru OHTANI<sup>(2)</sup>, Koji SUGAHARA<sup>(1)</sup>, Kei TANAKA<sup>(1)</sup>,

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Weather data acquisition system in a Japanese pear (nashi) órchard

Wetness sensors cylindrical type



Weather

sensors

Weather data collected from the datalogger is automatically transferred to the weather database server once a day, using e-mail outside of over a PHS-based dial-up Internet link. the canopy These data can be utilized on WWW, and

Laptop PC connected to the datalogger

accessed by the various models through Metbroker.

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A procedure for leaf wetness estimation from rainfall and humidity

This procedure can be used to estimate leaf wetness where wetness sensor s are not available.

Leaf wetness estimation procedure Estimation factors

- 1. It is wet if it has rained in the preceding 3 hours 2. It remains wet until 6:00 if it has rained during the night (21:00 to 6:00).
- 2A It is wet any time relative humidity (RH) 90%. 2B It is wet if RH 90% only between 0:00 and 6:00.

Period	Factors
Apr.1-May.15	Factor 1 or 2A
May.16-Jun.30	Factor 1 or 2B
Jul.1 -	Factor 1



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PHS card

Portable temperature and humidity datalogger in a commercial orchard



Estimation of nashi scab infection severity by Mills 'model and Duthie 's model

Displays of a demo applet accessing Metbroker (Weather data in our orchard)

Datalogger, CR10X (Campbell Scientific, Inc.)

