Integrated Pest Management Modules

Integrated Pest Management Modules (IPM) link your weather data to actual pest risk, giving you a powerful new tool in protecting your crops from pest damage. These add-on modules generate stepped risk levels to warn you when conditions are most susceptible to pest development. For full use of all the modules, we recommend:

- · Vantage Pro2 or Pro2 Plus Weather Station
- Wireless Leaf & Soil Moisture/Temperature Station (without sensors)
- Leaf Wetness Sensor
- WeatherLink for Windows
- Vantage Connect for remote access to your weather data

While each software comes loaded with pest models for all known pests (including diseases, insects and mites), you can completely customize your IPM software to track the pests specific to your area. That data is transformed into a color-coded spreadsheet, illustrating the highest risk potentials in red. Because you use real-time data from your own vineyard or orchard weather sensors, the software's updated pest development algorithms will provide you with the most accurate, crop-specific risk assessment available. For use with all WeatherLink models (Mac excluded).

Provides a picture of the pest to help you

easily identify it when you are in the field.

6571 Integrated Pest Management Module for Grapes 6572 Integrated Pest Management Module for Apples & Pears 6573 Integrated Pest Management Module for Stone Fruits 6574 Integrated Pest Management Module for Nut Trees



PEST RISK ASSESSMENT SUMMARY DATA PANE Color-coded to identify which pests currently pose Displays last 6 weeks of a a danger to crops and sorted by severity level. particular pest's activity. a. _ | X Downy Mildew of Grape Pest Risk Assessment Summary 100 Pest Name Current Stage Degree Days Level Light Brown Apple Moth of Grape Larva - 34% done 491.78 (4) High Variegated Cutworm of Grape Lab Studies 507.34 (4) High Larva - 53% done Orange Tortrix of Grape 575.97 (4) High Larva - 45% done Redbanded Leafroller of Grape 508.71 (4) High First Emergence of Larva Grape Phylloxera 579.34 (4) High Second Generation 50 Western Grapeleaf Skeletonizer 405.61 (4) High Larva - 12% done European Grapevine Moth 353,87 (4) High Larva - 49% done Glassy-winged Sharpshooter of Grape 266 65 (4) High Egg Hatch - 8% done Grape Berry Moth Pennsylvania (4) High Larva - 76% done Phomopsis Cane & Leaf Spot of Grape Catawba 31.67 (3) Moderate Phomopsis Cane & Leaf Spot of Grape Sevval (3) Moderate 33.26 (3) Moderate First Generation Crawlers Grape Scale 353.87 Japanese Reetle of Grane 353.87 (2) Low Egg Hatch - 54% done 06/18/11 Day Grape Root Borer 353.87 (2) Low Larva - 18% done Anthracnose of Grape 3.67 (1) None Hourly Table C Daily Table © Last 6-week Plot Export Grape Berry Moth Arkansas 353.87 (1) None First Generation of Eggs European Red Mite of Grape Males 324.11 (1) None Downy Mildew of Grape Generation Time 411.85 (1) None Egg - 82% done Downy mildew, caused by the obligate Omnivorous Leafroller of Grape parasite Plasmopara viticola, is European Red Mite of Grape Females 324.11 (1) None Generation Time potentially one of the most destructive diseases of grape in the world. The Pacific Spider Mite of Grape 300.84 (1) None Generation Time disease is especially serious in climates European Corn Borer of Grape 353.87 (1) None Larva - 94% done with abundant rainfall, high relative humidity, and prolonged periods of Eastern Grape Leafhopper 353.87 (1) None Eaa - 95% done wetness on leaves and fruits. The Potato Leafhopper of Grape Field Studies (1) None Egg - 84% done 288 34 fungus infects all parts of the grape vine. It causes losses by killing leaf Potato Leafhopper of Grape Lab Studies 288.34 (1) None Egg - 88% done tissues and defoliation. Also, it rots the ripening grapes and weakens, dwarfs, and kills the young shoots. First Powdery Mildew of Grape 0.00 (1) None Conidial Downy Mildew of Grape 0.00 (1) None symptoms are yellow circular spots with an oily appearance on the upper leaf surface. On the underside of the Twospotted Spider Mite of Grape California 273.76 (1) None Generation Time (1) None leaf face the fungus appears as a Western Grape Leafhonner 340 16 Egg - 83% done se, white, cottony gro 20.96 Botrytis Bunch Rot of Grape (1) No The young berries Black Rot of Grape 4.00 (1) N PEST DESCRIPTION PANE tible. They appear **PEST IMAGE** covered with a dow

Learn more about the pests that can

potentially damage your crop.

REQUIRES: Vantage Pro2 or Vantage Pro2 Plus with a Wireless Leaf & Soil Moisture/Temperature Station and Leaf Wetness Sensor; and WeatherLink for Windows (any model), version 5.6 or later. Windows XP SP3 or above. Compatible with Weather Envoy and Envoy8X.

IPM for Grapes



DISEASES

- Anthracnose
- Black Rot
- · Botrytis Bunch Rot
- Downy Mildew
- Phomopsis Cane & Leaf Spot
- · Powdery Mildew

PREDICTS 21 INSECTS AND MITES:

- Eastern Grape Leafhopper
- European
 Corn Borer
- European
 Grapevine Moth

· European Red Mite

- Glassy-winged Sharpshooter
- Grape Berry Moth
- · Grape Phylloxera
- · Grape Root Borer
- · Grape Scale
- · Japanese Beetle
- Light Brown Apple Moth
- Omnivorous Leafroller
- Orange Tortrix
- Pacific Spider Mite
- Potato Leafhopper
- Redbanded Leafroller
- Twospotted Spider Mite
- Variegated Cutworm
- Vine Mealybug
- Western Grape Leafhopper
- Western Grapeleaf Skeletonizer

IPM for Apples & Pears



DISEASES AND MODELS EMPLOYED

- 4 Apple Scab Models (Ascospore Maturity, Modified Mills Table & Revised Mills Table, A-Scab)
- 3 Fire Blight Models (CougarBlight, Maryblyt, Billings Integrated System)
- 2 Sooty Blotch & Flyspeck Models (Brown & Sutton, Cool Climate)
- Powdery Mildew of Apple
- Brown Spot of Pear
- Cedar Apple Rust
- Black Rot of Apple (Leaf & Fruit)
- Phenology Model of Apple Tree

PREDICTS 22 INSECTS AND MITES:

- Apple Maggot
- Codling Moth
- · European Red Mite
- Fruittree Leafroller
- Green Apple Aphid
- Japanese Beetle
- Light Brown Apple Moth
- Lygus Bug
- Mediterranean Fruit Fly
- Obliquebanded Leafroller
- Omnivorous
 Leafroller
- Orange Tortrix
- Oriental Fruit Moth
- Pacific Spider Mite
- · Pandemis Leafroller
- Potato Leafhopper
- Redbanded Leafroller
- San Jose Scale
- Spotted Tentiform Leafminer
- Tufted Apple Bud Moth
- Twospotted Spider Mite
- White Apple Leafhopper

Add-on module for WeatherLink

Agricultural/Turf Management Software Module

Optional software module adds specialized reports for farmers, growers and turf managers with user-defined growing season and 24-hour period. Software reports:

- Evapotranspiration
- · Chilling requirements
- · Leaf wetness and soil temperature hours
- · Growing degree-days
- · Temperature-humidity hours
- Crop water management (with irrigation values and user-entered K-factor profiles)

For use with all WeatherLink models (except Mac version). Some reports require the use of optional sensors (e.g. temperature probes, leaf wetness sensor, etc.). Evapotranspiration reports require data from a solar radiation sensor.

6511 Agricultural/Turf Management Module



IPM for Stone Fruits



DISEASES AND MODELS EMPLOYED

- American
 Brown Rot
- · Cherry Leaf Spot
- European
 Brown Rot
- · Peach Leaf Curl
- Powdery Mildew of Cherry
- Prune Rust
- Shot Hole of Cherry and Peach
- Phenology Model of Peach, Plum & Prune, Nectarine, Apricot and Sweet Cherry Trees

PREDICTS 18 INSECTS AND MITES:

- Codling Moth
- · European Red Mite
- · Fruittree Leafroller
- Green Peach Aphid
- · Japanese Beetle
- Lygus Bug
- Obliquebanded Leafroller
- Omnivorous Leafroller
- Orange Tortrix
- Oriental Fruit Moth
- Pacific Spider Mite
- · Peach Twig Borer
- Peachtree Borer
- Plum Curculio
- Plum Fruit MothSan Jose Scale
- Twospotted Spider Mite
- Western Cherry Fruit Fly

IPM for Nut Trees



DISEASES PREDICTED & MODELS EMPLOYED

- Alternaria Leaf Spot of Almond
- Anthracnose of Almond
- Panicle and Shoot Blight of Pistachio
- Pecan ScabWalnut Blight

INSECTS & MITES PREDICTED

- Codling Moth
- European Red Mite
- Fruittree Leafroller
- Lygus Bug
- Navel Orangeworm
- Obliquebanded Leafroller
- Oriental Fruit Moth
- Pacific Spider Mite
- Peach Twig Borer
- Peachtree Borer
- San Jose ScaleTwospotted
- Spider Mite

 Walnut Husk Fly