iMETOS CropVIEW®

YOUR FIELD CIRCUMSTANCES, CROP CONDITION AND FRUIT GROWTH UNDER FULL REMOTE CONTROL IN REAL-TIME – USING STATE OF THE ART OPTICAL CAMERA SYSTEMS SUPPORTED WITH ARTIFICIAL INTELLIGENCE SOFTWARE.

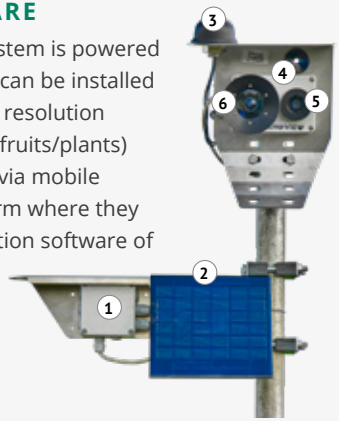
***Remote fruit monitoring** – AI system for fruit measurement*

***Remote field monitoring** – check growth of your crop*

***Remote crop monitoring** – check phenophase of your crop*

HARDWARE AND SOFTWARE

The iMETOS CropVIEW® camera system is powered by a solar panel and a battery and can be installed wherever in the field needed. High resolution images of the monitored area (f.e. fruits/plants) taken by a 10 MP camera are sent via mobile network to the FieldClimate platform where they are analyzed with automatic detection software of fruits (for apples only).



1. Control unit; 2. Power supply (solar panel and battery); 3. Dual antenna (GPS/ communication); 4. Logger and modem; 5. Zoom lens; 6. Wide angle lens.

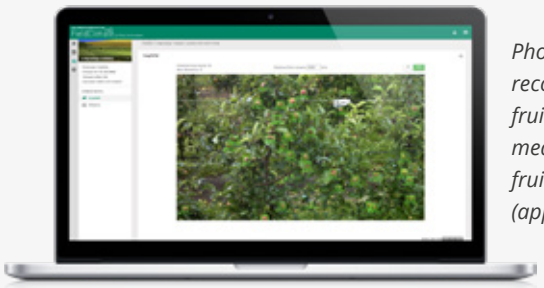


Photo with recognized fruits and measurements of fruit diameters (apple only).

HOW MANY STATIONS DO I NEED?

How many stations should be installed depends on the field conditions and farm structure. It can be one device per growing site or more if multiple crop varieties need to be monitored.

iMETOS CropVIEW® VARIATIONS

iMETOS CropVIEW® DUAL

Equipped with two 10 MP cameras – panoramic and zoom.

iMETOS CropVIEW® PANORAMA

Equipped with one 10 MP camera – panoramic.

iMETOS CropVIEW® ZOOM

Equipped with one 10 MP camera – zoom.

TECHNICAL SPECIFICATIONS

Housing	Power supply and sensor support box: 41 cm L x 13 cm W x 7 cm H
Camera module	Stainless steel base with IP65 box 27 cm L x 17 cm W x 9 cm H, weight: 1.5 kg
Power supply	6 V lead acid 4.5Ah battery with solar panel
Model/Type	Cortex M4 processor module with integrated Communication model for UMTS/LTE operation
Camera and optics	MT9J003 10 Mega Pixel 2/3“ CMOS sensors - Optics DSL377A-650-F2.8 2/3“ Lens with 2.5 mm Focal length and DSL901J-650-F3.0 2/3“ Lens with12 mm Focal Length

MORE INFO:
metos.at/cropview

iMETOS® iSCOUT & iMETOS® CropVIEW

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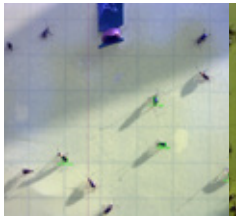
iMETOS iSCOUT®

ALL INHABITANTS OF YOUR FIELD UNDER FULL CONTROL – USING STATE OF THE ART OPTICAL CAMERA SYSTEMS SUPPORTED WITH ARTIFICIAL INTELLIGENCE SOFTWARE FOR DETECTION OF BROAD SPECTRUM OF INSECT SPECIES.

TIME-LAPSE PHOTOS



At the beginning of the season – June 21, 2018

In the middle of the season – July 15, 2018

At the end of season – August 25, 2018

Data analysis – graph based on collected data

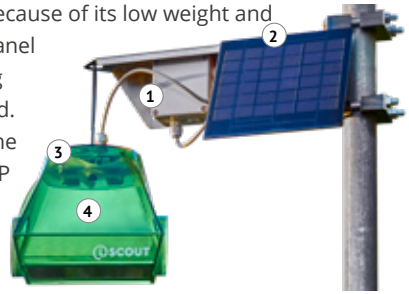
REMOTE MONITORING OF INSECT PRESSURE SAVES TIME AND OPTIMIZES USE OF RESOURCES – PRODUCING MORE WITH LESS.

HOW MANY STATIONS TO INSTALL?

The number of stations needed depends on the size of the field and the targeted insect. The distribution of insects within a field is often not homogeneous. Immigrated insects from overwintering sites are often more concentrated on the borders of the field, whereas insects hatched from the soil are clustered within them. We suggest using multiple traps in large field areas and when different pests are monitored on the same location. The iMETOS iSCOUT® can be used to monitor the first occurrence of pest species on the field site and to implement IPM strategies when needed. It can help us decide when we should start with mass trapping too.

HARDWARE

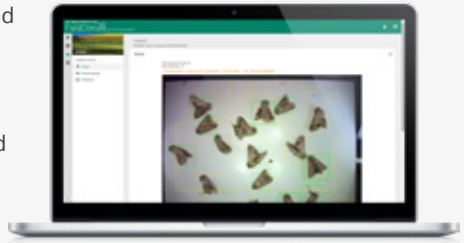
The iMETOS iSCOUT® is an insect trap with integrated electronics, monitoring a sticky plate. Because of its low weight and being powered by a solar panel and a battery it can be hung wherever in the field needed. High resolution images of the sticky plate taken by a 10 MP camera are sent via mobile network to the FieldClimate platform where they are analyzed with AI (artificial intelligence) software.



1. Control unit; 2. Power supply (solar panel and battery); 3. Logger and modem; 4. Trap.

SOFTWARE

The result are photos with rectangles around the targeted insect, as well as summarized data of the daily count, sum of targets and development of insect population during the season. Insect control is real-time and the collected data can be used for further analysis. The results are visible on web and mobile devices.



iMETOS iSCOUT® VARIATIONS

iMETOS iSCOUT® PHEROMONE

Designed and developed to catch insects with insect specific pheromone lure (**codling moth, european grape berry moth, tomato leafminer and many other species**). It includes a metal plate on which sticky paper and a pheromone lure are applied.

iMETOS iSCOUT® FRUIT FLY

Designed and developed to catch fruit flies (**spotted wing *drosophila*, olive fruit fly, mediterranean fruit fly and many other species**). It includes 3 mm nettings on entries, preventing bigger flies (house flies) to enter the trap. Feeding lure tank and metal plate with sticky papers are included. If you want to catch and monitor bigger flies, you can remove nettings.

iMETOS iSCOUT® BUG

Designed and developed to catch bugs (**marmorated stink bug and many other species**). It includes a metal plate with a hole in the middle and wings, formed like a pyramid and has closed side entries. Once the bug enters the trap, it can no longer exit.

iMETOS iSCOUT® COLOR TRAP

Designed and developed to monitor sticky traps of different colors. The device comes with high resolution camera and a holder for a sticky plate.

Catching various insects depends on the color of the plate used.

SPARE PARTS

Spare parts to turn one type of a trap to another are available (you can turn your iMETOS iSCOUT® device into different variations).

MORE INFO:
metos.at/iscout

TECHNICAL SPECIFICATIONS

Memory	1 GB
Internet connectivity	UMTS/LTE
GPS receiver	Yes
Dimensions of trap housing w/o control unit	20 cm L x 15.5 cm W x 17 cm H
Transmission interval	Max. 3 times per day (usually once a day)
Battery type	Rechargeable Lead acid battery 6V, 4.5 Ah
Solar panel dimensions	18 x 13 cm, 7.2 Volt, 333 mA
Camera	10 megapixel camera