envision

White paper

National Observatory of Athens

CULTIVATED CROP TYPE MAPS

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Transform your agriculture practices with our innovative Cultivated Crop Type Maps service. Our service combines advanced satellite data and Machine Learning techniques to classify crops accurately and validate the declared crop types by farmers. With our product, Paying Agencies and Certification Bodies can enhance their inspection processes during both the declaration and validation stages to promote sustainable agricultural practices, increase food security, and facilitate subsidy allocations. Our accurate crop classification maps are provided throughout the cultivation period, providing a powerful monitoring tool that contributes to the overall growth and development of the agricultural sector.

Experience the power of our technology and revolutionize your agriculture management with our creative solution!

KEY FEATURES:

☑ Dynamic Crop Type Maps

The service provides multiple crop type maps at a national scale throughout the cultivation period, generated by new or groups of new Sentinel acquisitions. This provides an up-to-date and accurate monitoring tool for agriculture management, allowing for optimal decision-making throughout the cultivation period.

☑ Alert Mechanism

Our advanced smart sampling algorithm uses a traffic light system to detect potential instances of false applicant declarations, even in the initial stages of the cultivation period. This helps to reduce fraud and errors in crop reporting, ensuring accurate data for subsidies and other financial programs.

☑ Supervision of Cross-Compliance

The results derived from the Cultivated Crop Type Maps service serve as the foundation for addressing Greening requirements, such as Crops Diversification, making it a vital tool for anyone seeking to optimize the monitoring of farming operations. This feature helps to ensure compliance with regulations and promote sustainable agricultural practices.
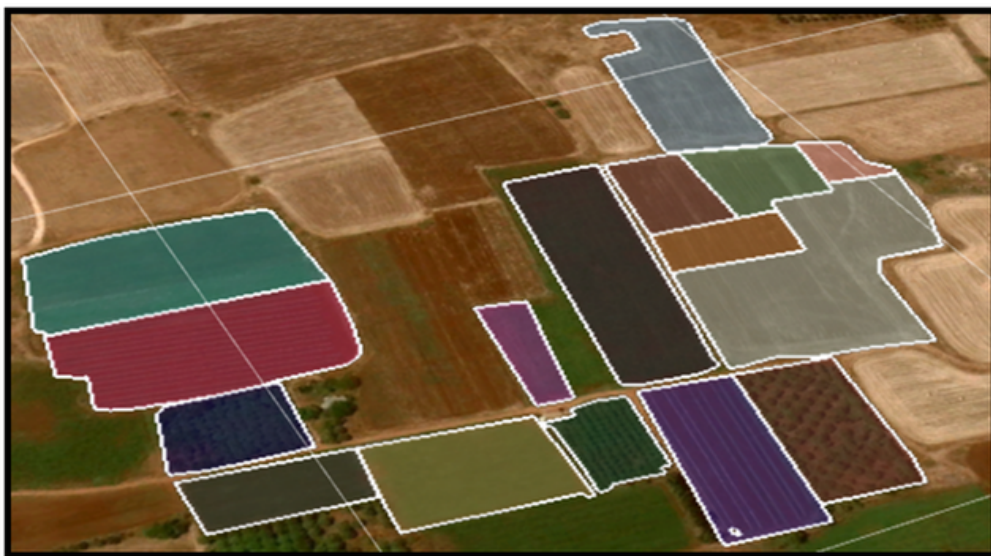
☑ Improved Inspection Processes

With accurate crop classification maps provided throughout the cultivation period, the service offers a valuable solution to Paying Agencies and Certification Bodies seeking to enhance their inspection processes.

PAS ADVANTAGES WITH CULTIVATED CROP TYPE MAPS:

☑ *Scalability*

Our system is designed to provide accurate crop classification results at any scale, from a small Area of Interest to an entire country.

☑ *Generalization Performance*

Our service provides reliable crop classification information across different regions, helping Paying Agencies to make informed decisions about agriculture management strategies. Paying Agencies can manage diverse regions with varying crops and cultivation practices.

☑ *Cloud Coverage Resilient*

Our service employs both Sentinel-1 and Sentinel-2 data to ensure higher accuracy and address the issues of extended cloud coverage and the impact of weather condition on data collection.

☑ *Cost Reduction*

Inspections can be carried out more efficiently, reducing the need for costly manual field visits. Paying Agencies can save time and resources, and focus on other critical tasks related to agriculture management.

Crops Classification Map based on declaration polygons, describing each crop category with different colors

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WHAT OUR CUSTOMER SAY:

"Cultivated Crop Type Maps has helped us identify key areas of concern regarding farmer's declarations, as well as tackle significant challenges pertaining to the natural characteristics of plots in Cyprus. Sophisticated approaches to data analytics and the adjustability of the service have allowed for increased accuracy, timely alerts, and useful guidance to CAPO for selecting and focusing on high-risk areas or crop groups. Either directly integrated or acting complementary, it definitely is a high-value product. "

CAPO - Cyprus Payment Organizations

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