



Medium Resolution Vegetation Phenology and Productivity: End-of-season date (raster 500m), Oct. 2022

The raster file is the time series of the end of the vegetation growing season. The end of the growing season time-series is based on the time series of the Plant Phenology Index (PPI) derived from the MODIS BRDF-Adjusted Reflectance product (MODIS MCD43 NBAR). The PPI index is optimized for efficient monitoring of vegetation phenology and is derived from the source MODIS data using radiative transfer solutions applied to the reflectance in visible-red and near infrared spectral domains. The end of season indicator is based on calculating the end of the vegetation growing season from the annual PPI temporal curve using the TIMESAT software for each year between and including 2000 and 2021.

The End-of-Season Date (EOSD), one of the Vegetation Phenology and Productivity (VPP) parameters, is a product of the pan-European High Resolution Vegetation Phenology and Productivity (HR-VPP) component of the Copernicus Land Monitoring Service (CLMS).

The End-of-Season Date (EOSD) marks the date when the vegetation growing season ends in the time profile of the Plant Phenology Index (PPI). The end-of-season occurs, by definition, when the PPI value reaches 15% of the season amplitude during the green-down period.

The Plant Phenology Index (PPI) is a physically based vegetation index, developed for improving the monitoring of the vegetation growth cycle. The PPI index values, with 5-day satellite revisit cycle, are first used in a function fitting to derive the PPI Seasonal Trajectories. From these Seasonal Trajectories, a suite of 13 Vegetation Phenology and Productivity (VPP) parameters are then computed and provided, for up to two seasons each year. The End-of-Season Date (EOSD) is one of the 13 parameters. The full list is available in the Product User Manual: https://land.copernicus.eu/user-corner/technical-library/clms_mrvpp_pum_d1-0.pdf

The End-of-Season Date (EOSD) time series dataset is made available as raster files with 500x 500m resolution, in ETRS89-LAEA projection corresponding to the MCD43 tiling grid, for those tiles that cover the EEA38 countries and the United Kingdom and for two seasons in each year from 2000 onwards. It is updated in the first quarter of each year.

The full on-line access to open and free data for this resource will be made available in the second half of 2024. Until then the data will be made available 'on-demand' by filling in the form at: <https://land.copernicus.eu/contact-form>

Simple

Date (Creation)	2022-06-08			
Date (Publication)	2022-10-10			
Edition	01.00			
Citation identifier	copernicus_r_3035_500_m_mrvpp-eos_p_2000-now_v01_r00			
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No information provided.

Maintenance and update frequency	Annually
GEMET - INSPIRE themes, version 1.0	<ul style="list-style-type: none"> Environmental monitoring facilities Habitats and biotopes Orthoimagery
Keywords	

Keywords	
GEMET	<ul style="list-style-type: none"> • remote sensing • land • index • vegetation • plant production • productivity • plant ecology
Spatial scope	<ul style="list-style-type: none"> • European
Temporal resolution	<ul style="list-style-type: none"> • Annually
Continents, countries, sea regions of the world.	<ul style="list-style-type: none"> • United Kingdom • EEA38 (from 2020)
Access constraints	Other restrictions
Other constraints	no limitations to public access
Use constraints	Other restrictions
Other constraints	<p>Access to data is based on a principle of full, open and free access as established by the Copernicus data and information policy Regulation (EU) No 1159/2013 of 12 July 2013. This regulation establishes registration and licensing conditions for GMES/Copernicus users.</p> <p>Free, full and open access to this data set is made on the conditions that:</p> <ol style="list-style-type: none"> 1. When distributing or communicating Copernicus dedicated data and Copernicus service information to the public, users shall inform the public of the source of that data and information. 2. Users shall make sure not to convey the impression to the public that the user's activities are officially endorsed by the Union. 3. Where that data or information has been adapted or modified, the user shall clearly state this. 4. The data remain the sole property of the European Union. Any information and data produced in the framework of the action shall be the sole property of the European Union. Any communication and publication by the beneficiary shall acknowledge that the data were produced "with funding by the European Union".
Aggregate DatasetIdentifier	copernicus_r_utm-wgs84_10_m_hrvpp-vi-qflag2_p_2017-ongoing_v01_r01
Association Type	Cross reference
Aggregate DatasetIdentifier	copernicus_r_utm-wgs84_10_m_hrvpp-vi-ndvi_p_2017-ongoing_v01_r01
Association Type	Cross reference
Aggregate DatasetIdentifier	copernicus_r_utm-wgs84_10_m_hrvpp-vi-fapar_p_2017-ongoing_v01_r01
Association Type	Cross reference
Aggregate DatasetIdentifier	copernicus_r_utm-wgs84_10_m_hrvpp-vi-lai_p_2017-ongoing_v01_r01
Association Type	Cross reference
Spatial representation type	Grid
Distance	500 m
Language of dataset	English
Character set	UTF8

Topic category

- Environment
- Imagery base maps earth cover
- Climatology, meteorology, atmosphere

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Begin date	2000-01-01		
Coordinate reference system identifier	EPSG:3035		
Distribution format	<ul style="list-style-type: none"> • GeoTIFF (1.0) 		
OnLine resource	Protocol	Linkage	Name
	WWW:LINK-1.0-http--link	https://land.copernicus.eu/user-corner/technical-library/clms_mrvpp_pum_d1-0.pdf	User manual
Hierarchy level	Dataset		

Conformance result

Title	Commission Regulation (EU) No 1089/2010 of 23 November 2010 implementing Directive 2007/2/EC of the European Parliament and of the Council as regards interoperability of spatial data sets and services
Date (Publication)	2010-12-08
Explanation	See the referenced specification
Statement	Vegetation Phenology and Productivity parameters (VPP) are based on Plant Phenology Index (PPI) seasonal trajectories and are yearly produced for two seasons using the Timesat software. One of the parameters is the end date of the vegetation growing season (End-of-Season Date - EOSD). The related PPI value and slope (rate of PPI change) for this date are available as well.

Metadata

File identifier	a3cfb2c4-156a-413c-a73b-15ebbb016557 XML
Metadata language	English
Character set	UTF8
Hierarchy level	Dataset
Date stamp	2024-04-02T13:52:18.963013Z
Metadata standard name	ISO 19115/19139
Metadata standard version	1.0
Metadata author	Electronic

Organisation name

Individual name

mail
address

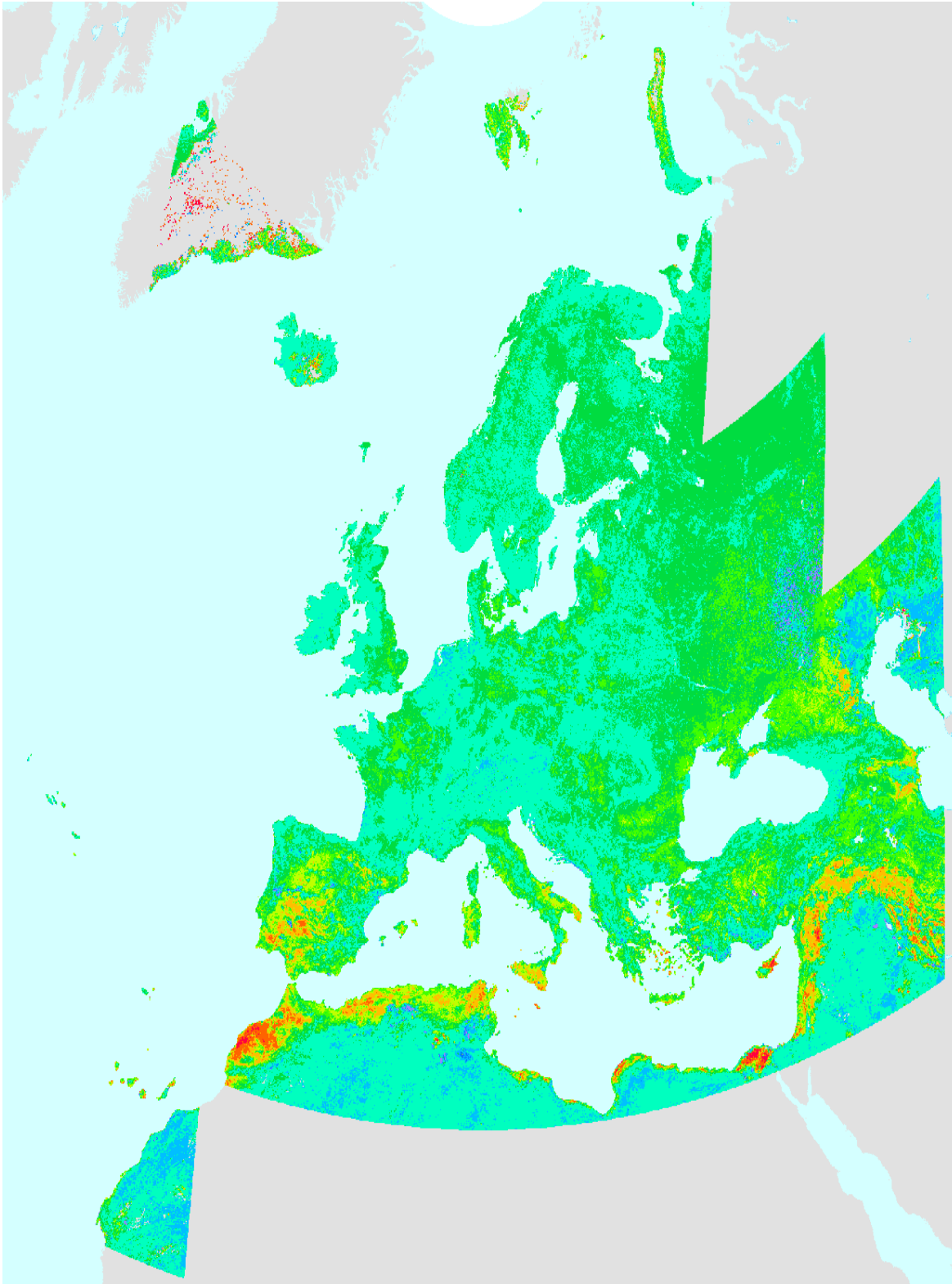
Website Role

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Point
of
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Overviews



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