



Seasonal Productivity 2017-present (raster 10 m), Europe, yearly, Sept. 2021

The Seasonal Productivity (SPROD), 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 Seasonal Productivity (SPROD), or small integral, is the growing season integral that is computed as the sum of all daily Plant Phenology Index (PPI) values between the dates of the season start (SOSD) and end (EOSD), minus their base level value.

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, which is a filtered time series with regular 10-day time step. 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 Seasonal Productivity is one of the 13 parameters.

A complementary quality indicator (QLAG) provides a confidence level, that is described in table 4 of the same manual.

The SPROD dataset is made available as raster files with 10 x 10m resolution, in UTM/WGS84 projection corresponding to the Sentinel-2 tiling grid, for those tiles that cover the EEA38 countries and the United Kingdom and for two seasons in each year from 2017 onwards. It is updated in the first quarter of each year.

Simple

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Point of contact	Organisation name	Individual name	Electronic mail address	Website	Role
	European Commission			https://commission.europa.eu	Owner
	Copernicus Land Monitoring Service		copernicus@eea.europa.eu	https://land.copernicus.eu	Custodian
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Maintenance and update frequency	Annually				
GEMET - INSPIRE themes, version 1.0	Environmental monitoring facilities Habitats and biotopes Orthoimagery				
Keywords					
Keywords					
GEMET	- productivity - plant production - vegetation				

	• plant ecology • index • land • remote sensing
Spatial scope	• European
Temporal resolution	• Annually
Continents, countries, sea regions of the world.	• EEA38 (from 2020) • United Kingdom
Access constraints	Other restrictions
Other constraints	no limitations to public access
Use constraints	Other restrictions
Other constraints	The Copernicus component is governed by Regulation (EU) No 2021/696 of the European Parliament and of the Council of 28 April 2021 establishing the Union Space Programme and the European Union Agency for the Space Programme and repealing Regulations (EU) No 912/2010, (EU) No 1285/2013 and (EU) No 377/2014 and Decision No 541/2014/EU. Within the Copernicus component, a portfolio of land monitoring activities has been delegated by the European Union to the European Environment Agency (EEA) and the DG Joint Research Centre of the European Commission. The Copernicus land monitoring products and services are made available on a principle of full, open and free access, as established by the Commission Delegated Regulation (EU) No 1159/2013 of 12 July 2013. Free, full and open access to the products and services of the Copernicus Land Monitoring Service is made on the conditions that: 1. When distributing or communicating Copernicus Land Monitoring Service products and services (data, software scripts, web services, user and methodological documentation and similar) to the public, users shall inform the public of the source of these products and services. 2. Where the Copernicus Land Monitoring Service products and services have been adapted or modified by the user, the user shall clearly state this. 3. Users shall make sure not to convey the impression to the public that the user's activities are officially endorsed 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	10 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	2017-01-01		
Coordinate reference system identifier	EPSG:32625		
Coordinate reference system identifier	EPSG:32626		
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Coordinate reference system identifier	EPSG:32638		
Distribution format	GeoTIFF (1.0)		
OnLine resource	Protocol WWW: LINK-1.0- http--link	Linkage https://www.wekeo.eu/data?view=viewer&t=1562219742857&z=0&center=13.08408%2C48.33915&zoom=12.34&layers=W3siaWQiOiJjMSIsInJlcGxhY2VtZW50Q29sb3JNYXBjZCI6bnVsbCwibGF5ZXJJZCI6IkVPOkVFQTPpEQVQ6Qc3D https://www.wekeo.eu/data?view=viewer&t=1562219742857&z=0&center=13.08408%2C48.33915&zoom=12.34&layers=W3siaWQiOiJjMSIsInJlcGxhY2VtZW50Q29sb3JNYXBjZCI6bnVsbCwibGF5ZXJJZCI6IkVPOkVFQTPpEQVQ6Qc3D OGC:WMTS https://phenology.vgt.vito.be/wmts?request=GetCapabilities OGC:WMTS https://phenology.vgt.vito.be/wmts?request=GetCapabilities https://land.copernicus.eu/en/technical-library/hr-vpp-data-access-manual/@@download/file	

	WWW: LINK-1.0- http--link OGC: https://phenology.vgt.vito.be/description?collection=copernicus_r_utm-wgs84_10_m_hrvpp-vpp_p_2017-now_v01 OpenSearch WWW: https://land.copernicus.eu/en/products/vegetation/high-resolution-seasonal-productivity LINK-1.0- http--link WWW: https://land.copernicus.eu/en/technical-library/product-user-manual-of-seasonal-trajectories/@@download/file LINK-1.0- http--link OGC:WMS https://phenology.vgt.vito.be/wms?request=GetCapabilities OGC:WMS https://phenology.vgt.vito.be/wms?request=GetCapabilities WWW: https://land.copernicus.eu/en/products/vegetation/high-resolution-seasonal-productivity#download LINK-1.0- http--link
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OnLine resource	Protocol	Linkage	Name
	DOI	https://doi.org/10.2909/5ae0f2a2-7ad8-4f7c-878d-f1b09d78d7a1	

Hierarchy level	Dataset
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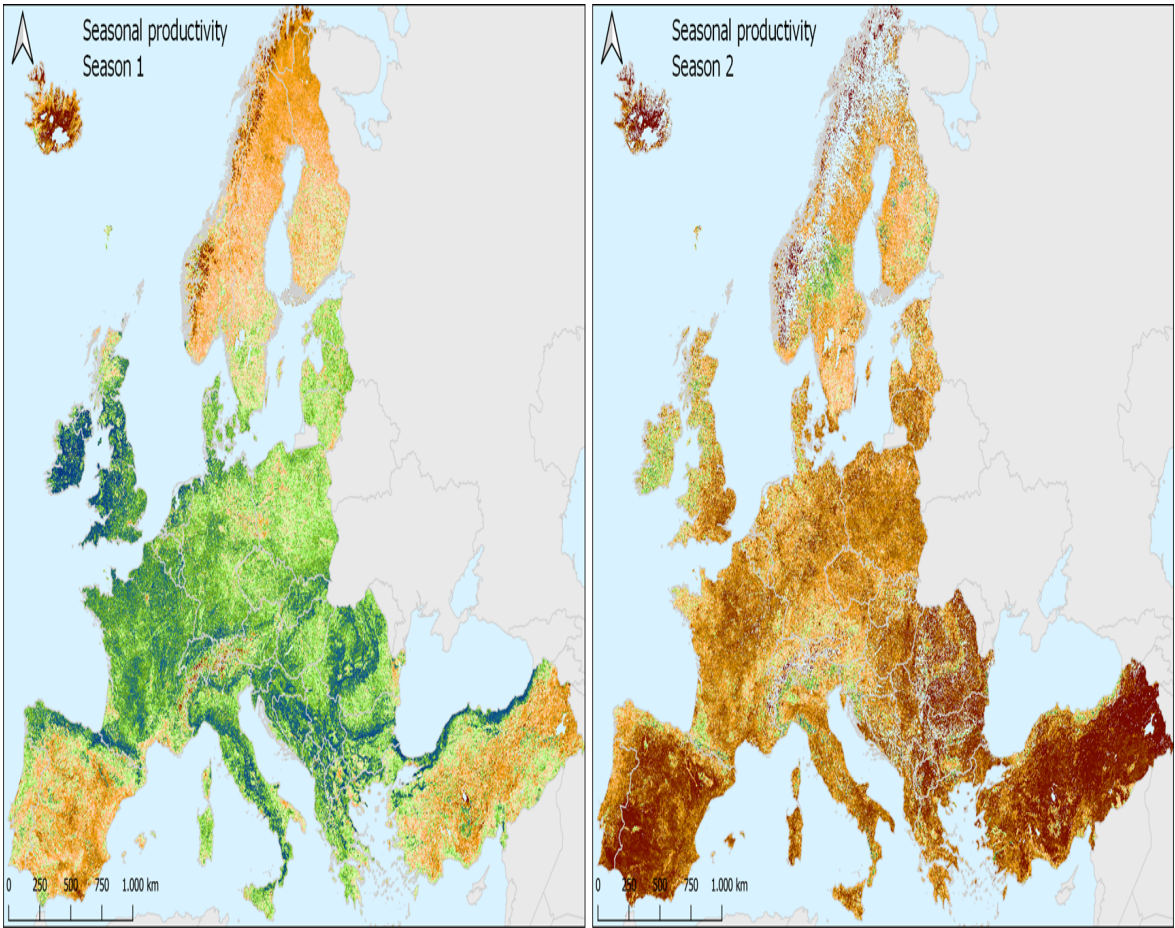
Conformance result

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 Seasonal Productivity (SPROD): the growing season integral that is computed as the sum of all daily PPI values between the dates of the season start (SOSD) and end (EOSD), minus their base level value.
Source	High Resolution Vegetation Phenology and Productivity: PPI Seasonal Trajectories (raster 10m) version 1 revision 1, Sep. 2021

Metadata

File identifier	5ae0f2a2-7ad8-4f7c-878d-f1b09d78d7a1 XML		
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Character set	UTF8		
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Date stamp	2024-02-06T16:46:18.949Z		
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Metadata standard version	1.0		
Metadata author	Organisation name European Environment Agency	Individual name	Electronic mail address sdi@eea.europa.eu Website Role Point of

Overviews



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