



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

The Total Productivity (TPROD), 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 Total Productivity (TPROD), or large integral, is the growing season integral computed as the sum of all daily Plant Phenology Index values between the dates of the season start (SOSD) and end (EOSD).

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 Total Productivity is one of the 13 parameters.

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

The TPROD 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

Date (Publication)	2021-09-02				
Date (Creation)	2021-09-02				
Edition	01.01				
Citation identifier	copernicus_r_utm-wgs84_10_m_hrvpp-vpp-tprod_p_2017-now_v01_r01				
Code	10.2909/977e4bb8-407f-48ec-b4c4-403bca5a6a3b				
Point of contact	Organisation name European Commission Copernicus Land Monitoring Service European Environment Agency Copernicus Land Monitoring Service helpdesk	Individual name Copernicus Land Monitoring Service European Environment Agency Copernicus Land Monitoring Service helpdesk	Electronic mail address copernicus@eea.europa.eu sdi@eea.europa.eu copernicus@eea.europa.eu	Website https://commission.europa.eu https://land.copernicus.eu http://www.eea.europa.eu https://land.copernicus.eu/en/contact-service-helpdesk	Role Owner Custodian Publisher Point of contact
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">• vegetation• productivity• land				

	<ul style="list-style-type: none"> • index • remote sensing • plant production • plant ecology
Spatial scope	• European
Temporal resolution	• Annually
Continents, countries, sea regions of the world.	<ul style="list-style-type: none"> • EEA38 (from 2020) • United Kingdom
Access constraints	Other restrictions
Other constraints	no limitations to public access
Use constraints	Other restrictions
Other constraints	<p>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.</p> <p>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.</p> <p>Free, full and open access to the products and services of the Copernicus Land Monitoring Service is made on the conditions that:</p> <ol style="list-style-type: none"> 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	<ul style="list-style-type: none">• Environment• Imagery base maps earth cover• Climatology, meteorology, atmosphere

N

S

E

W



Begin date	2017-01-01
Coordinate reference system identifier	EPSG:32625
Coordinate reference system identifier	EPSG:32626
Coordinate reference system identifier	EPSG:32627
Coordinate reference system identifier	EPSG:32628
Coordinate reference system identifier	EPSG:32629
Coordinate reference system identifier	EPSG:32630
Coordinate reference system identifier	EPSG:32631
Coordinate reference system identifier	EPSG:32632
Coordinate reference system identifier	EPSG:32633
Coordinate reference system identifier	EPSG:32634
Coordinate reference system identifier	EPSG:32635
Coordinate reference system identifier	EPSG:32636
Coordinate reference system identifier	EPSG:32637
Coordinate reference system identifier	EPSG:32638
Distribution format	• GeoTIFF (1.0)
OnLine resource	<p>Protocol Linkage</p> <p>WWW: LINK-1.0- http-link https://www.wekeo.eu/data?view=viewer&t=1562219742857&z=0&center=13.08408%2C48.33915&zoom=12.34&layers=W3siaWQiOijMSlsInJlcGxhY2ViZW50Q29sb3JNYXBkJZC16bnVsbCwibGF5ZXJJZC16lkVPOkVFQTpEQVQ6Qc3D</p> <p>WWW: LINK-1.0- http-link https://www.wekeo.eu/data?view=viewer&t=1562219742857&z=0&center=13.08408%2C48.33915&zoom=12.34&layers=W3siaWQiOijMSlsInJlcGxhY2ViZW50Q29sb3JNYXBkJZC16bnVsbCwibGF5ZXJJZC16lkVPOkVFQTpEQVQ6Qc3D</p> <p>OGC:WMTS https://phenology.vgt.vito.be/wmts?request=GetCapabilities</p> <p>OGC:WMTS https://phenology.vgt.vito.be/wmts?request=GetCapabilities</p> <p>https://land.copernicus.eu/en/technical-library/hr-vpp-data-access-manual/@ @download/file</p>

	<p>WWW: LINK-1.0- http-link</p> <p>OGC: OpenSearch</p> <p>WWW: https://phenology.vgt.vito.be/description?collection=copernicus_r_utm-wgs84_10_m_hrvpp-vpp_p_2017-now_v01</p> <p>LINK-1.0- http-link</p> <p>WWW: https://land.copernicus.eu/en/products/vegetation/high-resolution-total-productivity</p> <p>LINK-1.0- http-link</p> <p>WWW: https://land.copernicus.eu/en/technical-library/product-user-manual-of-seasonal-trajectories/@@download/file</p> <p>OGC:WMS https://phenology.vgt.vito.be/wms?request=GetCapabilities</p> <p>OGC:WMS https://phenology.vgt.vito.be/wms?request=GetCapabilities</p> <p>WWW: https://land.copernicus.eu/en/products/vegetation/high-resolution-total-productivity#download</p> <p>LINK-1.0- http-link</p>
--	---

OnLine resource	Protocol DOI	Linkage https://doi.org/10.2909/977e4bb8-407f-48ec-b4c4-403bca5a6a3b	Name
Hierarchy level	Dataset		

Conformance result

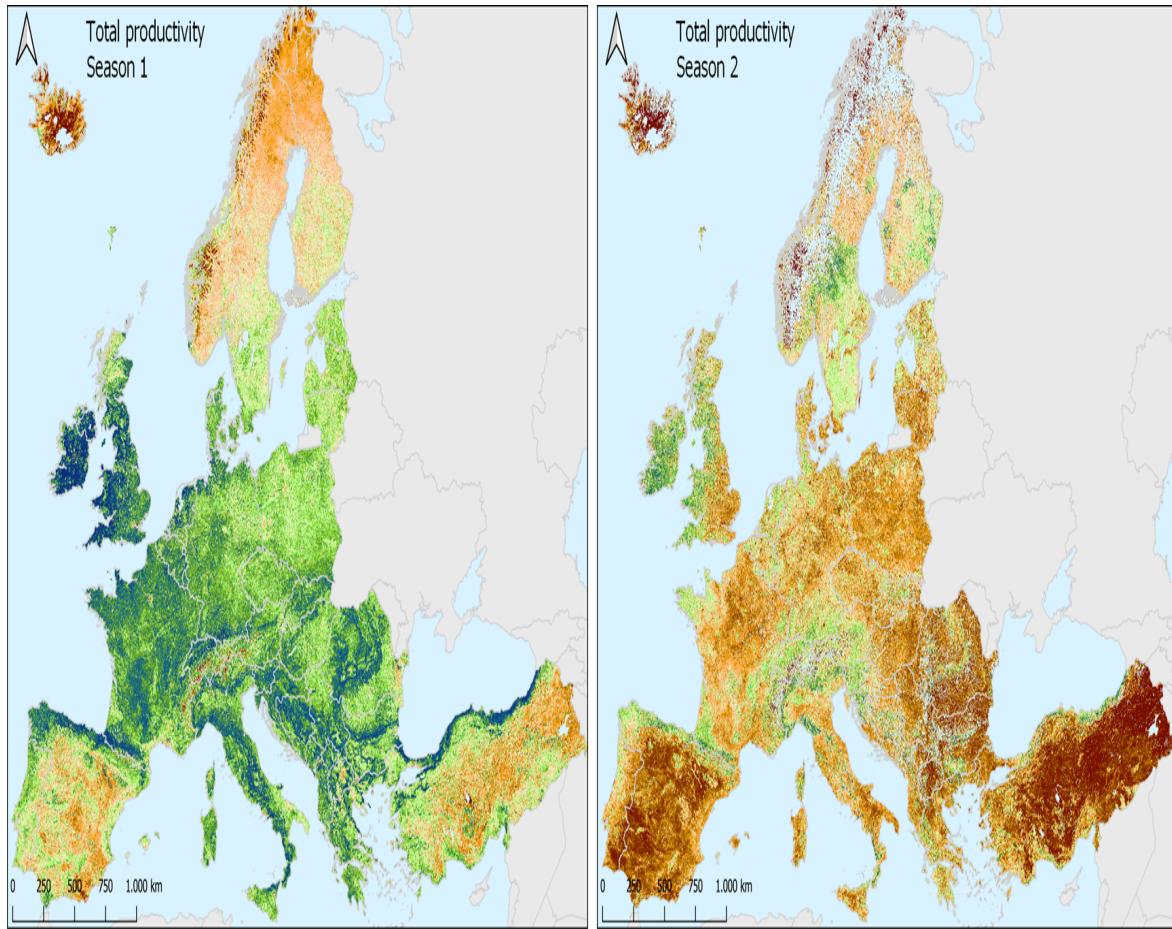
Title	Commission Regulation (EU) No 1089/2010 of 23 November 2010 implementing Directive 2007/2/EC of the European Parliament and of the Council as regards interoperability of spatial data sets and services
Date (Publication)	2010-12-08
Explanation	See the referenced specification

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 Total Productivity (TPROD): the growing season integral computed as the sum of all daily PPI values between the dates of the season start (SOSD) and end (EOSD).
Source	<ul style="list-style-type: none"> • High Resolution Vegetation Phenology and Productivity: PPI Seasonal Trajectories (raster 10m) version 1, Sep. 2021

Metadata

File identifier	977e4bb8-407f-48ec-b4c4-403bca5a6a3b XML		
Metadata language	English		
Character set	UTF8		
Hierarchy level	Dataset		
Date stamp	2024-02-06T16:46:06.333Z		
Metadata standard name	ISO 19115/19139		
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 contact

Overviews



Provided by

