

## Season Amplitude 2017-present (raster 10 m), Europe, yearly, Sept. 2021

The Season Amplitude (AMPL), 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 Season Amplitude (AMPL) is the difference between the maximum and minimum Plant Phenology Index (PPI) values reached during the season.

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 Amplitude is one of the 13 parameters. The full list is available in the table 3 of the Product User Manual [https://land.copernicus.eu/en/technical-library/product-user-manual-of-seasonal-trajectories/@\\_@download/file](https://land.copernicus.eu/en/technical-library/product-user-manual-of-seasonal-trajectories/@_@download/file)

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

The AMPL 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_hrpp-vpp-ampl_p_2017-now_v01_r01
Citation identifier	DAT-263-en
Code	<a href="https://land.copernicus.eu/en/technical-library/product-user-manual-of-seasonal-trajectories/@_@download/file">10.2909/201ee90c-1971-4bdc-855e-9c9bcbc2c647</a>

### Point of contact

No information provided.

### Point of contact

No information provided.

Maintenance and update frequency	Annually
<a href="#">GEMET - INSPIRE themes, version 1.0</a>	<ul style="list-style-type: none"> <li><a href="#">Environmental monitoring facilities</a></li> <li><a href="#">Habitats and biotopes</a></li> <li><a href="#">Orthoimagery</a></li> </ul>
Keywords	
Keywords	
GEMET	<ul style="list-style-type: none"> <li>plant ecology</li> <li>land</li> <li>productivity</li> <li>remote sensing</li> <li>index</li> <li>plant production</li> </ul>

	<ul style="list-style-type: none"> <li>• vegetation</li> </ul>
<b>Spatial scope</b>	<ul style="list-style-type: none"> <li>• <a href="#">European</a></li> </ul>
<b>Temporal resolution</b>	<ul style="list-style-type: none"> <li>• Annually</li> </ul>
<b>Continents, countries, sea regions of the world.</b>	<ul style="list-style-type: none"> <li>• EEA38 (from 2020)</li> <li>• United Kingdom</li> </ul>
<b>EEA Management Plan</b>	<ul style="list-style-type: none"> <li>• 2021 6.5.1</li> </ul>
<b>Access constraints</b>	Other restrictions
<b>Other constraints</b>	<a href="#">no limitations to public access</a>
<b>Use constraints</b>	Other restrictions
<b>Other constraints</b>	<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"> <li>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.</li> <li>2. Users shall make sure not to convey the impression to the public that the user's activities are officially endorsed by the Union.</li> <li>3. Where that data or information has been adapted or modified, the user shall clearly state this.</li> <li>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".</li> </ol>
<b>Aggregate DatasetIdentifier</b>	copernicus_r_utm-wgs84_10_m_hrvpp-vi-qflag2_p_2017-ongoing_v01_r01
<b>Association Type</b>	Cross reference
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<b>Association Type</b>	Cross reference
<b>Spatial representation type</b>	Grid
<b>Distance</b>	10 10 m
<b>Language of dataset</b>	English
<b>Character set</b>	UTF8
<b>Topic category</b>	<ul style="list-style-type: none"> <li>• Environment</li> <li>• Imagery base maps earth cover</li> <li>• Climatology, meteorology, atmosphere</li> </ul>



Begin date	2017-01-01												
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Protocol	Linkage												
WWW: LINK-1.0- http--link	<a href="https://www.wekeo.eu/data?view=viewer&amp;t=1562219742857&amp;z=0&amp;center=13.08408%2C48.33915&amp;zoom=12.34&amp;layers=W3siaWQiOiJjMSIsInJlcGxhY2VtZW50Q29sb3JNYXBjZC16bnVsbCwibGF5ZXJJZC16IkVPOkVFQTpEQVQ6QC3D%3D">https://www.wekeo.eu/data?view=viewer&amp;t=1562219742857&amp;z=0&amp;center=13.08408%2C48.33915&amp;zoom=12.34&amp;layers=W3siaWQiOiJjMSIsInJlcGxhY2VtZW50Q29sb3JNYXBjZC16bnVsbCwibGF5ZXJJZC16IkVPOkVFQTpEQVQ6QC3D%3D</a>												
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<b>OnLine resource</b>	<b>Protocol</b>	<b>Linkage</b>	<b>Name</b>
	DOI	<a href="https://doi.org/10.2909/201ee90c-1971-4bdc-855e-9c9bcbc2c647">https://doi.org/10.2909/201ee90c-1971-4bdc-855e-9c9bcbc2c647</a>	

<b>Hierarchy level</b>	Dataset
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## Conformance result

<b>Date (Publication)</b>	2010-12-08
<b>Explanation</b>	See the referenced specification

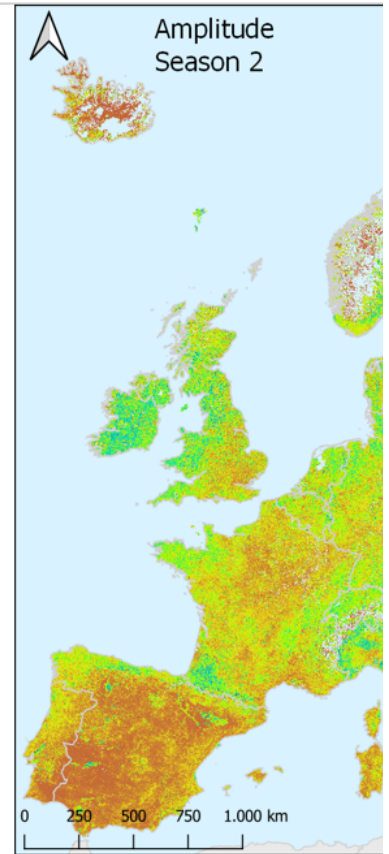
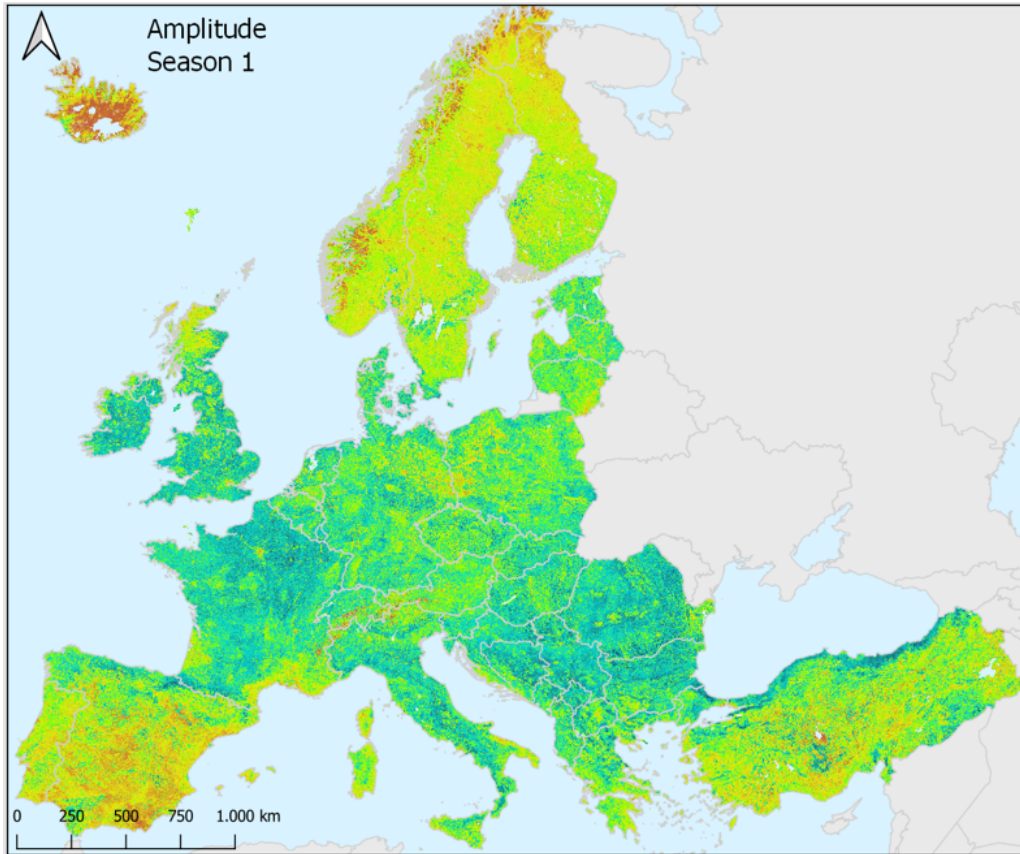
<b>Statement</b>	<p>Vegetation Phenology and Productivity parameters (VPP) are based on Plant Phenology Index (PPI) seasonal trajectories and are yearly produced for two seasons using the Timesat software. One of the parameters is the Seasonal Amplitude (AMPL), the difference between the maximum PPI value of the season (MAXV, also referred to as peak value) and the minimum PPI value of the season (MINV, aka base Value). Both MINV and MAXV values are provided as well.</p> <p>The latest validation results are described in the validation report at: <a href="https://land.copernicus.eu/en/technical-library/validation-report-of-seasonal-trajectories-vpp-parameters/@_@download/file">https://land.copernicus.eu/en/technical-library/validation-report-of-seasonal-trajectories-vpp-parameters/@_@download/file</a> .</p>
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<b>Source</b>	•
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## Metadata

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<b>Character set</b>	UTF8		
<b>Hierarchy level</b>	Dataset		
<b>Date stamp</b>	2024-02-06T16:46:21.975Z		
<b>Metadata standard name</b>	ISO 19115/19139		
<b>Metadata standard version</b>	1.0		
<b>Metadata author</b>	<b>Organisation name</b>	<b>Individual name</b>	<b>Electronic mail address</b> <b>Website Role</b> Point

## Overviews



Provided by

