

# Medium Resolution Vegetation Phenology and Productivity: Seasonal amplitude (raster 500m), Oct. 2022

The seasonal amplitude, one of the Vegetation Phenology and Productivity (VPP) parameters, is a product of the pan-European Medium Resolution Vegetation Phenology and Productivity (MR-VPP) component of the Copernicus Land Monitoring Service (CLMS).

The seasonal amplitude 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. 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 amplitude) is one of the 13 parameters. The full list is available in the Product User Manual: <a href="https://and.copernicus.eu/user-comer/technical-library/cms\_mryp\_pum\_d1-0.pdf">https://and.copernicus.eu/user-comer/technical-library/cms\_mryp\_pum\_d1-0.pdf</a>

The seasonal amplitude 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: <a href="https://land.copernicus.eu/contact-form">https://land.copernicus.eu/contact-form</a>

### Simple

| Date (Creation)     | 2022-06-08                               |                       |                             |                                    |             |
|---------------------|--|-----------------------|-----------------------------|------------------------------------|-------------|
| Date (Publication)  | 2022-10-10                               |                       |                             |                                    |             |
| Edition             | 01.00                                    |                       |                             |                                    |             |
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#### Point of contact

No information provided.

| Maintenance and update frequency                 | Annually   |
|--|--|
| GEMET - INSPIRE themes, version 1.0              | <ul> <li>Habitats and biotopes</li> <li>Orthoimagery</li> <li>Environmental monitoring facilities</li> </ul> |
| Keywords   |  |
| Continents, countries, sea regions of the world. | United Kingdom     EEA38 (from 2020)   |

| Keywords                    |   |
|-----------------------------|---|
| reywolus                    |   |
| GEMET                       | • land  |
|                             | • productivity  |
|                             | vegetation  |
|                             | remote sensing  |
|                             | plant ecology   |
|                             | plant production  |
|                             | • index   |
| Spatial scope               | • European  |
| Temporal resolution         | • Annually  |
|                             | Agriculture and food  |
| EEA topics                  | Land use  |
|                             | Forests and forestry  |
| Access constraints          | Other restrictions  |
| Other constraints           | no limitations to public access   |
| Use constraints             | Other restrictions  |
| Other constraints           | 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.  |
|                             | Free, full and open access to this data set is made on the conditions that:   |
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| Spatial representation type | Grid  |
| Distance                    | 500 m   |
| Language of dataset         | English   |
| Character set               | UTF8  |
| Topic category              | <ul> <li>Environment</li> <li>Imagery base maps earth cover</li> <li>Climatology, meteorology, atmosphere</li> </ul>  |

| N | S | E |  |
|---|---|---|--|
|---|---|---|--|



| Begin date                             | 2000-01-01                        |  |                               |
|--|-----------------------------------|--|-------------------------------|
| Coordinate reference system identifier | EPSG:3035                         |  |                               |
| Distribution format                    | • GeoTIFF()                       |  |                               |
| OnLine resource                        | Protocol<br>WWW:LINK-1.0-httplink | https://land.copernicus.eu/user-corner/technical-library | <b>Name</b><br>User<br>manual |
| Hierarchy level                        | Dataset                           |  |                               |

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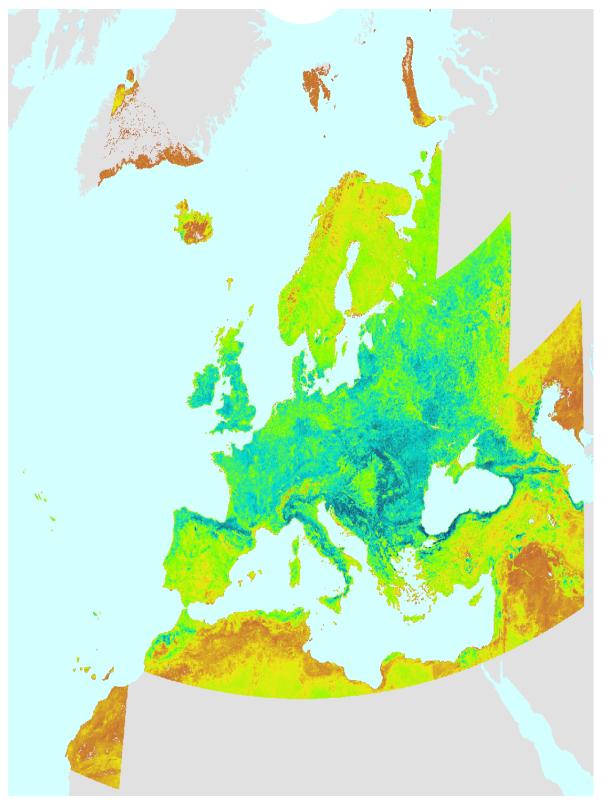
### Conformance result

| 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 amplitude which is the difference between the maximum and minimum Plant Phenology Index (PPI) values reached during the season. |

#### Metadata

| Metadata author           | Organisation name                        | Individual name | Electronic | Website Role |
|---------------------------|--|-----------------|------------|--------------|
| Metadata standard version | 1.0                                      |                 |            |              |
| Metadata standard name    | ISO 19115/19139                          |                 |            |              |
| Date stamp                | 2024-04-02T13:54:48.390112Z              |                 |            |              |
| Hierarchy level           | Dataset                                  |                 |            |              |
| Character set             | UTF8                                     |                 |            |              |
| Metadata language         | English                                  |                 |            |              |
| File identifier           | 3f0c293d-4442-42f1-923e-5269951554d1 XML |                 |            |              |

## Overviews



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