

JRC Dataset

Global land surface phenology - Start of senescence

Description:

The satellite- derived phenology is computed on the long-term average of 10-day MODIS NDVI data produced by BOKU University starting from MOD13A2 and MYD13A2 V006 16-DAY Global data at 1 km resolution. Phenology was extracted using the SPIRITS software applied to the historical average of the smoothed NDVI over the period 2003-2016. For each pixel, start of senescence is retrieved, occurring at the time at which NDVI drops below 75% of the descending amplitude of the seasonal profile.

Contributors:

- Meroni, Michele michele.meroni@ec.europa.eu

How to cite:

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Keywords:

ASAP, Agricultural monitoring, SEN, land surface phenology, start of senescence

Related resources:

Data access

Start of senescence for the second season

Tiff file containing value V which is expressed over a 3 years period, from 1 to 108 dekads (i.e. ten day periods). This is done to be able to treat the circular variable dekad as an ordinal variable. To get the timing T in the 1-36 dekad units (calendar year): i) if value V is smaller or equal with 36, then T=V, ii) if value V is larger than 36 and smaller or equal with 72, then T=V-36, and iii) if value V is larger than 72, then T=V-72.

https://mars.jrc.ec.europa.eu/asap/files/phenosen2_v02.tif

Start of senescence for the first season

Tiff file containing value V which is expressed over a 3 years period, from 1 to 108 dekads (i.e. ten day periods). This is done to be able to treat the circular variable dekad as an ordinal variable. To get the timing T in the 1-36 dekad units (calendar year): i) if value V is smaller or equal with 36, then T=V, ii) if value V is larger than 36 and smaller or equal with 72, then T=V-36, and iii) if value V is larger than 72, then T=V-72.

https://mars.jrc.ec.europa.eu/asap/files/phenosen1_v02.tif

Publications

ASAP: a new global early warning system to detect Anomaly hot Spots of Agricultural Production for food security analysis

Rembold, F., Meroni, M., Urbano, F., Csak, G., Kerdiles, H., Perez Hoyos, A., Lemoine, G., Leo, O. and Negre, T., ASAP: a new global early warning system to detect Anomaly hot Spots of Agricultural Production for food security analysis, AGRICULTURAL SYSTEMS, ISSN 0308-521X, 168, 2019, p. 247-257, JRC109950.

DOI:[10.1016/j.agry.2018.07.002](https://doi.org/10.1016/j.agry.2018.07.002)

Additional information:

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Landing page: <https://mars.jrc.ec.europa.eu/asap/download.php>

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