

## Soil pH in Europe, Dec. 2009

The JRC created a quantitative map of estimated soil pH values across Europe from a compilation of 12,333 soil pH measurements from 11 different sources, and using a geo-statistical framework based on Regression-Kriging. Fifty-four (54) auxiliary variables in the form of raster maps at 1km resolution were used to explain the differences in the distribution of soil pH<sub>CaCl2</sub> and the kriged map of the residuals from the regression model was added. The goodness of fit of the regression model was satisfactory ( $R^2_{adj} = 0.43$ ) and its residuals follow a Gaussian distribution. The lowest values correspond to the soils developed on acid rock (granites, quartzite's, sandstones, etc), while the higher values are related to the presence of calcareous sediments and basic rocks. The validation of the model shows that the model is quite accurate ( $R^2_{adj} = 0.56$ ). This shows the validity of Regression-Kriging in the estimation of the distribution of soil properties when a large and adequately documented number of soil measurements are available.

This metadata record is adapted from the original one received from JRC.

### Simple

<b>Date (Creation)</b>	2009-12-31
<b>Citation identifier</b>	jrc_r_3035_1_km_esdb-ph_2009

### Point of contact

No information provided.

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No information provided.

<a href="#">GEMET - INSPIRE themes, version 1.0</a>	<ul style="list-style-type: none"> <li>• Soil</li> </ul>
<b>GEMET</b>	<ul style="list-style-type: none"> <li>• soil</li> <li>• soil acidification</li> <li>• pH-value</li> </ul>
<b>Keywords</b>	
<b>Keywords</b>	
<b>EEA topics</b>	<ul style="list-style-type: none"> <li>• Soil</li> <li>• Agriculture and food</li> <li>• Water</li> </ul>
<b>Use limitation</b>	<p>Notification regarding these data:</p> <ol style="list-style-type: none"> <li>1. The data of the "Map of Soil pH in Europe" are made available for research purposes only and not for any other activity.</li> <li>2. The data of the "Map of Soil pH in Europe" were elaborated by the DG Joint Research Centre of the European Commission (JRC) through the processing of data available at the European Soil Data Centre (ESDAC). The data are the result of a JRC internal research activity; the underlying model and resulting data still need to be validated and verified; no formal quality check on the data has been made yet. The JRC, on behalf of the Commission, does not accept any liability whatsoever for any error, missing data or omissions in the data, or for any loss or damage arising from its use. The JRC, on behalf of the Commission, agrees to provide the data free of charge but is not bound to justify the content and values contained in the databases.</li> </ol> <p>The permission to use the data specified above is granted on condition that, under no circumstances are these data passed to third parties. Moreover they must not be used in any way for commercial gain or for purposes other than those specified above.</p> <p>The user agrees to:</p>

- a) Make proper reference to the source of the data when disseminating the results to which this agreement relates;
- b) Participate in the verification of the data (e.g. by noting and reporting any errors or omissions discovered to the JRC).

Reference of source (Citations) :

Panagos P., Van Liedekerke M., Jones A., Montanarella L. European Soil Data Centre: Response to European policy support and public data requirements. (2012) Land Use Policy, 29 (2), pp. 329-338. doi:10.1016/j.landusepol.2011.07.003

"Map of Soil pH in Europe", Land Management and Natural Hazards Unit, Institute for Environment & Sustainability, European Commission – Joint Research Centre, 2010

<b>Access constraints</b>	Other restrictions
<b>Other constraints</b>	<a href="#">no limitations to public access</a>
<b>Spatial representation type</b>	Grid
<b>Distance</b>	1 km
<b>Language of dataset</b>	English
<b>Character set</b>	UTF8
<b>Topic category</b>	<ul style="list-style-type: none"> <li>• Geoscientific information</li> </ul>



<b>Begin date</b>	2009-01-01
<b>End date</b>	2009-12-31
<b>CRS identifier</b>	<a href="#">EPSG:3035</a>
<b>Distribution format</b>	<ul style="list-style-type: none"> <li>• AAIGrid ( )</li> </ul>

### OnLine resource

No information provided.

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

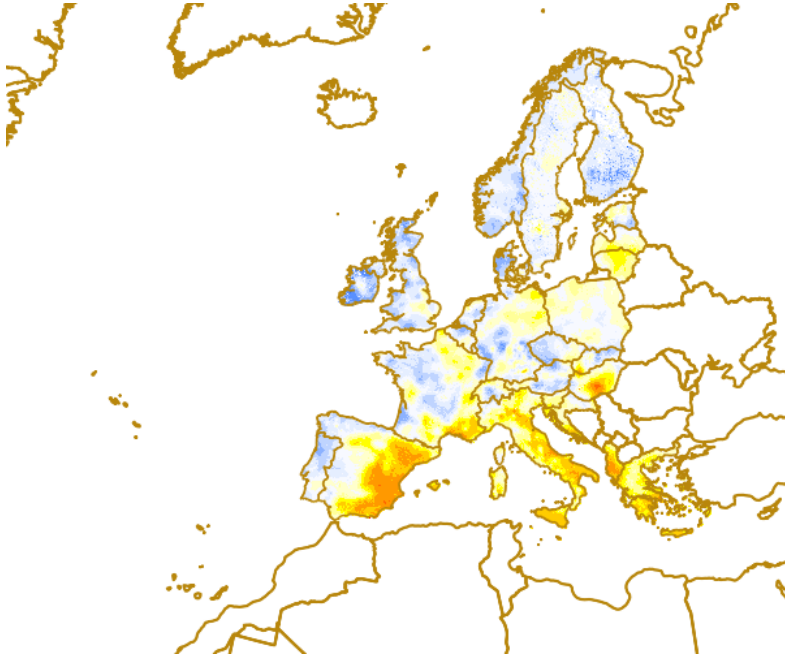
<b>Date (Publication)</b>	2010-12-08
<b>Explanation</b>	See the referenced specification

<b>Statement</b>	Refer to <a href="http://eusoils.jrc.ec.europa.eu/library/data/ph/">http://eusoils.jrc.ec.europa.eu/library/data/ph/</a> and to Böhner, J., Blaschke, T., Montanarella, L. [Eds.] (2008): SAGA – Seconds Out. Hamburger Beiträge zur Physischen Geographie und Landschaftsökologie, Vol.19, 113pp. [ <a href="http://ignum.dl.sourceforge.net/project/saga-gis/SAGA%20-%20Documentation/HBPL19/hbpl19_10.pdf">http://ignum.dl.sourceforge.net/project/saga-gis/SAGA%20-%20Documentation/HBPL19/hbpl19_10.pdf</a> ].
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### Metadata

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<b>Metadata language</b>	English						
<b>Character set</b>	UTF8						
<b>Hierarchy level</b>	Dataset						
<b>Date stamp</b>	2020-07-10T17:14:09						
<b>Metadata standard name</b>	ISO 19115/19139						
<b>Metadata standard version</b>	1.0						
<b>Metadata author</b>	<table border="0"> <tr> <td style="width: 50%;"><b>Organisation name</b></td> <td style="width: 50%;"><b>Individual name</b></td> </tr> <tr> <td></td> <td style="text-align: right;"><b>Electronic mail</b></td> </tr> <tr> <td></td> <td style="text-align: right;"><b>Role</b></td> </tr> </table>	<b>Organisation name</b>	<b>Individual name</b>		<b>Electronic mail</b>		<b>Role</b>
<b>Organisation name</b>	<b>Individual name</b>						
	<b>Electronic mail</b>						
	<b>Role</b>						

## Overviews



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