

Name:

Phosphorous productivity.

Definition:

P productivity represents the crop yield (kg)per P applied (kg), expressed as P₂O₅ .

Method of calculation:

This indicator is calculated by estimating the sum of P productivity in eachplot/ crop.

$$\text{Indicator} = \frac{\sum_i (PP_i \times A_i)}{A_T}$$

Where:

Indicator: Total P productivity (crop yield (kg) per fertilizer P (kg) expressed as P₂O₅)

PP_i: P productivity of crop *i*

A_i: Area for the crop *i* (ha)

A_T: Total area considered (ha)

The P productivity of each crop is estimated by dividing its yield between the P applied.

Interpretation:

Higher P productivity means better use of fertilizers by the crop.

Information source:

Crop area, applied inputs and yields of the different crops: data obtained in a farmers survey.
The values of crops phosphorous uptakes: data obtained in bibliography.

Bibliography and references:

European Environment Agency. Indicator Fact Sheet IRENA 18.1 – Gross nitrogen balance

Ministerio de Medio Ambiente y Medio Rural y Marino (2010). Guía práctica de la fertilización racional de los cultivos en España.

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OECD / Eurostat. Gross phosphorus balance handbook (2007)