

Name:

Phosphorous efficiency.

Definition:

Phosphorous use efficiency is the ratio between the amount of P fertilizer (P expressed as P₂O₅) uptaken by the crop and the amount of fertilizer P₂O₅ applied to the field, expressed in %.

Method of calculation :

This indicator is calculated by estimating the P use efficiency in each plot/crop.

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

Where:

Indicator: Total P efficiency (P output (kg) per fertilizer P (kg))

PE_i: Phosphorus efficiency of crop *i*

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

A_T: Total area considered (ha)

The phosphorous efficiency of each crop is estimated by dividing the phosphorus in harvested productions between the a phosphorus applied.

Interpretation:

Higher phosphorus efficiency means better use of fertilizers by the crop.

Information source:

Crop area, applied inputs and crop yields data obtained in a farmers survey.

The values of extractions of phosphorus by the crops are taken from bibliography.

Bibliography and references:

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

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