

**Name:**

Energy productivity

**Definition:**

The energy productivity of the farm is the harvest obtained thanks to the energy used in its production ( kg of crop yield per MJ of energy used).

**Calculation method:**

It is calculated as the division between the energy output (harvested agricultural production) and the energy input derived from the provision of inputs and that used in the management practices on the farm.

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

Where:

Indicator: Energy productivity (kg/MJ)

EP<sub>i</sub>: Energy productivity of the crop *i* = crop yield (kg/ha) / Energy used (MJ/ha)

A<sub>i</sub>: Area assigned to the crop *i* (ha)

A<sub>T</sub>: Total area considered (ha)

**Interpretation:**

Greater nitrogen productivity means better use of energy by the crop. The more positive the value, the less energy is required per unit crop yield, and therefore the farm will be more environmentally sustainable.

**Information source:**

The surfaces, inputs and yields of different crops are obtained through a survey to farmers. The energy associated with each of the inputs and outputs are obtained from the attached bibliography.

**Bibliography and references:**

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