

Name:

Profit per unit of labor

Definition:

It is the income obtained per unit of labor. It indicates which crops and management are more efficient in the use of labor.

Derivative of the yield per hectare (Indicator 01) is based on the Net Income indicator (OECD, 2001). Net farm income is the gross farm income less expenses related to agricultural activity divided by the "units of human labor" that occurred during a specified accounting period.

Calculation method:

Both crop income and farm subsidies established by Common Agricultural Policy, are necessary in order to calculate the gross farm income. On the other hand, expenses related to agricultural activity are seeds, fertilizers, energy, contract labor, etc.

The value of this indicator shall be calculated as explained below:

$$\text{Indicator} = \left[\frac{\sum_i [(CY_i \times P_i) - VC_i] A_i + Subv_i}{A_t} \right] / \frac{\sum_i (T_i \times O_i) A_i}{A_t}$$

Where:

CY_i: Crop yield (T/ha) of each plot

P_i: Selling price of a product (€/T)

VC_i: Variable crop costs (€/ha)

A_i: Area assigned to the crop/plot

Subv_i: Received farm subsidies

S_T: Total area considered (ha). Useful agricultural area UAA

T_i: The amount of time taken by each operation (h/ha)

O_i: Operations carried out on the plot

The alternative calculation without taking into account the amount received by the subsidies

$$\text{Indicator} = \left[\frac{\sum_i [(CY_i \times P_i) - VC_i] A_i}{A_t} \right] / \frac{\sum_i (T_i \times O_i) A_i}{A_t}$$

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O_i: Operations carried out on the plot

Interpretation:

With this indicator we can evaluate how the labor factor is used in the farm. The more efficient it is, the less work will have to be employed for its management and therefore the higher profit per worker will be obtained.

Information source:

Data obtained through a survey to farmers

CY_i: Crop yield (T/ha) of each plot. Data obtained through a survey to farmers

P_i: Selling price of a product (€/T). Data obtained through a survey to farmers

VC_i: Variable crop costs (€/ha). The costs depend on operations on the plot and following means:

Fuel consumption. See the Indicator 1

Cost of seed. Data obtained through a survey to farmers

Cost of fertilizers and plant protection products. Data obtained through a survey to farmers

A_i: Area assigned to the crop/plot. Data obtained through a survey to farmers

Sub_i: Received farm subsidies. Data obtained through a survey to farmers

A_T: Total area considered (ha). Data obtained through a survey to farmers.