

Indicator	Description	Level
<u>System vulnerability</u>		
Self-sufficiency for animal feeding (SAF)	Animal feed produced by a livestock farm (territory level) on a dry matter basis in relation to annual needs of a livestock farm (territory) for each animal feed component. A territory is considered sufficient if the ratio supply/demand is above 100%.	Group
Territorial sufficiency for animal feeding (TSAF)		Territory
Energetic yield (NY)	Amount of annual energy contained in crop yields. Energy content is an important property of the crop yields and is a proxy of the overall production capacity of the system.	Farm, Group, Territory
Protein yield (PY)	Amount of annual protein contained in crop yields. Protein content is an important property of the crop yields aimed at animal feeding and is a proxy of the production capacity aimed at animal feeding.	Farm, Group, Territory
Gross margin (GM)	Average gross margin. Assessment of overall economic returns measured by extracting the total revenue (including European subsidies) from the variable production costs (seeds, fertiliser, pesticide, etc.)	Farm, Group, Territory
<u>Performance</u>		
Energetic yield coefficient of variation (EYCV)	Assessment of the stability of the crop yield component per year. CV is used to assess the stability of the production system, the lower the CV, the more stable is the system.	Farm, Group, Territory
Protein yield coefficient of variation (PYCV)		
Gross margin coefficient of variation (GMCV)	Assessment of the farm gross margin stability per year. The lower the GMCV, the more stable the system.	Farm, Group, Territory
Economic efficiency of production (EEP)	Economic efficiency of production per year and per hectare, i.e., the ratio between gross margin and total revenue. This indicator specifies the dependency on external inputs, hence the economic vulnerability to external shocks and market fluctuations. The higher the EEP, the lower vulnerability the system presents.	Farm, Group, Territory
Nitrogen use (Nuse)	Sum of nitrogen use in arable crops per ha per year. It is a proxy of environmental impact. The lower the N use, the lower the conceived environmental impact.	Farm, Group, Territory
Nitrogen use efficiency (Neff)	Relation between N use and protein yield. It assesses the efficiency of N application and is considered as a support for N use. Although applied in high quantity, it can also be highly absorbed by a N exigent crop. A proxy of N leaching, thus the higher the N efficiency, the lower the conceived environmental impact.	Farm, Group, Territory
Treatment frequent index (TFI)	TFI, measured per ha per year, includes all the pesticide treatments applied in a given crop field considering the official approved dose for each crop. The lower the TFI, the lower the conceived environmental impact. It is a proxy of the environmental and social (in terms of public health) impact.	Farm, Group, Territory
Water use (WU)	Water use, per year per ha, from irrigation. The lower the water use, the less susceptible the system is to periods of drought, in addition to the lower impacts of potable water.	Farm, Group, Territory
Workload (WL)	Sum of hours per year spent on arable field activities. A social proxy, as a lower WL indicates the farmer has more free time for other activities.	Farm, Group, Territory