Profitability measures

Form. 1

Gross margin

The gross margin is defined as a difference between the marginal output and marginal costs when the scale of production is increased by one unit.

It depends on the specific farm situation which costs positions change (variable) and which ones remain the same (fixed):

a) materials (seeds, chemicals and fertilizers, etc.) and services can usually be directly allotted to the variable costs.

b) considering such factors as capital used in form of current assets, working time, utilized area (land), production/supply rights, etc., it depends on the farm situation, and to what extent:
   - they can be allocated to the variable or to the fixed costs;
   - their appearance incurs expenditures (for borrowed factors) or opportunity costs (especially for own factors).

   Since it is not reasonable to sum up the costs of use of the mentioned production factors, they are usually not taken into account in gross margin calculations and are calculated separately.

   If gross margin calculations are used for farm planning and for determination of efficiency, measures containing the return of the used capital and/or labour on the basis of total gross margin, a calculation of imputed costs and wages/imputed costs for labour in gross margin would cause to difficulties:

   these costs must be added back to the total gross margin in order to e.g. be able to measure the value added appropriately.

   Therefore, the rule of a calculation of the gross margin applied in practice states:

   ⇨ no imputed costs for capital, labour and land in gross margins.

c) costs of fixed assets (depreciations, imputed costs for capital, etc.) are considered to be marginal costs only in exceptional cases (investments) and are, therefore, not taken into account in the calculations of gross margins.

d) other fixed special costs, proportionate overhead costs and the costs of general labour usually do not change in proportion to the scale of production and are, therefore, not taken into account in the calculations of gross margins.

For marginal output in gross margin calculations non-marketable output such as premia (e.g. direct payments) are added to the gross output

Interpretation

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For the calculation of the gross margin in the example calculation the described procedure looks as follows:

Output (production + where applicable: by-product output and premia)	1,033 €/ha
– Proportional variable costs (materials & services)	490 €/ha
= Gross margin (applied in practice)	543 €/ha

The gross margin shows, how much money per ha is available for covering the costs of all still remaining factors.

If it is assumed that all factors, which have not yet been taken into account, are sufficiently available, the gross margin is the first important measure for evaluation of the relative economic viability of alternative farm enterprises, since the higher the level of the gross margin of a farm enterprise, the higher (if the costs are otherwise fixed) its contribution to the (Net) Profit of the farm.

Gross margin I, II, III

For situations, in which there are variable costs for capital (current assets), labour (production), land, etc., they should be taken into account in the calculation of the gross margin step by step. In order to distinguish the indicators, which appear in this way, from the gross margin applied in practice they are called gross margin I, II, III. The calculation and interpretation of these gross margins is described in chapter 5.2.