

	Explanation of agri benchmark terms
Capital cost	Interest paid for acquired loans plus the calculated interest cost for equity of non-land assets (opportunity cost of own capital).
Cash cost	Cash cost according to profit and loss account: the sum of fertilizer, plant protection, and seeds costs; including wages, land rents and interest paid. It accounts for all cash outflows.
Contractor cost	Includes the total amount paid to the contractor, hence it covers labor cost, machin- ery cost and diesel cost.
Crop establishment cost	Cost for seeds, fertilizers and plant protection.
Crop insurance costs	Net insurance costs for the individual crops.
Depreciation	Linear depreciation for buildings, machinery and equipment based on current re- placement cost rather than on historical purchase prices. The depreciation for tax reasons does not play a role.
Direct cost (./. finance)	Cost for seed, fertilizer, plant protection (i.e. "establishment costs") plus variable irrigation cost, crop insurance and drying energy cost
Drying cost	Contain cash energy expenses such as heating oil and gas used for drying the harvest- ed product.
Energy related cost	Expenditures for fuel to run machinery (including cars, drying and irrigation) plus nitrogen fertilizer expenditure.
Family labor	Accounts for the opportunity cost of family labor, which is allocated to individual crops either by using machine runtime-hours or revenue shares of individual crops in the total revenue. The opportunity cost are defined in the setup of the typical farm according to the specific condition in the region and the farms and reflect the forgone alternatives of family members to earn money outside the farm.
Fertilizer cost	All cost for fertilizer including purchased as well as manure coming from livestock. Prices for single nutrients are calculated on a per kg element basis.
Finance cost of inventory	Includes the finance cash costs for debt in current assets (e.g. short-term loans) and the opportunity cost of equity In current assets. It is assumed that all direct cost needs to be financed for 6 month.
Fixed cost	Fix costs such as labor and machinery costs are allocated in two ways: (a) when pro- duction system data is available, crop specific machine runtime-hours shares are used to allocate these costs to individual crops; (b) for data sets without production system information, allocation is done by using revenue shares of individual crops in the total revenue. The latter concept (b) is always used in order to allocate overhead cost such as building cost to individual crops.
Gross Margin 1	Gross revenue minus the total direct costs (i.e. direct costs plus finance cost field inventory)
Gross revenue per hectare	Market receipts per hectare added to coupled payments (if any) plus other income per hectare of specified crops (if any).
Hired labor	Cost for wages paid plus social security cost as well as any insurance costs directly related to the individual labor force. The cost allocation to the crop enterprise and the individual crops follows the approach used for family labor.
Insurances	All business related insurances acquired by the farm, including special social security and the like.



Interest cost	Loans interest costs (i.e. actual cash cost paid to the credit institution) as well as the opportunity cost for equity (forgone revenues because the capital was invested in farming), which is allocated to the production of the specified crop.
Irrigation cost (var.)	Variable irrigation cost such as fuel and water cost/fees; it does not include labor or depreciation for machinery.
Labor (working hours)	Working hours for staff include field work as well as other farm activities, adding up to the annual working hours per worker.
Land cost	Sum of land rents actually paid (taking into account different contract durations) per hectare times the share of rented land in total arable land. This added to the average opportunity cost of family owned land multiplied by the share of owned land in total arable land. Opportunity cost of family owned land is calculated according to the most recent land rents in the region of the typical farm.
Long term profitability	Gross revenue minus (cash cost + depreciation + opportunity cost).
Machinery and building cost	Cost of depreciation, finance and repair of machinery and buildings, including irriga- tion machinery that is allocated to the specified crop.
Medium term profitability	Gross revenue minus cash cost minus depreciation
Operating cost	The sum of variable machinery cost (e.g. repairs), fuel costs, depreciation, finance for machinery, labor cost (i.e. expenditures for hired labor and opportunity cost for family labor) as well as contractor cost.
Opportunity cost	The total of calculated cost for using resources belonging to the grower and his/her family which do not show up in a regular P&L account: equity, land and labor.
Plant protection cost	All cost for plant protection products applied. It does not include seed treatment and/or technology fees for GM crops.
Price	All prices are from the most recent calendar year and net farm gate prices, excluding VAT.
Profit	Return to management or entrepreneurial profit. That means, all factors em- ployed – be it family owned labor, land and capital (equity) have been paid for. Therefore this profit figure should not be compared to the accounting earnings (excess of revenue over expenses and taxes)
Return to land	The remuneration of the production factor land. It is total revenue minus total cost plus land cost
Seed cost	All cost for seeds whether they are purchased or opportunity cost for farm saved seeds.
Short term profitability	Gross revenue less cash cost.
Total direct cost	Direct cost plus interest cost for financing expenditures. The calculation of the latter relies on the assumption that on average expenditures for direct cost have to be financed for six months.
Total labor cost	Wages paid (cost for hired labor) plus calculated wages for family labor (opportunity cost).
Total machinery finance	Interest paid for debt plus opportunity cost for equity used to finance machinery.
Variable machinery cost	All allocated and direct variable machinery cost including custom labor.