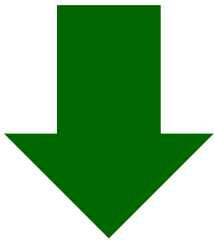


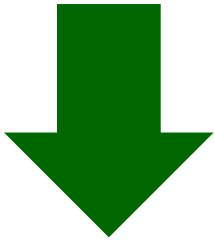
Calculating Enterprise Net Margins

Net Enterprise Income



Minus
variable
costs

Gross Margin



Minus **fixed**
costs

Net Margin

Gross margins are a useful **comparison** but don't always show if a crop is **profitable**.

Net Margins include the **total cost of production**, so ALL **fixed** and **variable** costs.

Fixed Costs include:

- Labour
- Machinery costs
- Water & electricity
- Administrative costs
- Rents
- Property repairs and costs

Net Margins can be calculated on a **per enterprise basis**.

A Winter Wheat Net Margin

Net Margin Detail - Winter Wheat - England

	2012/13		2013/14	
Farms in Sample	689		613	
	Per farm	Per hectare	Per farm	Per hectare
Area per farm (hectares)	67.45		58.51	
Yield (tonnes and tonnes per hectare)	466.9	6.9	465.4	8.0
Price (£ per tonne)	179		162	
OUTPUT (£)				
Crop sold	81,649	1,211	74,084	1,266
Feed used on-farm	2,008	30	1,530	26
Straw and by-products	4,002	59	3,634	62
TOTAL OUTPUT	87,659	1,300	79,249	1,354
VARIABLE COSTS (£)				
Seeds (including homegrown)	4,652	69	4,542	78
Fertilisers	15,526	230	12,883	220
Crop protection	13,400	199	10,948	187
Other crop costs	1,967	29	1,656	28
Drying and heating costs	607	9	416	7
TOTAL VARIABLE COSTS	36,153	536	30,444	520
GROSS MARGIN (£)	51,506	764	48,804	834

- 1) Calculate the **Gross Margin** for winter wheat
 - Total wheat output
 - Minus wheat **variable costs**

- 2) Allocate **Fixed Costs** to the winter wheat crop:
 - Labour
 - Machinery & Depreciation charges
 - General Costs
 - Land & Property costs

3) Net Margin

Gross Margin - Fixed Costs

	2012/13		2013/14	
	Per Farm	Per Ha	Per Farm	Per Ha
GROSS MARGIN	51,506	764	48,804	834
Paid labour	4,033	60	5,328	91
Unpaid labour	1,293	19	1,557	27
TOTAL LABOUR	5,326	79	6,885	118
Contract work	5,636	84	5,234	89
Machinery rental	520	8	432	7
Machinery and equipment repairs	4,929	73	4,928	84
Machinery and vehicle fuel and oils	5,501	82	5,278	90
Machinery depreciation	10,010	148	9,702	166
TOTAL MACHINERY	26,595	394	25,577	437
Electricity	676	10	626	11
Water	400	6	302	5
General insurance	1,771	26	1,504	26
Bank charges	294	4	246	4
Professional fees	1,485	22	1,207	21
Vehicle tax	115	2	103	2
Other heating fuel	192	3	113	2
Other general costs	1,225	18	1,165	20
TOTAL GENERAL COSTS	6,158	91	5,266	90
LAND AND PROPERTY	14,136	210	12,760	218
TOTAL FIXED COSTS	52,215	774	50,487	863

2) Allocate Fixed Costs to the winter wheat crop:

- **Labour:** Paid & unpaid
- **Machinery, fuel & depreciation charges**
- **General Costs:** electricity, water, insurance, bank and professional fees, office costs
- **Land & Property costs:** rent or imputed rent, property repairs and rates

The Complete Net Margin

Winter Wheat	2012/13		2013/14	
	Per Farm	Per Ha	Per Farm	Per Ha
Output	87,659	1,300	79,249	1,354
Variable Costs	36,153	536	30,444	520
Gross Margin	51,506	764	48,804	834
Fixed Costs	52,215	774	50,487	863
Net Margin	-709	-11	-1,683	-29

3) Net Margin= Gross Margin- Fixed Costs

$$\text{£}834 - \text{£}863 = -\text{£}29/\text{ha}$$

A Net Margin for Potatoes

Gross Margin - Ware Potatoes - England

	2012/13		2013/14	
Farms in Sample	88		77	
	Per farm	Per hectare	Per farm	Per hectare
Area per farm (hectares)	16.88		16.10	
Yield (tonnes and tonnes per hectare)	548.2	32.5	637.5	39.6
Price (£ per tonne)	220		144	
OUTPUT (£)				
Crop sold	120,745	7,155	91,742	5,698
Feed used on-farm	61	4	66	4
TOTAL OUTPUT	120,806	7,158	91,808	5,702
VARIABLE COSTS (£)				
Seeds (including homegrown)	11,172	662	12,541	779
Fertilisers	7,844	465	7,466	464
Crop protection	10,471	620	9,300	578
Other crop costs	5,970	354	5,669	352
Drying and heating costs	90	5	83	5
TOTAL VARIABLE COSTS	35,547	2,106	35,059	2,177
GROSS MARGIN (£)	85,259	5,052	56,749	3,525

1) Calculate the **Gross Margin** from:

- Total **output** from crop, including the value of any crop fed to livestock
- Total **variable costs**
- **Output-Variable Costs= Gross Margin**

2) Then calculate the fixed costs...

Ware Potatoes	2012/13		2013/14	
	Per Farm	Per Ha	Per Farm	Per Ha
GROSS MARGIN	85,259	5,052	56,749	3,525
Paid labour	11,632	689	9,586	595
Unpaid labour	2,342	139	2,696	167
TOTAL LABOUR	13,974	828	12,282	763
Contract work	3,468	206	2,730	170
Machinery rental	396	23	412	26
Machinery and equipment repairs	3,948	234	3,395	211
Machinery and vehicle fuel and oils	3,619	214	3,027	188
Machinery depreciation	5,685	337	4,877	303
TOTAL MACHINERY	17,117	1,014	14,442	897
Electricity	396	23	373	23
Water	246	15	364	23
General insurance	517	31	495	31
Bank charges	103	6	87	5
Professional fees	377	22	368	23
Vehicle tax	38	2	44	3
Other heating fuel	75	4	32	2
Other general costs	386	23	379	24
TOTAL GENERAL COSTS	2,138	127	2,144	133
LAND AND PROPERTY	4,323	256	4,217	262
TOTAL FIXED COSTS	37,552	2,225	33,084	2,055

1) Make sure to include any **unpaid** labour costs

2) **Machinery** costs are higher for intensive root crops like potatoes

3) **Land and property** charges are often higher for potato crops- this includes **rental value** of the land

4) Total **fixed costs** are **higher** for potatoes than cereals crops

A Complete Potato Net Margin

Ware Potatoes	2012/13		2013/14	
	Per Farm	Per Ha	Per Farm	Per Ha
Output	120,806	7,158	91,808	5,702
Variable Costs	35,547	2,106	35,059	2,177
Gross Margin	85,259	5,052	56,749	3,525
Fixed Costs	37,552	2,225	33,084	2,055
Net Margin	41,218	2,442	17,782	1,104

2) Explaining the difference in net margin between years...

- 2012-13 was a **poor growing season** and there was a shortage of potatoes so the average price rose to £220/tonne
- 2013/14 was a better year with increased supply so the price **dropped** down to £144/t
- Both **variable and fixed** costs remained similar between years

A per Sow Net Margin

Net Margin	Per farm	Per Sow
	<i>2013/14</i>	<i>2013/14</i>
Average number of sows/ farm	224	224
Output	587,155	2,621
Total variable costs	411,227	1,836
Gross Margin	175,928	785
Paid labour	41,007	183
Unpaid labour	5,685	25
Contract hire	5,125	23
Machinery depreciation	10,165	45
Machinery repairs	9,138	41
Fuel and oil	6,835	31
Electricity and heating fuel	9,954	44
Water	3,473	16
Insurance	4,485	20
Professional fees	3,860	17
General farm costs	3,952	18
Occupiers repairs	9,829	44
Rent and rates	13,367	60
Total fixed costs	126,875	566
Net Margin	49,052	219

- 1) Calculate the **gross margin** using the **total output**:
- Finished pig sales
 - Other Pig related income
 - MINUS herd depreciation/ stock purchases

- And **total variable costs**:
- Concentrates
 - Vet and Medicine costs
 - Other Livestock costs including bedding litter & service fees

- 2) Subtract **fixed costs** (labour, machinery, utilities and land and property charges) for the **net margin**

A Dairy Farm Net Margin- Per Ha

Net Margin	2012/13	2013/14
Average Area (ha)	142	150
	£ per ha	£ per ha
Milk	2410	2816
Calf	122	126
Herd Replacement	-255	-250
Total Dairy Output	2278	2692
Other Output	1040	1028
Total Farm Output	3317	3721
Feed	992	1085
Vet and medicines	102	104
Other livestock costs	248	256
Seed	35	42
Fertiliser	137	137
Crop Protection	37	32
Other Crop Costs	22	22
Total variable costs	1572	1678
Gross Margin	1745	2043
Labour	377	381
Contract	150	171
Machinery Depreciation	189	197
Other machinery costs	211	223
General Farm Costs	283	286
Rent and Rental Equivalent	281	298
Total fixed costs	1491	1556
Net margin	254	486

This net margin looks at the **whole farm profitability**: output includes other farm income (subsidies, diversification, crops), as well as **dairy output**.

Output and **costs** are calculated on a **per ha** basis- this makes comparisons between years and between farms easier

Fixed costs (labour, machinery, utilities and land and property charges are subtracted from the **gross margin** to calculate the **whole farm net margin**