

**CROP
COSTS AND RETURNS
1996**



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CROP MARGINS

Tillage farmers confidence got a welcome boost from the very satisfactory harvest in 1995. Market prospects for grain, particularly malting barley are very good for 1996. The margins given here should provide a useful guide but land suitability, rotation and risk avoidance should also be considered.

The difference in margins between spring and winter cereals has narrowed as a consequence of CAP reform. However, winter wheat well done will continue to be more profitable than other feed cereals. Bonuses for quality will be more important than ever. Margins from beet and potatoes will remain more or less as they were.

The "boxed" gross margins in the tables are achievable under good management and suitable soil conditions.

Margin per acre is influenced substantially (over 50%) by EU aid. Thus area aid for crops and livestock premia must be properly processed.

Costs

Level of yield has a major influence on profitability as can be seen from the gross margin tables which follow.

Wastage of inputs must be eliminated. Decisions on input strategies must be tailored for individual fields and farms. Timeliness and attention to detail in the carrying out of all operations are vital to maintaining profitability in crop production. All costs (direct and fixed) need to be kept to a minimum, consistent with good husbandry practices.

Fixed costs will need closer attention than hitherto. In particular, investments in machinery and land/conacre will need thorough financial appraisal before a decision is taken.

Cereal Crops Margins 1996
Variable Costs inc. VAT (£/Acre)

	Wheat		Feed Barley		Malting Barley	Feed Oats	
	Feed Winter	Milling Spring	Winter	Spring		Winter	Spring
MATERIALS	161	135	132	94	92	123	106
Seed	26	26	22	20	20	22	22
Fertilisers	56	45	46	36	34	46	36
Sprays:							
Herbicides	13	8	13	8	8	11	8
Fungicides	50	46	28	21	21	28	28
Insecticides	13	9	13	9	9	13	9
Growth Reg.	3	1	10	0	0	3	3
HIRE MACHINERY	95	91	91	83	83	91	87
Plough, Till & Sow	38	38	38	38	38	38	38
Spray	16	16	12	8	8	12	12
Fert. Spreading	8	4	8	4	4	8	4
Harvesting	33	33	33	33	33	33	33
MISCELLANEOUS	25	18	21	14	14	21	15
Interest (11%)	11	6	9	4	4	9	5
Transport (£4/ton)	14	12	12	10	10	12	10
TOTAL VAR. COSTS	281	244	244	191	189	235	208
Tons. to cover Var. Costs	2.7	2.2	2.6	2.0	1.6	2.5	2.2
Net Price (£/ton)	105	110	95	95	115	95	95
Aid (£/acre)	111	111	111	111	111	111	111
Straw (£/acre)	35	35	55	45	45	55	45

Gross Margin (£/Acre)

Tonne s/Acre	Wheat		Feed Barley		Malting Barley	Feed Oats	
	Feed Winter	Milling Spring	Winter	Spring		Winter	Spring
2.0	75	122	112	155	197	121	138
2.5	128	177	160	203	255	169	186
3.0	180	232	207	250	312	216	233
3.5	233	287	255			264	
4.0	285	342	302			311	

EXPLANATORY NOTES - CEREAL CROPS

Fixed or Overhead Costs per Acre

Scutch Control £5, Lime £5, Maintenance of Land and Fences, Car, Phone, ESB and regular hired labour? Total £40+. Fixed costs have to be subtracted from gross margin to give income.

Input Costs: Cereals

Seed: £320/t Blue Label

Rate: Wheat - 13 stone, W. Barley & Oats - 11 stone. S. Barley - 10 stone.

Fertiliser:	W. Cereals, 3 bags 0-10-20 @ £135/t	=	£20.25
	W. Wheat 5.5 bags CAN (27.5% N) @ £130/t	=	£35.75
	W. Barley + Oats - 4 bags CAN	=	£26.00
	S. Cereals 3 bags 14-7-14 or 18-6-12 @ £170/t	=	£25.50
	Topdress S. Wheat - 3 CAN	=	£19.50
	S. Oats and S. Barley - 1.5 CAN	=	£ 9.75

Herbicides: Winter - £13/acre; Spring £8/acre

Fungicides: Winter Wheat:

Eyespot + ½ rate B.S. Growth Stage 31-32	=	£20.00	} £50.00/ acre
Broad Spectrum, Growth Stage 37	=	£15.00	
Broad Spectrum, Growth Stage 55-60	=	£15.00	

Spring Wheat:

Eyespot + Morph., Growth Stage 30-32	=	£16.00	} £46.00/ acre
Broad Spectrum, Growth Stage 37-39	=	£15.00	
Broad Spectrum, Growth Stage 55-60	=	£15.00	

Spring Barley: 1.5 Fungicide = £21/acre

Winter Barley & Oats: 2 Fungicides = £28/acre

Insecticides: Winter Cereals; Slug Pellets (£9.00) + Aphicide (£4.00)
Spring Cereals; Leatherjackets £7/acre + aphicide (£2.00)

Growth	W. Wheat + W. & S. Oats; 2.5 pints 46% CCC	=	£3.0/acre
Regulators:	Spring Wheat; 0.75 pints/acre @ £1.3/pint		
	Winter Barley	=	£10.0/acre

Hire	Plough (£15.00), Till (£15.00), Sow (£8.00)	=	£38.00
Machinery:	Spraying	=	£4.00/acre
	W. Wheat: Weeds, Fungicide x 3	=	£16.00
	S. Wheat: Weeds, Fungicide x 3	=	£16.00
	W. Barley: Weeds, Fungicide x 2	=	£12.00
	S. Barley: Weeds + Fungicide, Fungicide	=	£ 8.00
	Oats: Weeds, Fungicide x 2	=	£12.00
	Fertiliser Spreading - Winter Cereals	=	£ 8.00
	(@ £4.00/acre) - Spring Cereals	=	£ 4.00

Interest 11%: Seed + Fertiliser + 0.5 Sprays; Winter - 10 months; Spring 6 months

Non Cereal Crops Margins 1996
Variable Costs inc. VAT (£/Acre)

	Sugar Beet	Peas Batch	Beans		Oilseed Rape		Linseed	Peas Vining
			Winter	Spring	Winter	Spring		
MATERIALS	230	107	90	99	121	84	104	121
Seed	31	45	35	35	12	12	47	75
Fertilisers	100	21	21	21	60	50	33	21
Sprays:								
Herbicides	63	19	7	19	23	7	24	23
Fungicides	14	20	22	22	20	0	0	0
Insecticides	22	2	5	2	6	15	0	2
HIRE MACHINERY	145	101	91	87	121	93	99	54
Plough, Till & Sow	55	38	38	38	38	38	38	38
Roll	0	4	0	0	4	4	4	4
Spray	12	12	16	12	16	12	8	8
Fert. Spreading	8	4	4	4	8	4	4	4
Swathing	0	0	0	0	20	0	0	0
Harvesting	70	43	33	33	35	35	45	0
MISCELLANEOUS	87	15	18	16	20	11	10	9
Interest (11%)	17	5	5	5	9	5	6	6
Transport (£3.5/ton)	70	7	10	8	6	4	4	0
Bird control	0	3	3	3	5	2	0	3
TOTAL VAR. COSTS	462	223	199	202	262	188	213	184
Output to cover var. costs tons/acre	11.8	1.4	1.8	1.8	1.8	1.3	2.4	1.4
Net Price (£/ton)	39	165	112	112	145	145	90	130
Area Aid (£/Acre)		160	160	160	203	203	214	111

Gross Margins (£/Acre)

Tonnes/Acre		Sugar Beet	Peas Batch	Beans		Oilseed Rape		Linseed	Peas Vining
				Winter	Spring	Winter	Spring		
(S. Beet only)	0.50							46	
	0.75							69	
	1.00		102	73	70	86	160	91	
(14)	1.25	84	143	101	98	122	196	114	
(16)	1.50	162	185	129	126	159	233	136	122
(18)	1.75	240	226	157	154	195	269		155
(20)	2.00	318	267	185	182	231	305		187
(22)	2.50	396	350	241	238				252

N.B. Value of beet tops is not included in margin. These could have a grazing value of at least £20/acre.

Explanatory Notes - Non Cereals

	Fertilisers	Interest 11 %
S. Beet	10 bags beet compound + 1 bag CAN	Materials 8 mths.
Peas	3 bags 0-10-20 @ £140/t	Materials 5 mths.
Beans	3 bags 0-7-30 @ £140/t	Materials 6 mths.
Oilseed Rape		Materials 8 mths
Winter	3 bags 10-10-20 + 4 bags Urea + S + B	Materials 6 mths
Spring	3 bags 9-7-23 + 4 bags CAN	
Linseed	3 bags 10-10-20 + 1 bag CAN	Materials 6 mths.

Forage Crops 1996 Variable Costs inc. VAT (£/Acre)

	F. Beet	Swedes	Kale	Rape	Stubble Turnips	Maize
MATERIALS	243	116	62	48	46	138
Seed	40	18	24	12	11	60
Fertilisers	105	50	38	36	35	60
Sprays:						
Herbicides	63	30	0	0	0	12
Fungicides	13	11	0	0	0	0
Insecticides	22	7	0	0	0	6
HIRE MACHINERY	150	68	37	37	37	147
Seedbed	55	48	33	33	33	50
Preparation	12	16	0	0	0	8
Spray	8	4	4	4	4	4
Fert. Spreading	75	0	0	0	0	85
Harvesting + Covering						
TOTAL VAR. COSTS	393	184	99	85	83	285
Green Yield (Tonnes/Acre)						
Leaves (+ Roots)	50	30	15	17	10	20
Dry Matter (Tonnes/Acre)						
Utilised	5.3	2.1	1.5	1.4	1.0	4.5
Cost (£/tonne DM)	74	88	66	61	83	63*

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N.B. Area aid at £105.8/acre in general scheme (£110.91 in Simplified Scheme) may be paid on maize grown on eligible land. In this scenario, the cost of maize DM is £40/tonne approx.

Comment on Forage Crop Costs

Grazed Grass is and will continue to be the cheapest fodder at about £30/tonne DM utilised. It will also produce very good yields in most locations and of course is extremely convenient to produce and utilise.

Grass Silage: First cut grass silage can be produced at reasonable cost £60/tonne. approx. DM utilised. Grass silage costs vary considerably depending on yields. Second and third cut silage are expensive forms of fodder (over £80/t) where machinery has to be hired. Moreover, the variability in yield and quality of second and third cut silage has forced many farmers to consider alternatives such as fodder beet and maize.

Non Grass Silage: The estimated cost per tonne dry matter of silage produced on eligible land is: Arable silage £40, Whole Crop Wheat £54 & Maize £40. These figures compare favourably with grazed grass at around £30/tonne DM utilised and first cut grass silage at £60. On ineligible land the cost per tonne dry matter of silage produced is estimated at £85 for arable silage, £82 for Whole Crop Wheat & £63 for Maize. Fodder Beet roots are estimated to cost £74/tonne DM utilised.

Production from Brassicas such as swedes, kale and rape will not match the main fodder crops. Rape and kale have a reasonable cost at £61 and £66 per tonne of DM utilised respectively. Production from swedes can be quite variable and costs are high.

Maize produces a high yield of quality feed at lower cost than second or third cut grass silage giving improved animal performance. It is convenient as sowing and harvesting are done by contractor. Feeding can be done with existing grass silage facilities. Moreover, there are no rotational constraints and it utilises slurry very efficiently.

Convenience of growing, storing and feeding as well as animal performance are important considerations when deciding which fodder crop to grow.

REPS FOR TILLAGE FARMERS

REPS may add a further £50/acre to the margins in the tables. REPS will play a vital role in maintaining the viability of medium and small scale tillage farmers. REPS constraints on straw burning. P utilisation and the uncultivated field margin will not cause a problem for tillage farmers. However, the restrictions on N application and plant growth regulators will need to be considered.

At an early stage a cost benefit analysis for each farm will be needed. The scale of operation will have a major influence on the outcome. A financial assessment is essential but quality of lifestyle considerations should not be ignored. Crop choice is also important as some crops e.g. spring barley are more suitable than others to the REPS regime.