



CROP

COSTS AND RETURNS

2000

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CROP MARGINS

Margins from combinable crops are set to fall having peaked in 1999 as a result of favourable prices for grain and straw and good weather.

Changes to the Arable Aid Scheme following Agenda 2000 will impact significantly on crop choice for the year 2000. Intervention price for barley from this harvest will drop by £7/tonne. It is anticipated that market prices for cereal feed grains will drop by about £6/tonne. Area aid for cereals will compensate to some extent by increasing by £6.8/acre to £117.7/acre and maize silage will increase by £6.5/acre to £112.3/acre. However, the aid for non-cereal crops and setaside will drop significantly. Linseed is worst hit with a drop of £37.5/acre to £177/acre. Setaside will be paid at the same rate as cereals, a drop of £23/acre. Aid for peas, beans and lupins will drop by £15/acre to £145/acre. Oilseed rape aid is likely to be paid at £173/acre.

The margins given here should provide a useful guide but land suitability, rotation, risk avoidance and convenience should also be considered. There is little difference in margins between spring and winter cereals. However, winter wheat well done (suitable soils/location) will continue to be more profitable than other feed cereals. Bonuses for quality will be more important than ever.

In the case of **malting barley and sugar beet**, the availability of contracts and fulfilment of contract requirements may limit the attainment of these margins.

Margin per acre is influenced substantially by EU aid which may now represent close to 100% of net margin. Thus area aid for crops and livestock premia must be properly processed.

Costs

Level of yield has a major influence on profitability. **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 2000 Variable Costs inc. VAT (£/Acre)

	Wheat		Feed Barley		Malting	Feed Oats	
	Feed Winter	Milling Spring	Winter	Spring	Barley	Winter	Spring
Materials	158	126	142	99	97	121	104
Seed	21	21	20	19	19	20	20
Fertilisers	52	41	43	32	30	43	32
Sprays:							
Herbicides	15	10	15	10	10	12	10
Fungicides	54	44	41	29	29	30	30
Insecticides	13	9	13	9	9	13	9
Growth Reg.	3	1	10	0	0	3	3
Hire Machinery	95	95	91	91	91	91	91
Plough, Till, Sow	38	38	38	38	38	38	38
Spray	16	16	12	12	12	12	12
Fert., Spreading	8	8	8	8	8	8	8
Harvesting	33	33	33	33	33	33	33
Miscellaneous	21	15	18	12	12	18	12
Interest (10%)	10	5	8	4	4	8	4
Transport (£3/tonne)	11	10	10	8	8	10	8
Total Variable Costs	274	236	251	202	200	230	207
Tons. to cover Variable costs	3.5	2.7	3.4	2.7	2.3	3.1	2.8
Net Price (£/ton)	78	88	74	74	88	74	74
AID (£/Acre)	117	117	117	117	117	117	117
Straw (£/Acre)	30	25	40	35	35	40	35

Gross Margin (£/Acre)

Tons/Acre	Wheat		Feed Barley		Malting Barley	Feed Oats	
	Feed Winter	Milling Spring	Winter	Spring		Winter	Spring
2.00	29	82	54	98	128	75	93
2.50	68	126	91	135	172	112	130
2.75	88	148	110	154	194	131	149
3.00	107	170	128	172	216	149	167
3.25	127	192	147	191	238	168	186
3.50	146	214	165	209	260	186	
3.75	166	236	184			205	
4.00	185		202				

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.

VAT included on inputs at 21% where appropriate and at 4.2% on output.

Input Costs: Cereals

Seed:	£315/t Blue Label	
Rate:	Wheat - 10.5 stone; W. Barley & Oats - 10 stone; S. Barley - 9.5 stone	
Fertiliser:	W. Cereals, 3 bags 0-10-20 @ £140/t	= £21.00
	W. Wheat 5.5 bags CAN (27.5% N) @ £110/t	= £30.25
	W. Barley + Oats - 4 bags CAN	= £22.00
	S. Cereals 3 bags 14-7-14 or 18-6-12 @ £160/t	= £24.00
	Topdress S. Wheat - 3 CAN	= £16.50
	S. Oats and S. Barley - 1.5 CAN	= £ 8.25
Herbicides:	Winter - £15/acre; Spring £10/acre	
Fungicides:	<u>Winter Wheat:</u>	
	T1: Eyespot + red rate B.S. Growth Stage 31-32	= £20.00
	T2: Broad Spectrum or Strob. Growth Stage 37-39	= £18.00
	T3: Strob., Growth Stage 55-60	= £16.00
		54
	<u>Spring Wheat:</u>	
	T1: ½ rate (B.S. + Morph.), Growth Stage 30-32	= £10.00
	T2: Broad Spectrum or Strob. Growth Stage 37-39	= £18.00
	T3: Strob. Growth Stage 55-60	= £16.00
		44
	<u>Spring Barley:</u> T1: Red. rate (Triazole + mildewcide); T2 : Strob.	= £29
	<u>Winter Barley:</u> 3 Fungicides	= £41/acre
	<u>Oats:</u> Alto at T1 +T2, Allegro at T3 gs37-55	= £30/acre
Insecticides:	Winter Cereals; Slug Pellets (£9.00) + Aphicide (£4.00)	
	Spring Cereals: Leatherjackets £7/acre + Aphicide (£2.00)	
Growth Regulators:	W. Wheat _ W. & S. Oats; 2.5 pints 46% CCC	= £3.0/acre
	Spring Wheat; 0.75 pints/acre @ £1.3/pint	
	Winter Barley	= £10.0/acre
Hire Machinery:	Plough (£15.00), Till (£15.00), Sow (£8.00)	= £38.00
	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 (@ £4.00/acre)	= £ 8.00
Interest 10%:	Seed + Fertiliser + 0.5 Sprays; Winter - 10 months; Spring 6 months	

Non Cereal Crop Margins 2000 Variable Costs inc. VAT (£/Acre)

	Sugar Beet	Peas	Beans		Oilseed Rape		Linseed	Grass Seed
			BATCH	Winter	Spring	Winter		
Materials	207	131	98	95	143	80	52	101
Seed	31	47	30	30	13	15	15	20
Fertilisers	84	21	21	21	71	52	20	40
Sprays:								
Herbicides	60	38	7	20	28	0	17	25
Fungicides	12	23	28	23	25	0	0	14
Insecticides	20	2	5	2	6	15	0	2
Hire Machinery	149	101	91	87	125	93	89	141
Plough, Till & Sow	55	38	38	38	38	38	38	38
Roll	0	4	0	0	4	4	4	4
Spray	16	12	16	12	16	12	8	12
Fertiliser	8	4	4	4	12	4	4	12
Spreading								
Swathing	0	0	0	0	20	0	0	0
Harvesting	70	43	33	33	35	35	35	75
Misc.	70	13	15	12	17	8	4	8
Interest (10%)	10	5	4	3	7	3	2	5
Transport (£3/ton)	60	5	8	6	5	3	2	3
Bird Control	0	3	3	3	5	2	0	0
Total Var Costs	426	245	204	191	282	179	145	250
Output to cover var. costs tons/acre	11	1.4	2.3	2.2	2.5	1.6	1.8	0.6
Net Price (£/ton)	39	171	88	88	115	115	80	400
Area Aid (£/acre)	0	145	145	145	173	173	177	0

Gross Margins (£/Acre)

Tonnes/Acre	Sugar Beet	Peas Batch	Beans		Oilseed Rape		Linseed	Grass Seed
			Winter	Spring	Winter	Spring		
S. Beet Only	0.50					52	72	-50
	0.75					80	92	50
	1.00	71	29	42	6	109	112	150
(14)	1.25	120	114	51	64	35	138	250
(16)	1.50	198	157	73	86	64	167	350
(18)	1.75	276	199	95	108	92	195	450
(20)	2.00	354	242	117	130	121	224	
(22)	2.50	432	328	161	174			

N.B. Value of beet tops is not included in margin. These could have a grazing value of at least £20/acre. Value of hay (£30/acre) is not included in grass seed margin.

Explanatory Notes - Non Cereals

	Fertilisers	Interest 10%
S. Beet	9 bags beet compound + bag CAN	Materials 7 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	Winter 3 bags 10-10-20 + 4 bags Urea + S + B	Materials 7 mths
	Spring 3 bags 9-7-23 + 4 bags CAN	Materials 5 mths
Linseed	2.5 bags 18-6-12	Materials 6 mths
Grass Seed	3 bags 10 - 10 -20 + 2.5 bags CAN	Materials 8 mths

Forage Crops 2000 Variable Costs inc. VAT (£/Acre)

	F. Beet	Swedes	Kale	Rape	Stubble Turnips	Maize
Materials	233	114	60	46	44	130
Seed	40	18	24	12	11	60
Fertilisers	98	48	36	34	33	50
Sprays:						
Herbicides	60	30	0	0	0	10
Fungicides	13	11	0	0	0	0
Insecticides	22	7	0	0	0	10
Hire Machinery	154	60	37	37	37	152
Seedbed Preparation	55	48	33	33	33	50
Spray	16	8	0	0	0	8
Fertiliser Spreading	8	4	4	4	4	4
Harvesting + Covering	75	0	0	0	0	90
Total Var. Costs	387	174	97	83	81	282
Green Yield (Tons/Acre)						
Leaves (+roots)	50	30	15	17	10	20
Dry Matter (Tons/Acre)						
Utilised	5.3	2.1	1.5	1.4	1.0	5.0
Cost (£/ton DM)	73	83	65	59	81	56

* **N.B.** Area aid at £112/acre may be paid on maize grown on eligible land. In this scenario, the cost of maize DM is £34/tonne approx. Covering with plastic will increase yield by 1.5 tonnes DM/acre approx. and improve quality. Extra cost is about £100/acre.

Comment on Forage Crops 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 costs – approximately £60/tonne 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 maize and fodder beet.

Non Grass Silage: The estimated cost per tonne dry matter of silage produced on eligible land is: Arable silage and Whole Crop Wheat £43; Maize £34. 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 £90 for arable silage, £73 for Whole Crop Wheat & £56 for Maize. Fodder Beet roots are estimated to cost £73/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 £59 and £65 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 costs 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.



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