

Crop

Costs and Returns

1994

Compiled by : Jim O'Mahony, Crop Specialist, Kildalton College.
October, 1993.

CROP MARGINS

The 1994 Area Aid for cereals and Set Aside payments are considerably increased. Thus, it is imperative that you re-evaluate your cropping plans and set aside strategy. The difference in margins between spring and winter cereals has narrowed somewhat 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. Beans will be the most profitable crop in the scheme. Margins from beet, and potatoes will remain more or less as they are.

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

Overall farm income will be influenced substantially by margin per acre but EC aid, including area aid for crops and livestock premia should also be considered.

Costs

The cost of growing an acre of cereals is quite similar for all farmers but the yield is very variable depending on management and on soil type. From the gross margin table it is clear that level of yield has a major influence on profitability.

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 overhead) 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.

The main changes to the EC Arable Scheme and their implications are summarised on the back cover.

CEREAL CROP MARGINS 1994

VARIABLE COSTS INC. VAT (£/ACRE)							
	Wheat		Feed Barley		Malting Barley	Feed Oats	
	Feed Winter	Milling Spring	Winter	Spring		Winter	Spring
MATERIALS	139	116	116	83	82	112	94
Seed	26	26	22	20	20	22	22
Fertilisers	47	37	39	29	29	39	31
Sprays:							
Herbicides	11	7	11	7	7	11	7
Fungicides	40	37	24	19	19	25	25
Insecticides	12	8	12	8	8	12	8
Growth Regulators	3	1	9	0	0	3	3
HIRE MACHINERY	84	78	81	74	74	81	78
Plough, Till and Sow	35	35	35	35	35	35	35
Spray	14	11	11	7	7	11	11
Fertiliser Spreading	6	3	6	3	3	6	3
Harvesting	29	29	29	29	29	29	29
MISCELLANEOUS	20	14	18	12	12	18	12
Interest (11%)	10	5	8	4	4	8	4
Transport (£3/Tonne)	10	9	10	8	8	10	8
TOTAL VARIABLE COSTS	243	208	217	169	168	211	184
Tonnes to Cover Variable Costs	2.6	2.1	2.6	2.1	1.7	2.6	2.4
Net Price (£/Tonne)	92	97	83	82	100	82	82
AID/STRAW (£/Acre)	84	84	104	104	104	104	104

Gross Margins (£/Acre)

Tonnes/ Acre	Wheat		Feed Barley		Malting Barley	Feed Oats	
	Feed Winter	Milling Spring	Winter	Spring		Winter	Spring
2.0	25	70	53	99	136	57	84
2.5	71	119	95	140	186	98	125
3.0	117	167	136	181	236	139	166
3.5	163	216	178			180	
4.0	209	264	219			221	

Explanatory Notes - Cash 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 £30+. 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 and Oats - 11 stone. Spring Barley - 10 stone.

Fertiliser: Winter Cereals. 3 bags 0-10-20 @ £120/t=£18.00
 Winter Wheat. 5.5 bags CAN (27.5%) N @ £105/t = £28.90
 Winter Barley + Oats - 4 bags CAN + £21
 Spring Cereals. 3 bags 14-7-14 or 18-6-12 @ £142/t= £21.30
 Topdress Spring Wheat - 3 CAN = £15.80
 Spring Oats and Spring Barley - 1.5 CAN = £7.90

Herbicides: Winter - £11/acre; Spring £7/acre

Fungicides: Winter Wheat:
 Sportak, + Bravo, Growth Stage 31-32 £16.00
 Broad Spectrum, Growth Stage 37 £12.00 £40/acre
 Broad Spectrum, Growth stage 55-60 £12.00
Spring Wheat:
 Sportak, Growth Stage 30-32 £7.00
 Broad Spectrum Growth Stage 37-39 £15.00 £37/acre
 Broad Spectrum Growth Stage 55-60 £15.00
Spring Barley 1.5 Fungicide = £19/acre
Winter Barley & Oats 2 Fungicides £25/acre

Insecticides: Winter Cereals: Slug Pellets (£8.00) + Aphicide (£4.00)
 Spring Cereals: Leatherjackets £6/acre + aphicide £2.00)

Growth
 Regulators: W. Wheat + Winter & Spring Oats: 2.5 pints 46% CCC £3.0/acre
 Spring Wheat: 0.75 pints/acre @ £1.0/pint
 Winter Barley £9/acre

Hire
 Machinery: Plough (£14.00), Till (£14.00), Sow (£7.00) = £35.00
 Spraying: £3.50/acre
 Winter Wheat: Weeds, Sportak + CCC, 2 X Broad Spectrum = £14.00
 Spring Wheat : Weeds, Sportak + CCC, Broad Spectrum = £10.50
 Winter Barley : Weeds, Disease, Broad Spectrum = £10.50
 Spring Barley : Weeds + Disease = £ 7.00
 Oats: Weeds, Disease x 2 = £10.50
 Fertiliser Spreading - Winter Cereals = £ 6.00
 (@ £3.00/acre) - Spring Cereals = £ 3.00

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

NON-CEREAL CROP MARGINS 1994

Variable Costs Inc. VAT (£/Acre)

	<i>Sugar Beet</i>	<i>Peas</i>	<i>Beans</i>		<i>Oilseed Rape</i>		<i>Linseed</i>	<i>Grass Seed</i>
			<i>Winter</i>	<i>Spring</i>	<i>Winter</i>	<i>Spring</i>		
MATERIALS	196	101	85	96	114	78	99	89
Seed	20	45	35	40	12	12	47	20
Fertilisers	86	18	18	18	56	47	30	41
Sprays:								
Herbicides	60	17	6	17	22	6	22	17
Fungicides	10	19	21	19	19	0	0	11
Insecticides	20	2	5	2	5	13	0	0
HIRE MACHINERY	120	87	81	78	107	83	88	111
Plough, Till and Sow	48	35	35	35	35	35	35	35
Roll	0	3		0	3	3	3	3
Spray	11	11	14	11	14	11	7	7
Fertiliser Spreading	6	3	3	3	6	3	3	6
Swathing	0			0	18	0	0	0
Harvesting	55	35	29	29	31	31	40	60
MISCELLANEOUS	68	12	16	12	18	9	8	12
Interest (11%)	8	5	6	4	8	4	5	7
Transport (£3/Tonne)	60	5	8	6	5	3	3	5
Bird Control	0	2	2	2	5	2	0	0
TOTAL VARIABLE COSTS	384	200	182	186	239	170	195	212
Output to Cover Variable Costs (Tonnes/Acre)	10.1	1.9	2.1	2.1	1.8	1.3	2.2	0.4
Net Price (£/Tonne)	38	105	87	87	130	130	90	600
AREA AID/HAY (£/Acre)		156	156	156	198	198	200	30

Gross Margins (£/Acre)

<i>Tonnes/Acre</i>	<i>Sugar Beet*</i>	<i>Peas</i>	<i>Beans</i>		<i>Oilseed Rape</i>		<i>Linseed</i>	<i>Grass Seed</i>
			<i>Winter</i>	<i>Spring</i>	<i>Winter</i>	<i>Spring</i>		
0.50							50	118
0.75							73	268
1.00		61	61	37	89	158	95	418
1.25	148	87	83	79	122	191	118	568
1.50	224	111	105	101	154	223	140	
1.75	300	140	126	122	187	256		
2.00	376	160	148	144	219	288		
2.50	452	219	192	188				

* Sugar Beet; 14, 16, 18, 20, 22 tonnes/acre respectively.

Inputs : Non Cereals

	Fertilisers	Interest 11%
S. Beet	10 bags beet compound + 1 bag CAN	Materials 8 months
Peas	3 bags 0-10-20	Materials 5 months
Beans	3 bags 0-7-30	Materials 6 months
Oilseed Rape		
- Winter	3 bags 10-10-20 + 4 bags Urea + S&B	Materials 8 months
- Spring	3 bags 9-7-23 + 4 bags CAN	Materials 6 months
Grass Seed	3 bags 10-10-20 + 2.5 bags CAN	Materials 8 months
Linseed	3 bags 10-10-20 + 1 bag CAN	Materials 6 months

Comment on Forage Crop Costs

Grazed grass is and will continue to be by far the cheapest fodder at £26/tonne DM utilised. It will also produce very good yields in most locations and of course is extremely convenient to produce and utilise.

First cut grass silage and maize can be produced at reasonable cost - £57 and £60/tonne DM utilised respectively.

Grass silage costs vary considerably depending on yields. Second (£84/t) and third (£86/t) cut silage are the most expensive forms of fodder considered 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.

Production from Brassicas such as swedes, kale and rape will not match the main fodder crops. Rape and kale have a reasonable cost at £49 and £55 per tonne of DM utilised respectively. Production from swedes can be quite variable and costs are high.

Feed barley and beans can be produced on eligible land and stored with acid treatment at a competitive price of £56/tonne utilised DM. The ex store price of bought in dried feed grain is expected to be £125/tonne DM in 1994.

The high yield of dry matter from fodder beet (£65/tDM) makes it attractive where the technology to produce high yields is available, particularly where land is rented.

FORAGE CROPS 1994

Variable Costs Inc. VAT (£/Acre)

	<i>F. Beet</i>	<i>Swedes</i>	<i>Kale</i>	<i>Rape</i>	<i>Stubble Turnips</i>	<i>Maize</i>
MATERIALS	217	98	50	35	34	129
Seed	37	15	21	8	7	57
Fertilisers	90	40	29	27	27	57
Sprays						
Herbicides	60	28	0	0	0	10
Fungicides	10	9	0	0	0	0
Insecticides	20	6	0	0	0	5
HIRE MACHINERY	130	65	33	33	33	139
Seedbed Preparation	48	48	30	30	30	45
Spray	11	14	0	0	0	7
Fertiliser Spreading	6	3	3	3	3	4
Harvesting + Covering	65	0	0	0	0	80
TOTAL VARIABLE COSTS	347	163	83	68	67	268
<u>Green Yield</u> (Tonnes/Acre)						
Leaves (+ Roots)	50	30	15	17	10	20
<u>Dry Matter</u> (Tonnes/Acre)						
Utilised	5.3	2.1	1.5	1.4	1.0	4.5
Cost (£/Tonne DM)	65	78	53	49	67	60

Comment on Forage Crop Costs continued.

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.

CHANGES TO EC ARABLE REGIME FOR 1994

The "EC Arable Regime" for 1994 is largely similar to the regime for 1993 with some significant changes. The four main areas where changes have been made are: (1) The Application, (2) Payments, (3) Eligible Crops for Aid and (4) Set Aside.

The Application

The closing date for receipt of completed Area Aid Forms will be significantly earlier, i.e. 31/3/94. Every application will have to be accompanied by a 25 inch map (scale 1:2500). However, a digitilised (computerised) map will be accepted provided it gives the Ordinance Survey Reference, Scale and plot size.

Get 25 inch maps for land farmed. Organise conacre and cropping plans early.

Payments

Area Aid payments for cereals have increased by 40% to £84.08 per acre but area aid for oilseeds and proteins remain the same unless the green rate changes. The green rate that will apply in that applicable on 1/7/94. Set aside payment has increased by 26.7% to £136.94 per acre.

The new rates increase the proportion of income arising from EC payments, and improve the profitability of spring cereals relative to winter cereals. The increased payments make it attractive to be in the "general scheme" and set aside land even at 50 acres of cereals. Teagasc advisers have a computerised model to help you decide on which scheme is appropriate and whether to opt rotational or non-rotational set aside.

Eligible Crops

Linseed is now included for area aid under the same rules at cereals. Unfortunately, the aid is likely to be reduced to approx. £200 per acre. The rate will not be fixed until the price fixing in 1994.

Linseed area has to be taken into account when calculating set aside payments.

Set Aside

Non-Rotational (permanent) set aside is now possible. The same plot of land must be set aside for at least 5 years from the 15/1/94. The set aside requirement is 20% of the total area on which a farmer applies for arable aid, including set aside. A farmer will be able to opt out of non-rotational set aside at the end of 1993/94 without penalty because of uncertainty over the rules this year.

Rotational set aside is available at 15%. The set aside period will be from 15/1/94 to 31/8/94. The green cover must be cut once from 15/7/94 to 15/8/94. The cuttings must not be removed from the land and turning or bailing of cuttings is not permitted.

The non-rotational option may be useful where an appropriate poor plot(s) of ground can be used thus possibly avoiding the constraint of rotational set aside. It also gives flexibility to farmers with a livestock enterprise. The possibility of using slurry or FYM on this poor ground could be attractive and could improve the ground.