



THE AGRICULTURAL BUDGETING & COSTING BOOK

Interim Update - July 2008

The following information is published as an interim update between the 66th (May 2008) and 67th (November 2008) Editions of the ABC book. It is designed to aid those preparing budgets for the 2009 year in these times of unprecedented volatility in output and input costs. The information was prepared in late July 2008, and contains the author's best estimates of likely future price levels at that point in time. We hope you find it useful, and would welcome any comments you may have on the update.

Richard King
Editor
25th July 2008

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Additional cost information is provided in Section 3 of this Supplement. However, the largest changes in costs for most enterprises from the last Edition of the ABC Book is related to the increase in fertiliser prices. Below therefore are set out the assumptions that lie behind the fertiliser costs in the margins that follow;

	<u>£ per kg*</u>	<u>Product</u>	<u>£ per tonne</u>
N	1.12	Ammonium Nitrate (34.5%)	385
P	1.45	Triple Super Phosphate (46%)	675
K	1.00	Muriate of Potash (60%)	600

* per kg of active ingredient.

UNIT COSTS OF PRODUCTION - 2009

It is becoming increasingly common to calculate the total cost of producing a tonne of crop. This brings in the 'fixed costs' associated with the cereals enterprise to show the total cost. Unit costs of production can then be easily compared against price to gauge profitability, and also other farms for the purposes of comparative analysis.

The figures below are based on the average output and variable cost information for three main combinable crops - drawn from the following margins. The fixed (overhead) costs data is from the whole farm figures in Section 3 relating to Cereals Farms (large size group). However, all such figures can only be very general guides and actual results are likely to vary greatly between farms. Individual businesses should use historical data to compile unit cost figures. More fixed cost data can be found in Section 3 of this update.

	FEED		MALTING		WINTER	
	WINTER WHEAT	WINTER BARLEY	WINTER WHEAT	WINTER BARLEY	OILSEED RAPE	OILSEED RAPE
	£ per Ha	£ per tonne	£ per Ha	£ per tonne	£ per Ha	£ per tonne
Yield - tonnes per Ha	<i>8.90</i>		<i>6.30</i>		<i>3.50</i>	
OUTPUT	1157	130.0	977	155.0	1050	300.0
VARIABLE COSTS	475	53.4	378	60.0	484	138.3
GROSS MARGIN	682	76.6	598	95.0	566	161.7
Labour	150	16.9	150	23.8	150	42.9
Power and Machinery	245	27.5	245	38.9	245	70.0
General Overheads	115	12.9	115	18.3	115	32.9
OVERHEAD COSTS	510	57.3	510	81.0	510	145.7
<i>COSTS PER TONNE</i>		<i>110.7</i>		<i>141.0</i>		<i>284.0</i>
PROFIT BEFORE RENT AND FINANCE	172	19.3	88	14.0	56	16.0
Rent and Finance Charges	155	17.4	155	24.6	155	44.3
NET MARGIN	17	1.9	-67	-10.6	-99	-28.3
Net Single Payment	210	23.6	210	33.4	210	60.0
FARM MARGIN	227	25.5	143	22.7	111	31.7

Labour: excludes any imputed charge for farmer's and farmer's family manual labour. This would add £40 per hectare to costs (equivalent to £4.50 per tonne on wheat).

Power and Machinery: includes depreciation and repairs on machinery and equipment (but not buildings), plus electricity, fuel and contracting.

General Overheads: land and building repairs, plus water, office costs etc...

Rent and Finance: likely to be very variable between businesses. Figure above assumes a full rent is paid on all land.

Net Margin: this is the return to farmer's invested capital, management time and manual labour. It is the return from growing the crop.

Single Payment: assumes that Arable Area Payments have been claimed on all the combinable crop land during the reference period.

FEED WINTER WHEAT

		£ per Ha	per Ac
Yield	8.90t (3.6t) @ £130/tonne	1157	468
OUTPUT		1157	468
Seed	330/sq m, 145kg (59kg) @ £0.29/kg	43	17
Fertiliser	165N:40P:45K kg (132:32:36 units)	288	116
Chemicals	.....	130	53
Sundries	.....	15	6
VARIABLE COSTS		475	192
GROSS MARGIN		682	276

Yield: assumes first wheat after a non-cereals break crop.

Price: estimated average ex-farm selling price for feed wheat from the 2009 harvest, ranging from £123-£125 per tonne at harvest to £132-£138 in May 2010. The price level shown is based on futures prices for harvest 2009 - adjusted by the author. With global stock level still low, and only marginal rebuilding after harvest 2008 assumed, it is thought that higher grain prices should persist into the 2009 harvest season. There is potential downside if the global economy goes into a serious downturn causing demand to drop, or harvest in 2008 and 2009 are higher than predicted.

Straw: yields 3.0-4.0 tonnes per hectare (1.2-1.6 tonnes per acre), worth £15-£25 per tonne if baled rather than incorporated. This output is not included in the margin..

Seed: assumes 60% Home Saved Seed costing £275 per tonne including cleaning, dressing, sacks, and BSPB wheat levy of £34.06 per tonne. Purchased seed (C2) with single-purpose dressing at £330 per tonne. Seed rate will be higher for later plantings.

Fertiliser: if straw is removed, potash dressing should be increased by about 50kg per hectare (40 units per acre). Rate assumes all crop requirements are met by purchased fertiliser.

Chemicals: the range in costs can be very wide, depending on rotation, soil-type, weed and disease burden, weather etc... Figure covers general herbicide, fungicide, insecticide, and growth regulator, plus an allowance for part treatment of wild oats/black grass/couch grass.

Sundries: includes marketing costs, weighbridge charges, levies and in-store chemicals.

SENSITIVITY

PRICE X YIELD

Assuming constant VARIABLE COSTS of £475 per hectare for yields from 6.9 to 9.9 tonnes; for yields 10.5 and 11 tonnes fertiliser rates are increased to 175N 50P 55K kg and 190N 60P 65K kg, per hectare respectively, and spray costs rise to £137 and £143 per hectare respectively.

YIELD TONNES PER HECTARE

	6.9	7.4	7.9	8.4	8.9	9.4	9.9	..	10.5	11.0	
	Gross Margins £ Per Hectare										
	215	265	315	365	415	465	515	..	575	625	
	284	339	394	449	504	559	614	..	680	735	
PRICE	120	353	413	473	533	593	653	713	..	785	845
£ PER	130	422	487	552	617	682	747	812	..	890	955
TONNE	140	491	561	631	701	771	841	911	..	995	1065
	150	560	635	710	785	860	935	1010	..	1100	1175
	160	629	709	789	869	949	1029	1109	..	1205	1285
	170	698	783	868	953	1038	1123	1208	..	1310	1395

MILLING WINTER WHEAT

					£ per Ha	per Ac
Yield	8.30t (3.4t) @	£145/tonne	.....	.....	1204	487
OUTPUT					1204	487
Seed	340/sq m, 150kg (61kg) @	£0.32/kg	.....		48	19
Fertiliser	185N:50P:45K kg (148:40:36 units)		.....		325	131
Chemicals	.....	.....	.....	.....	148	60
Sundries	.....	.....	.....	.....	15	6
VARIABLE COSTS					535	217
GROSS MARGIN					668	270

Yield: based on an average 7% reduction on the Group 4 feed wheat yield (yield differentials have narrowed in recent years). The proportion of the UK crop growing milling varieties (Group 1 and 2) fell for the 2007 harvest to around 34%. The proportion of milling wheats had been growing in recent years, but premiums have been low for a number of seasons.

Price: estimated average ex-farm selling price for milling wheat from the 2009 harvest during the August 2009 to April 2010 selling period. Based on an average premium of £15 per tonne over feed wheat - some reduction in premiums from current levels are expected. Group 2 milling wheats will achieve lower premiums than Group 1, but should have higher compensating yields. Care needs to be taken to achieve milling specifications - use sensitivity table to arrive at margin for crops not meeting quality standards.

Straw: yields 3.0-4.0 tonnes per hectare (1.2-1.6 tonnes per acre) worth £15-£25 per tonne.

Seed: assumes 50% Home Saved Seed. Purchased seed at £350 per tonne including dressing.

Fertiliser: if straw is removed, potash dressing should be increased by about 50kg per hectare (40 units per acre). No allowance made for late application of Nitrogen to breadmaking varieties to boost protein content - around 40kg per hectare (32 units per acre).

Chemicals: covers general herbicide, fungicide and growth regulator, plus an allowance for part treatment of wild oats/black grass/couch grass. It has been assumed that milling wheats will require higher levels of all inputs than feed varieties - however, this is not the case in all situations.

SENSITIVITY

PRICE X YIELD

Assuming constant VARIABLE COSTS of £535 per hectare for yields from 6.7 to 9.1 tonnes; for yields 9 and 9.5 tonnes fertiliser rates are increased to 205N 60P 55K kg and 220N 70P 65K kg, per hectare respectively, and spray costs rise to £154 and £160 per hectare respectively.

	YIELD TONNES PER HECTARE										
	6.7	7.1	7.5	7.9	8.3	8.7	9.1	..	9.0	9.5	
	Gross Margins £ Per Hectare										
	235	281	327	373	419	465	511	..	500	557	
	302	352	402	452	502	552	602	..	590	652	
PRICE	135	369	423	477	531	585	639	693	..	680	747
£ PER	145	436	494	552	610	668	726	784	..	770	842
TONNE	155	503	565	627	689	751	813	875	..	860	937
	165	570	636	702	768	834	900	966	..	950	1032
	175	637	707	777	847	917	987	1057	..	1040	1127
	185	704	778	852	926	1000	1074	1148	..	1130	1222

FEED WINTER OATS

		<i>£ per Ha</i>	<i>per Ac</i>
Yield	6.75t (2.7t) @ £120/tonne.....	810	328
OUTPUT		810	328
Seed	300/sq m, 155kg (63kg) @ £0.32/kg	49	20
Fertiliser	110N:40P:45K kg (88:32:36 units)	226	92
Chemicals	.....	60	24
Sundries	.....	12	5
VARIABLE COSTS		347	141
GROSS MARGIN		463	187

Price: estimated average ex-farm selling price for feed oats from the 2009 harvest, ranging from £112-£115 per tonne at harvest to £120-£125 in April 2010. Feed oats are not widely marketed as much of the production is used on-farm. For milling quality oats add around £10 per tonne (see sensitivity table below). Around half the UK crop goes for milling. Growing costs will be similar whether milling or feed - use sensitivity table below to adjust sale price. There are number of niche outlets providing higher returns - particularly 'conservation grade' (low input) oats for human consumption. Oats are not eligible for intervention. Prices for milling oats over the last 3 years can be seen in Section 10.

Seed: assumes 50% Home Saved Seed; including cleaning, dressing, sacks, and BSPB oats levy of £30.97 per tonne. Purchased seed at £375 per tonne including dressing.

Straw: yields 3-4.5 tonnes per hectare (1.2-1.8 tonnes per acre) worth £25-£35 per tonne.

Fertiliser: if straw is removed, potash dressing should be increased by about 65kg per hectare (52 units per acre). Nitrogen applications must be limited due to risk of lodging.

Chemicals: general herbicide, fungicides, insecticide, and growth regulator.

Sundries: includes marketing costs, weighbridge charges, levies (HGCA cereal levy 40p per tonne estimated until June 2009) and in-store chemicals.

General: their agronomic characteristics make oats a possible alternative to second or third wheats, or winter barleys. Oats should be ready to harvest slightly before wheat, but crops that have lodged

SENSITIVITY

PRICE X YIELD

Assuming constant VARIABLE COSTS of £347 per hectare for yields from 4.75 to 7.75 tonnes; for yields 8 and 8.5 tonnes fertiliser rates are increased to 120N 55P 60K kg and 140N 60P 65K kg, per hectare respectively, and spray costs rise to £63 and £66 per hectare respectively.

YIELD TONNES PER HECTARE

	4.8	5.3	5.8	6.3	6.8	7.3	7.8	..	8.0	8.5	
	<i>Gross Margins £ Per Hectare</i>										
	80	125	170	215	260	305	350	..	373	418	
	100	128	178	228	278	328	378	428	..	453	503
PRICE	110	175	230	285	340	395	450	505	..	533	588
£ PER	120	223	283	343	403	463	523	583	..	613	673
TONNE	130	270	335	400	465	530	595	660	..	693	758
	140	318	388	458	528	598	668	738	..	773	843
	150	365	440	515	590	665	740	815	..	853	928
	160	413	493	573	653	733	813	893	..	933	1013

MALTING WINTER BARLEY

					£ per Ha	per Ac
Yield	6.30t (2.5t) @ £155/tonne .....			.....	977	395
OUTPUT					977	395
Seed	345/sq m, 145kg (59kg) @ £0.33/kg .....			.....	48	19
Fertiliser	115N:40P:45K kg (92:32:36 units) .....			.....	232	94
Chemicals	.....	.....	.....	.....	87	35
Sundries	.....	.....	.....	.....	12	5
VARIABLE COSTS					378	153
GROSS MARGIN					598	242

Yield: based on a 8-10% reduction in yield from feed winter barley. In most years around two-thirds of barley plantings are to varieties that had some malting potential. Not all crops will meet the required quality standards and a large proportion of potential malting crops go for feed use - this can be adjusted for by using sensitivity tables below.

Price: estimated average ex-farm selling price for malting barley from the 2009 harvest during the July 2009 to Feb 2010 selling period. Based on contract prices on offer at summer 2008. After being low for a number of seasons, malting premiums have recently recovered due to a shortage of malting barley on world markets. If poor quality results in premium prices not being obtained margins will be low (see sensitivity table below).

Straw: yields 2.5-3.0 tonnes per hectare (1.0-1.4 tonnes per acre) worth £25-£35 per tonne.

Seed: assumes 40% Home Saved Seed costing £310 per tonne including cleaning, dressing, sacks, and BSPB barley levy of £33.06 per tonne. Purchased seed (C2) with single-purpose dressing at £350 per tonne.

Fertiliser: if straw is removed, potash dressing should be increased by about 55kg per hectare (44 units per acre). Nitrogen applications need to be carefully judged to ensure grain nitrogen content is suitable for the target market.

Chemicals: covers herbicide, insecticide and fungicide.

Sundries: includes marketing costs, weighbridge charges, levies (HGCA cereal levy 40p per tonne estimated until June 2009) and in-store chemicals.

SENSITIVITY

PRICE X YIELD

Assuming constant VARIABLE COSTS of £378 per hectare.

	YIELD TONNES PER HECTARE									
	4.7	5.1	5.5	5.9	6.3	6.7	7.1	7.5	7.9	
	Gross Margins £ Per Hectare									
	125	209	259	309	359	409	459	509	559	609
	135	256	310	364	418	472	526	580	634	688
PRICE	145	303	361	419	477	535	593	651	709	767
£ PER	155	350	412	474	536	598	660	722	784	846
TONNE	165	397	463	529	595	661	727	793	859	925
	175	444	514	584	654	724	794	864	934	1004
	185	491	565	639	713	787	861	935	1009	1083
	195	538	616	694	772	850	928	1006	1084	1162

MALTING SPRING BARLEY

					£ per Ha	per Ac
Yield	5.25t (2.1t) @ £165/tonne	.....	.....	.....	866	351
OUTPUT					866	351
Seed	380/sq m, 165kg (67kg) @ £0.35/kg	.....			59	24
Fertiliser	95N:30P:45K kg (76:24:36 units)	.....			195	79
Chemicals	.....	.....	.....	.....	74	30
Sundries	.....	.....	.....	.....	9	4
VARIABLE COSTS					336	136
GROSS MARGIN					530	214

Yield: based on a 8% reduction in yield from feed spring barley.

Price: estimated average ex-farm selling price for malting barley from the 2009 harvest. Spring malting barley is likely to command a higher premium than winter varieties due to its superior quality. See previous margin for more details of winter malting barley.

Subsidy: with decoupling of support there is no longer any aid specifically attached to the growing of cereals crops - see Section 4 for details of Single Payment.

Straw: yields 1.5-2.5 tonnes per hectare (0.6-1.0 tonnes per acre) worth £25-£35 per tonne.

Seed: assumes 35% Home Saved Seed costing £323 per tonne including cleaning, dressing, sacks, and BSPB spring barley levy of £37.00 per tonne. Purchased seed (C2) with single-purpose dressing at £380 per tonne.

Fertiliser: if straw is removed, potash dressing should be increased by about 55kg per hectare (44 units per acre). Nitrogen applications need to be carefully judged to ensure grain nitrogen content is suitable for the target market.

Chemicals: covers herbicide, insecticide and fungicide.

Sundries: includes marketing costs, weighbridge charges, levies (HGCA cereal levy 40p per tonne estimated until June 2009) and in-store chemicals.

General: almost all spring barley plantings are to malting varieties. Of the total UK barley area (spring and winter) around 70-75% would be planted to malting varieties. However, not all harvested grain will actually meet malting standards and in an average year around 50% of the total barley crop will be suitable to malt.

SENSITIVITY

PRICE X YIELD

Assuming constant VARIABLE COSTS of £336 per hectare.

YIELD TONNES PER HECTARE

	3.7	4.1	4.5	4.9	5.3	5.7	6.1	6.5	6.9
	<i>Gross Margins £ Per Hectare</i>								
135	156	210	264	318	372	426	480	534	588
145	193	251	309	367	425	483	541	599	657
PRICE	155	229	291	353	415	477	539	601	663
£ PER	165	266	332	398	464	530	596	662	728
TONNE	175	302	372	442	512	582	652	722	792
	185	339	413	487	561	635	709	783	857
	195	375	453	531	609	687	765	843	921
	205	412	494	576	658	740	822	904	986
								986	1068

FIELD BEANS - WINTER

						£ per Ha	per Ac
Yield	4.00t (1.62t) @	£180/tonne	.....	.....		720	291
Area Payment	Protein Supplement for 2009 (England)		.....			35	14
OUTPUT						755	306
Seed	24/sq m, 180kg (73kg) @	£0.33/kg	.....			60	24
Fertiliser	0N:30P:35K kg (0:24:28 units)		.....			79	32
Chemicals	.....	.....	.....	.....	.....	83	34
Sundries	.....	.....	.....	.....	.....	12	5
VARIABLE COSTS						233	94
GROSS MARGIN						522	211

Yield: margin based on a sown crop. A large proportion of winter beans are ploughed-in. This will generally result in lower yields, although this is not always the case.

Price: estimated ex-farm price for beans from the 2009 harvest (November movement). Tannin-free varieties for the human consumption market should command a premium of £15-£25 per tonne, but this is somewhat offset by slightly lower yields (up to 5% reduction). Small tick beans for the pigeon trade also attract a premium over compounding livestock feed beans.

Subsidy: under the SPS there is a specific area payment for Proteins. Beans harvested dry are eligible for this supplement.

Seed: assumes 60% Home Saved Seed costing £287 per tonne including cleaning, dressing, sacks, and BSPB levy of £44.05 per tonne. Purchased seed at £400 per tonne. Sowing rate assumes seed being drilled on heavy land. On lighter soils seed rate could be reduced by up to 25%. If seed is being ploughed in, the rate should be increased by 5-10%.

Fertiliser: the crop does not respond to fertiliser nitrogen. Maintenance applications of P and K only - actual rates will depend on soil index. There is a risk to germination if more than 50kg potash per hectare (40 units per acre) is combine drilled.

Chemicals: covers herbicide, fungicide and insecticide.

Harvest: when moisture content is below 20% - this should occur 1-3 weeks earlier than spring beans. Desiccation may be necessary if there is a weed problem or if drying is uneven.

SENSITIVITY

PRICE X YIELD

Assuming constant VARIABLE COSTS of £233 per hectare and a Proteins Supplement of £35 per hectare.

	YIELD TONNES PER HECTARE									
	2.8	3.2	3.6	4.0	4.4	4.8	5.2	5.6	6.0	
	Gross Margins £ Per Hectare									
150	222	282	342	402	462	522	582	642	702	
160	250	314	378	442	506	570	634	698	762	
170	278	346	414	482	550	618	686	754	822	
PRICE	180	306	378	450	522	594	666	738	810	882
£ PER	190	334	410	486	562	638	714	790	866	942
TONNE	200	362	442	522	602	682	762	842	922	1002
	210	390	474	558	642	726	810	894	978	1062
	220	418	506	594	682	770	858	946	1034	1122

OTHER CROPS 1.3.

OILSEED RAPE - WINTER

		£ per Ha	per Ac
Yield	3.50t (1.42t) @ £300/tonne	1050	425
OUTPUT		1050	425
Seed	100/sq m, 5.5kg (2.23kg) @ £5.88/kg	32	13
Fertiliser	190N:40P:45K kg (152:32:36 units)	316	128
Chemicals	.....	125	51
Sundries	.....	11	4
VARIABLE COSTS		484	196
GROSS MARGIN		566	229

Price: estimated ex-farm selling price (November movement) for oilseed from the 2009 harvest. Based on prices for '00' varieties. Prices are for standard 40% oil content; there is usually a premium of 1.5% contract price for every 1% oil content above 40%.

Set-aside: see spring margin for details of non-food cropping.

Seed: assumes 50% Home Saved Seed costing £4.19 per kg including cleaning, dressing, sacks, and BSPB oilseed levy of £1,702.35 per tonne. Purchased seed at £7.50 per kg. Hybrid varieties would cost £50-£60 per Ha, but yields should be higher.

Chemicals: covers general herbicide and pesticide, and an allowance for insecticide (including slug pellets) and desiccant.

Sundries: includes marketing costs, weighbridge charges, levies, and in-store chemicals.

Planting: in August or early September. New 'auto-cast' establishment techniques can substantially reduce cultivation costs, but may require more chemicals and suffer a yield penalty.

Harvesting: in late July or early August. Figures above assume that the crop is harvested direct by combine. Alternatively, where ripening is uneven the crop may be desiccated, and then direct combined, or swathed prior to harvest. Swathing costs £35-£40 per hectare (£14-£18 per acre).

Prospects: good prices for oilseed rape, and rotational advantages have seen oilseed rape become the major break-crop in combinable crop rotations over the last few years. This looks set to continue, with demand buoyed by strong global oilseed demand.

SENSITIVITY

PRICE X YIELD

Assuming constant VARIABLE COSTS of £484 per hectare.

	YIELD TONNES PER HECTARE									
	2.3	2.7	3.1	3.5	3.9	4.3	4.7	5.1	5.5	
	<i>Gross Margins £ Per Hectare</i>									
	225	33	123	213	303	393	483	573	663	753
	250	91	191	291	391	491	591	691	791	891
PRICE	275	148	258	368	478	588	698	808	918	1028
£ PER	300	206	326	446	566	686	806	926	1046	1166
TONNE	325	263	393	523	653	783	913	1043	1173	1303
	350	321	461	601	741	881	1021	1161	1301	1441
	375	378	528	678	828	978	1128	1278	1428	1578
	400	436	596	756	916	1076	1236	1396	1556	1716

SUGAR BEET

		£ per Ha per Ac	
Yield	total of 70.1 adjusted tonnes (28.4t)		
'Quota' Beet	70.1t (28.4t) @ £29.60/tonne	.....	2075 840
'Other' Beet	0.0t (0.0t) @ £20.00/tonne	.....	0 0
OUTPUT		2075	840
Seed	11/sq m, 1.0 units (0.40) @ £145/unit	.....	145 59
Fertiliser	100N:40P:100K:160Na kg (80:32:80:128 units)		318 129
Chemicals	.....		145 59
Transport	@ £4.50 /tonne	.....	315 128
Sundries	.....		20 8
VARIABLE COSTS		943	382
GROSS MARGIN		1132	458

Yield: based on a physical yield of 66 tonnes of clean beet per hectare at a 17% sugar content adjusted to the standard 16% sugar content.

Price: the price shown is estimate for the total *2009 crop*. It is based on the estimated IPA price of £26.00 per tonne, which assumes present currency levels and cereals prices are maintained. It includes a £3.60 transport allowance for 'in-quota' beet (£3.80 per clean tonne). Due to the changing economics of the crop it is assumed that no beet will be grown outside of a grower's contract. Late delivery bonus paid after Boxing Day but no longer any early delivery bonus.

Seed: includes costs of seed treatment at £40 per hectare.

Fertiliser: assumes application of 320kg per hectare (162kg per acre) of salt to provide 160kg sodium per hectare. When tops are removed from the field, the potash application should be increased by about 150kg per hectare (120 units per acre).

Chemicals: the range in costs can be very wide. The figure above includes herbicides (around 80% of total), fungicides, insecticides, and trace elements.

Contract: contract harvesting (6-row harvester) will cost around £220 per hectare.

Transport: will vary widely, depending on distance to factory. Allowance is capped at 50 miles.

SENSITIVITY

PRICE X YIELD

Assuming constant VARIABLE COSTS of £628 per hectare other than TRANSPORT at £4.50 per tonne, which is related to yield.

		YIELD TONNES PER HECTARE								
		58	61	64	67	70	73	76	79	82
		<i>Gross Margins £ Per Hectare</i>								
	26.6	656	722	789	855	921	988	1054	1120	1186
	27.6	714	783	853	922	991	1061	1130	1199	1269
AVERAGE	28.6	772	845	917	989	1061	1134	1206	1278	1351
PRICE	29.6	830	906	981	1056	1132	1207	1282	1357	1433
£ PER	30.6	888	967	1045	1123	1202	1280	1358	1437	1515
TONNE	31.6	947	1028	1109	1190	1272	1353	1434	1516	1597
	32.6	1005	1089	1173	1258	1342	1426	1510	1595	1679
	33.6	1063	1150	1237	1325	1412	1499	1587	1674	1761

DAIRYING - GENERAL INFORMATION**ESTIMATED MILK PRICES**

The gross margin budgets for Friesian/Holstein dairy cows within this section are based on the following milk price weighted averages;

Autumn Calving Herds	...	...	26.3	pence per litre
Spring Calving Herds	...	...	24.4	pence per litre
All-year Calving Herds	...	...	26.0	pence per litre

These are derived from the estimates for average farmgate monthly milk prices shown below, with suitable adjustment for production profiles. They are for milk of standard composition, meeting all hygiene standards, and after transport deductions and MDC Levies. All seasonality, volume and bonus payments are included. Prices reflect current dairy contracts (see below), adjusted for an assessment of future market developments - all such estimates should be treated with caution.

Price -			Price -		
pence per litre			pence per litre		
April	...	25.00	October	...	27.10
May	...	24.40	November	...	27.20
June	...	24.50	December	...	26.90
July	...	25.50	January	...	26.50
August	...	26.00	February	...	26.00
September	...	26.80	March	...	25.50

COST ASSUMPTIONS

The following general assumptions have been made in the Friesian/Holstein margins that follow;

HERD DEPRECIATION

	£ per head
Average purchase or transfer value of heifers	1500
Average cull price assuming cow casualty/cull rate of 4%	470
Herd life (years)	3.5
Average herd depreciation (all service via AI - no bull charges)	294

CALF VALUE

Average annual value of calves - assumes 40:60 purebred/beef cross split. Adjusted for 7% mortality and calving interval of 380 days	94
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UNIT COSTS OF PRODUCTION

It is common in the dairy industry to focus on the cost of production per litre of milk. This brings in the 'fixed costs' associated with the dairying enterprise to show the total cost. Unit costs of production can then be easily compared against price to gauge profitability, and also other farms for the purposes of comparative analysis.

The figures below are based on the average output and variable cost information for all-year round calving herds. The fixed (overhead) costs data is from the whole farm figures in Section 3 relating to Dairy Farms (medium farm size). However, all such figures can only be very general guides and actual results are likely to vary greatly between farms. Individual businesses should use historical data to compile unit cost figures. More fixed cost data can be found in Section 3 of this supplement.

	Pence per Litre
Milk Price	26.00
<i>less</i> Net Replacement Costs	2.88
OUTPUT	23.12
Concentrates plus bulk feed	5.56
Forage	3.89
Sundry Variables	2.17
VARIABLE COSTS	11.62
MARGIN AFTER VARIABLE COSTS	11.50
Labour	4.65
Power and Machinery	2.66
General Overheads	1.88
OVERHEAD COSTS	9.19
PROFIT BEFORE RENT AND FINANCE	2.31
Rent and Finance Charges	1.70
NET PROFIT (excluding quota charges)	0.62

Labour: includes an imputed charge for farmer's and farmer's family manual labour, this makes up around 3.4ppl of the total labour charge.

Power and Machinery: includes depreciation and repairs on milking plant and equipment (but not buildings), plus electricity, fuel and contracting.

General Overheads: land and building repairs, plus water, office costs etc...

Rent and Finance: likely to be vary variable between businesses depending on the mix of tenanted / owned land and the level of bank borrowings.

Net Profit: does not include any charge for the leasing of quota. Is the return to farmer's invested capital and management time.

DAIRY COWS 2.1.

DAIRY COWS - FRIESIAN/HOLSTEIN (ALL-YEAR CALVING)

		£ per Cow
Milk	6,950 litres @ 26.0p/litre	1807
Calf value	allowing for losses	94
less Depreciation	.....	294
OUTPUT		1607
Concentrates	0.250kg/litre, 1.74t total @ an average cost of £205/tonne	356
Bulk feed	purchased	30
Vet. & Medicine	.....	50
A.I.	.....	30
Bedding	0.5-0.7t straw (cubicles)	21
Variable sundries	.....	50
VARIABLE COSTS (before forage)		537
MARGIN OVER CONCENTRATES (milk value less concentrates)		1451
GROSS MARGIN (before forage)		1070
Forage costs	0.50ha (1.24ac) @ £539/ha (£218/ac)	270
		Per Ha Per Ac
GROSS MARGIN (after forage)		1560 800 631
		1.95 cows/ha (0.79/ac)

General: all-year round calving sees calvings spaced evenly, or fairly evenly, throughout the year. Many milk purchasers are trying to encourage this system as it results in a more even supply of milk during the year. Costs can be relatively high as there are fewer savings from 'block calvings' or being able to cease milking for a part of the year.

Milk Price: see page 10 for details. Each 1 pence per litre change in the milk price generates a + or - £69.50 change in gross margin per head at the standard yield level.

Support: the Single Payment is not included in the margin.

Herd Depreciation and Calf Price: see page 10 for details

Yield: the figure shown is an estimate of the likely national average for autumn calving herds. Higher yields are achievable, and the average for costed/recorded herds will tend to be greater than that shown.

SENSITIVITY - YIELD LEVELS

Higher yields are predominantly achieved through higher concentrate usage. The table below shows CONCENTRATE USE PER LITRE at different yield levels. This gives a TOTAL CONCENTRATE usage figure and the relevant GROSS MARGIN at the average milk price of 26.0 pence per litre. Note that all other variable costs are assumed to remain constant as yields rise. In practice the quantity of forage used is likely to reduce slightly as a proportion of bulk feed is replaced by concentrates.

	5950	6450	6950	7450	7950	8450	8950	9450	
MILK YIELD	5950	6450	6950	7450	7950	8450	8950	9450	litres per cow
CONCENTRATES	0.220	0.235	0.250	0.265	0.280	0.295	0.310	0.325	kg per litre
gives TOTAL CONC.	1.31	1.52	1.74	1.97	2.23	2.49	2.77	3.07	tonnes per cow
GROSS MARGIN	628	715	800	881	960	1035	1107	1177	£ per cow

Concentrate Cost: for simplicity price is based on 19% protein dairy cake. In common with autumn calving herds, all-year calvers are increasingly moving to using 'complete diet' systems for winter feeding. Savings of £15-£20 per tonne may be possible over compound feeds through using straights. Each £5 change in concentrate cost has a + or - £8.69 change in gross margin at the standard yield level.

Concentrate Use: the table on the previous page showed how concentrate use tends to rise with yield level. These are only typical figures however, and many herds will have different combinations

SENSITIVITY - CONCENTRATES FED X YIELD

Assuming all other prices and costs as above.

		YIELD LITRES PER COW							
		5750	6350	6950	7550	8150	8750	9350	9950
		<i>Gross Margins £ Per Cow (after forage)</i>							
	1.31	576	732	888	1044	1200	1356	1512	1668
	1.52	533	689	845	1001	1157	1313	1469	1625
CONCENTRATES	1.74	488	644	800	956	1112	1268	1424	1580
TONNES	1.97	439	595	751	907	1063	1219	1375	1531
PER COW	2.23	388	544	700	856	1012	1168	1324	1480
	2.49	333	489	645	801	957	1113	1269	1425
	2.77	275	431	587	743	899	1055	1211	1367
	3.07	215	371	527	683	839	995	1151	1307

Bedding: allow up to 2 tonnes per head if cow is loose housed

Sundries: includes milk recording/costings, dairy chemicals, eartags, freeze branding etc.

Forage Costs: forage variable costs are shown - i.e. inputs such as fertiliser and reseeded are included, but not the rental value, machinery or labour used applying the inputs or harvesting the crop. The overall forage cost shown in the margin is calculated from the following assumptions;

Grass Silage	5.85 tonnes from 0.16ha (0.41 ac) @ £717/ha (£290/ac)
Maize Silage	1.95 tonnes from 0.05ha (0.11 ac) @ £674/ha (£273/ac)
Grazed Grass	0.29ha (0.72 ac) @ £416/ha (£169/ac)

SENSITIVITY - STOCKING RATE X MILK PRICE

The table below assumes a 6,950 litres milk yield, with all other costs apart from FORAGE COSTS remaining constant.

FORAGE VARIABLE COSTS are increased in equal £24 steps from £491 per hectare (£199 per acre) a stocking rate of 1.6 cows per hectare (0.6 cows per acre), to £635 per hectare (£257 per acre) at 2.8 cows per hectare (1.11 cows per acre).

		MILK PRICE PENCE PER LITRE							
		24.8	25.2	25.6	26.0	26.4	26.8	27.2	27.6
		<i>Gross Margins £ Per Hectare (after forage)</i>							
	1.6	1038	1081	1124	1167	1210	1253	1296	1339
STOCKING	1.8	1211	1260	1308	1357	1406	1454	1503	1552
RATE	2.0	1384	1438	1493	1547	1601	1655	1710	1764
COWS	2.2	1558	1617	1677	1737	1797	1856	1916	1976
PER	2.4	1731	1796	1861	1927	1992	2057	2123	2188
HECTARE	2.6	1904	1975	2046	2117	2188	2258	2329	2400
	2.8	2077	2154	2230	2307	2383	2459	2536	2612

SUCKLER COWS 2.2.

LOWLAND SUCKLERS - AUTUMN CALVING

						£ Per Cow			
Sale	at 10-11 mths old (steers - 375kg, heifers - 340kg)								
	ave. price 141p/kg liveweight, 94% reared	.....	.....	.....	.....	.....	475
less depreciation	cow over a 7.5 year herd life, plus bull, and calf replacement	.....	.....	.....	.....	.....	48
OUTPUT							427		
Concentrates:-	cow, 190kg @ 19p/kg	.....	.....	.....	.....	.....	36
	calf, 130kg @ 21p/kg	.....	.....	.....	.....	.....	27
Bulk feed	purchased	.....	.....	.....	.....	.....	20
Vet. & Medicine	.....	.....	.....	.....	.....	.....	20
Bedding	0.7-0.8t straw	.....	.....	.....	.....	.....	26
Variable sundries	.....	.....	.....	.....	.....	.....	15
VARIABLE COSTS (before forage)							144		
GROSS MARGIN (before forage)							282		
Forage costs	0.71ha (1.77ac) @ £370/ha (£150/ac)	.....	.....	.....	.....	.....	264
						Per Ha	Per Ac		
GROSS MARGIN (after forage)							25	18	10

General: autumn born (Aug-Oct) beef-bred calves. Sold the following autumn (Sept-Oct) after weaning in early summer. Cows and new-born calves overwintered in straw yards on silage.

Sales: price of steer calves equates to £540 per head, heifers £470 per head.

Depreciation: based on a heifer cost of £800. Cull value of £555 derived from a 640kg animal at 100ppkg - less 10% casualties, and a £20 deduction for transport and fees. An average herd life of 7.5 years, £9 share of bull depreciation, and 4% calves purchased at £160. Assumes culls were born after August 1996 and can enter the food chain.

Forage: stocking rates can be much higher (up to 2 cows per Ha) but extensive pasture grazing assumed.

Daily Liveweight Gain: from 6 months to sale; male 1-1.1kg, female 0.9-1kg

SENSITIVITY

STOCKING RATE X CALF PRICE

Assuming constant VARIABLE COSTS other than forage of £144 per cow. FORAGE COSTS are increased in equal £35 steps from £265 per hectare (£107 per acre) at a stocking rate of 1.1 cows per hectare (2.25 acres per cow), to £440 per hectare (£178 per acre) at 1.6 cows per hectare (1.54 acres per cow).

CALF PRICE PENCE PER LIVE KG

	125	129	133	137	141	145	149	153	157	
	Gross Margins £ Per Hectare (after forage)									
STOCKING RATE	1.1	-14	1	16	31	45	60	75	90	105
	1.2	-26	-10	6	23	39	55	71	87	103
	1.3	-38	-21	-3	14	32	49	67	84	102
	1.4	-50	-31	-13	6	25	44	63	82	100
	1.5	-62	-42	-22	-2	18	38	59	79	99
	1.6	-75	-53	-31	-10	12	33	55	76	98
	1.7	-87	-64	-41	-18	5	28	50	73	96

LOWLAND SUCKLERS - SPRING CALVING

		£ Per Cow		
Sale	at 7-8 mths old (steers - 285kg, heifers - 265kg)			
	ave. price 151p/kg liveweight, 94% reared	.....		390
less depreciation	cow over a 8 year herd life, plus bull, and calf replacement	.....	.....	46
OUTPUT				345
Concentrates:-	cow, 125kg @ 19p/kg	.....	.....	24
	calf, 80kg @ 21p/kg	.....	.....	17
Bulk feed	purchased	.....	.....	18
Vet. & Medicine		.....	.....	19
Bedding	0.5-0.6t straw	.....	.....	19
Variable sundries		.....	.....	16
VARIABLE COSTS (before forage)				113
GROSS MARGIN (before forage)				232
Forage costs	0.65ha (1.59ac) @ £330/ha (£134/ac)	.....	.....	213
				Per Ha Per Acre
GROSS MARGIN (after forage)				30 19 12

General: spring born (Feb-May) beef-bred calves. Sold or transferred off grass in the autumn. Cows overwintered in straw yards with mainly silage diets.

Prices: store prices have risen strongly over the past few months - in line with increased finished beef values.

Sales: price of steer calves equates to £445 per head, heifers £390 per head. Values can vary widely depending on breed and quality.

Depreciation: based on a heifer cost of £800, a cull value of £555 an average herd life of 8 years, £9 share of bull depreciation, and 4% calves purchased at £160. Assumes culls were born after August 1996 and can enter the food chain.

Forage: stocking rates can be much higher (2 cows per Ha) but extensive pasture grazing assumed.

SENSITIVITY

STOCKING RATE X CALF PRICE

Assuming constant VARIABLE COSTS other than forage of £113 per cow. FORAGE COSTS are increased in equal £30 steps from £270 per hectare (£109 per acre) at a stocking rate of 1.4 cows per hectare (1.83 acres per cow), to £420 per hectare (£170 per acre) at 1.85 cows per hectare (1.34 acres per cow).

		CALF PRICE PENCE PER LIVE KG								
		135	139	143	147	151	155	159	163	167
		Gross Margins £ Per Hectare (after forage)								
	1.25	-2	11	24	37	50	63	76	89	102
STOCKING	1.35	-12	2	15	29	43	57	71	85	99
RATE	1.45	-23	-8	7	22	37	52	67	82	97
COWS	1.55	-34	-18	-2	14	30	46	62	78	94
PER	1.65	-45	-28	-11	6	23	40	57	74	91
HECTARE	1.75	-56	-38	-20	-2	16	34	52	71	89
	1.85	-67	-48	-29	-10	9	29	48	67	86

INTENSIVE BEEF FINISHING - SILAGE

		£ Per Head	
		Frisian X Cont.	Suckled Beef
		Bulls/Steers	Bulls/Steers
Sale	560kg @ 148p/kg (15-17 months old)	.....	829
<i>or</i>	550kg @ 154p/kg (14-16 months old)	.....	- 847
<i>less</i> purchases	45kg (1-2 weeks), incl. 3% mortality	.....	165
	285kg (6 months), incl. 1.5% mortality	.....	- 451
OUTPUT		664	396
Bucket Rearing	Calf Rearing to 3 Months'		
	- variable costs	.....	92
Concentrates	barley ration 1,100kg @ 16p/kg	.....	176
	barley ration 850kg @ 16p/kg	.....	- 136
Other feed		.....	7
Vet. & Med.		.....	10
Straw	0.7-0.9t straw	.....	32
Sundries		.....	25
VARIABLE COSTS (before forage)		342	203
GROSS MARGIN (before forage)		322	193
Forage costs	6.5t and 4.3t silage @ £15.00/t variable costs	98	65
GROSS MARGIN (after forage)		225	128

General: progeny of Friesian dairy cows and beef bulls (see page 12); and spring born, autumn weaned stores from suckler herds (see page 15).

Deadweight: Friesian crosses; at a killing out of 55% equates to a deadweight of 286kg at 269p per kg. For Suckled beef; a killing out of 56% gives a deadweight of 291kg at 275p per kg.

Forage: silage costs based on forage *variable* costs only (seeds, ferts, sprays), and excludes any harvesting or storage costs.

SENSITIVITY - FRIESIAN X CONTINENTAL BULLS/STEERS**CALF COST x SALE VALUE**

Assuming constant VARIABLE COSTS of £342 per head, and mortality at 3% of calf purchase price.

		SALE VALUE PENCE PER LIVE KG								
		136	139	142	145	148	151	154	157	160
		<i>Gross Margins £ Per Head</i>								
	130	188	205	222	239	256	272	289	306	323
CALF	140	178	195	212	228	245	262	279	296	312
COST	150	168	185	201	218	235	252	269	285	302
£ PER	160	157	174	191	208	225	241	258	275	292
HEAD	170	147	164	181	198	214	231	248	265	282
	180	137	154	170	187	204	221	238	254	271
	190	127	143	160	177	194	211	227	244	261

LOWLAND SPRING LAMB PRODUCTION

		£ Per Ewe		
Lambs:-	1.1 finished weighing 40kg live wt. @ £1.20/kg (£48.00/lamb) .....	.....	.....	52.80
	0.45 stores @ £38.00/lamb .....	.....	.....	17.10
Wool	..... .....	.....	.....	1.30
<i>less</i> Depreciation	ewe and ram charge .....	.....	.....	13.17
OUTPUT				58.03
Concentrates:-	ewe, 55kg @ 18.5p/kg .....	.....	.....	10.18
	lambs, 8kg @ 21p/kg .....	.....	.....	1.68
Vet. & Medicine	..... .....	.....	.....	5.00
Variable sundries	..... .....	.....	.....	5.50
VARIABLE COSTS (before forage)				22.36
GROSS MARGIN (before forage)				35.68
Forage costs	0.083ha (0.21ac) @ £300/ha (£121/ac)			25.00
				Per Ha Per Ac
GROSS MARGIN (after forage)				128 10.68 52

General: halfbred breeds such as Mules / Scotch Halfbreds crossed with terminal sire (Suffolk, Texel etc...). The variety of breeds and crosses used under this system is vast, and this will have an effect on lambing %, sale weight etc... There is usually some trade off between ewe prolificacy and lamb value.

Lambing %: based on 95% of ewes tupped lambing at 1.77 lambs per ewe. Which equates to 168 lambs born per 100 ewes. With 8% born dead or dying before sale, this gives 155 lambs per 100 ewes put to ram.

Prices: estimated average finished lamb price for the summer / autumn selling period for 2009 net of levies and other deductions. At an average killing out of 46% 40kg liveweight at 120p per kg equates to 18.4kg deadweight at 260p per kg. (Actual KO% will vary with breed/age of lamb). Prices for finished lambs have been lacklustre for the last couple of seasons. The recent shift in the exchange rate has made imports less competitive, and supermarkets appear to be supporting the domestic product. Therefore the market has recovered from its lows of previous years. There is some optimism that prices may be maintained at current levels, despite long-term consumer trends away from lamb. Declining flocks both domestically and in Oceania helps the supply/demand balance. **However**, this is dependant on Bluetongue disease being controlled during the coming seasons. Use sensitivity tables to adjust for specific circumstances.

Depreciation: replacement shearing/gimmer valued at £75; an average cull/casualty ewe price of £27; and an average 4.5 year flock life gives depreciation per ewe per year = £10.67; plus £2.50 per ewe as share of ram depreciation (£100 per ram per year over 3 years, 40 ewes per ram).

Variable Sundries: includes market expenses, transport, shearing, scanning, recording, straw, and consumable stores (tags, markers etc..).

Forage Costs: the rates shown above are average figures if only grazed sheep are present. Higher rates are possible with higher levels of management - use sensitivity tables opposite.

SENSITIVITY

1. LAMB NUMBERS X LAMB PRICE

Assuming an overall STOCKING RATE of 12 ewes per hectare (4.86 ewes per acre), constant VARIABLE COSTS of £47.36 per ewe, and 0.45 store lambs sold at £38 per head.

FINISHED LAMB PRICE £ PER KG LIVE WT.

		1.08	1.11	1.14	1.17	1.20	1.23	1.26	1.29	1.32
		<i>Gross Margins £ Per Hectare (after forage)</i>								
	0.8	-91	-79	-68	-56	-45	-33	-22	-10	1
FINISHED	0.9	-39	-26	-13	0	13	26	39	52	65
LAMBS	1.0	13	27	42	56	71	85	99	114	128
PER EWES	1.1	65	81	96	112	128	144	160	176	192
PER YEAR	1.2	117	134	151	168	186	203	220	238	255
	1.3	168	187	206	225	243	262	281	300	318
	1.4	220	240	261	281	301	321	341	361	382

2. STOCKING RATE X LAMB PRICE

Assuming 1.55 total lambs per ewe per year, VARIABLE COSTS other than forage of £22.36 per ewe and 0.45 store lambs per ewe at £38.00 per lamb.

FORAGE VARIABLE COSTS are increased in equal £20 steps from £260 per hectare (£105 per acre) at an overall stocking rate of 10 ewes per hectare (4.05 ewes per acre), to £360 per hectare (£146 per acre) at 15 ewes per hectare (6.07 ewes per acre).

FINISHED LAMB PRICE £ PER KG LIVE WT.

		1.08	1.11	1.14	1.17	1.20	1.23	1.26	1.29	1.32
		<i>Gross Margins £ Per Hectare (after forage)</i>								
	10.0	44	57	70	84	97	110	123	136	150
STOCKING	11.0	54	69	83	98	112	127	142	156	171
RATE	12.0	65	81	96	112	128	144	160	176	192
EWES PER	13.0	75	92	109	127	144	161	178	195	212
HECTARE	14.0	86	104	123	141	159	178	196	215	233
	15.0	96	116	136	155	175	195	215	235	254

3. STOCKING RATE X LAMB NUMBERS

Assuming an average lamb price of £45.10, and VARIABLE COSTS other than forage of £22.36 per ewe. FORAGE VARIABLE COSTS are increased in equal £20 steps from £260 per hectare (£105 per acre) at an overall stocking rate of 10 ewes per hectare (4.05 ewes per acre), to £360 per hectare (£146 per acre) at 15 ewes per hectare (6.07 ewes per acre).

TOTAL LAMBS PER EWES PER YEAR

		1.3	1.4	1.5	1.6	1.7	1.8	1.8	1.9	2.0
		<i>Gross Margins £ Per Hectare (after forage)</i>								
	10.0	-39	7	52	97	142	187	187	232	277
STOCKING	11.0	-36	13	63	112	162	212	212	261	311
RATE	12.0	-34	20	74	128	182	236	236	290	345
EWES PER	13.0	-32	27	85	144	202	261	261	320	378
HECTARE	14.0	-30	33	96	159	223	286	286	349	412
	15.0	-28	40	108	175	243	310	310	378	446

3.1. WHOLE FARM COSTS

CEREALS FARMS

	SMALL		MEDIUM	
	Up to 180 Ha	450 Ac	180-320 Ha	450-800
	£ per Ha	per Ac	£ per Ha	per Ac
Unpaid (Family) Labour	210	85	125	51
Paid Labour (inc. Casual)	60	24	90	36
Total Labour	270	109	215	87
Machinery Depreciation	80	32	80	32
Machinery Running Costs	110	45	110	45
General Contract Costs	70	28	65	26
Total Machinery & Power	260	105	255	103
Rent	60	24	75	30
Interest	20	8	25	10
Total Rent & Interest	80	32	100	40
Property & Building Repairs	5	2	5	2
Building Depreciation	25	10	30	12
Total Property Costs	30	12	35	14
Professional Fees and Subs.	20	8	20	8
Water, Electricity, etc.	60	24	55	22
Misc. Fixed Costs	30	12	30	12
Fixed Cost Sundries	110	45	105	42
TOTAL FIXED COSTS	750	304	710	287

	LARGE		VERY LARGE	
	320-480 Ha	800-1,200	Over 480 Ha	1,200 Ac
	£ per Ha	per Ac	£ per Ha	per Ac
Unpaid (Family) Labour	40	16	25	10
Paid Labour (inc. Casual)	150	61	120	49
Total Labour	190	77	145	59
Machinery Depreciation	95	38	85	34
Machinery Running Costs	115	47	110	45
General Contract Costs	35	14	30	12
Total Machinery & Power	245	99	225	91
Rent	70	28	75	30
Interest	30	12	30	12
Total Rent & Interest	100	40	105	42
Property & Building Repairs	3	1	2	1
Building Depreciation	22	9	18	7
Total Property Costs	25	10	20	8
Professional Fees and Subs.	15	6	12	5
Water, Electricity, etc.	50	20	43	17
Misc. Fixed Costs	25	10	25	10
Fixed Cost Sundries	90	36	80	32
TOTAL FIXED COSTS	650	263	575	233

WHOLE FARM COSTS 3.1.

GENERAL CROPPING FARMS

		SMALL		MEDIUM	
		Up to 140 Ha £ per Ha	350 Ac per Ac	140-200 Ha £ per Ha	350-500 per Ac
Unpaid (Family) Labour	....	225	91	155	63
Paid Labour (inc. Casual)	....	110	45	175	71
Total Labour		335	136	330	134
Machinery Depreciation	....	100	40	125	51
Machinery Running Costs	....	130	53	140	57
General Contract Costs	....	75	30	70	28
Total Machinery & Power		305	123	335	136
Rent	....	90	36	100	40
Interest	....	35	14	40	16
Total Rent & Interest		125	51	140	57
Property & Building Repairs	....	5	2	5	2
Building Depreciation	....	15	6	25	10
Total Property Costs		20	8	30	12
Professional Fees and Subs.	....	25	10	20	8
Water, Electricity, etc.	....	80	32	80	32
Misc. Fixed Costs	....	35	14	45	18
Fixed Cost Sundries		140	57	145	59
TOTAL FIXED COSTS		925	374	980	397

		LARGE		VERY LARGE	
		200-300 Ha £ per Ha	500-750 per Ac	Over 300 Ha £ per Ha	750 Ac per Ac
Unpaid (Family) Labour	....	95	38	40	16
Paid Labour (inc. Casual)	....	185	75	225	91
Total Labour		280	113	265	107
Machinery Depreciation	....	110	45	110	45
Machinery Running Costs	....	145	59	170	69
General Contract Costs	....	85	34	75	30
Total Machinery & Power		340	138	355	144
Rent	....	120	49	140	57
Interest	....	35	14	35	14
Total Rent & Interest		155	63	175	71
Property & Building Repairs	....	3	1	3	1
Building Depreciation	....	22	9	42	17
Total Property Costs		25	10	45	18
Professional Fees and Subs.	....	20	8	25	10
Water, Electricity, etc.	....	75	30	90	36
Misc. Fixed Costs	....	30	12	70	28
Fixed Cost Sundries		125	51	185	75
TOTAL FIXED COSTS		925	374	1025	415

DAIRY FARMS

	SMALL		MEDIUM	
	Up to 75 Ha £ per Ha	185 Ac per Ac	75-125 Ha £ per Ha	185-310 per Ac
Unpaid (Family) Labour	610	247	460	186
Paid Labour (inc. Casual)	130	53	170	69
Total Labour	740	299	630	255
Machinery Depreciation	90	36	100	40
Machinery Running Costs	120	49	150	61
General Contract Costs	95	38	110	45
Total Machinery & Power	305	123	360	146
Rent	80	32	90	36
Interest	50	20	50	20
Total Rent & Interest	130	53	140	57
Property & Building Repairs	8	3	5	2
Building Depreciation	22	9	35	14
Total Property Costs	30	12	40	16
Professional Fees and Subs.	40	16	35	14
Water, Electricity, etc.	140	57	135	55
Misc. Fixed Costs	50	20	45	18
Fixed Cost Sundries	230	93	215	87
TOTAL FIXED COSTS	1435	581	1385	561

	LARGE		VERY LARGE	
	125-175 Ha £ per Ha	310-430 per Ac	Over 175 Ha £ per Ha	430 Ac per Ac
Unpaid (Family) Labour	225	91	110	45
Paid Labour (inc. Casual)	215	87	290	117
Total Labour	440	178	400	162
Machinery Depreciation	110	45	110	45
Machinery Running Costs	145	59	150	61
General Contract Costs	90	36	110	45
Total Machinery & Power	345	140	370	150
Rent	90	36	100	40
Interest	55	22	65	26
Total Rent & Interest	145	59	165	67
Property & Building Repairs	5	2	5	2
Building Depreciation	45	18	65	26
Total Property Costs	50	20	70	28
Professional Fees and Subs.	30	12	30	12
Water, Electricity, etc.	125	51	120	49
Misc. Fixed Costs	25	10	25	10
Fixed Cost Sundries	180	73	175	71
TOTAL FIXED COSTS	1160	469	1180	478

WHOLE FARM COSTS 3.1.

LOWLAND GRAZING LIVESTOCK

	SMALL		MEDIUM	
	Up to 90 Ha	220 Ac	90-140 Ha	220-350
	£ per Ha	per Ac	£ per Ha	per Ac
Unpaid (Family) Labour	315	127	270	109
Paid Labour (inc. Casual)	45	18	50	20
Total Labour	360	146	320	130
Machinery Depreciation	75	30	70	28
Machinery Running Costs	100	40	90	36
General Contract Costs	60	24	50	20
Total Machinery & Power	235	95	210	85
Rent	70	28	65	26
Interest	30	12	25	10
Total Rent & Interest	100	40	90	36
Property & Building Repairs	5	2	5	2
Building Depreciation	25	10	20	8
Total Property Costs	30	12	25	10
Professional Fees and Subs.	25	10	20	8
Water, Electricity, etc.	85	34	75	30
Misc. Fixed Costs	20	8	15	6
Fixed Cost Sundries	130	53	110	45
TOTAL FIXED COSTS	855	346	755	306

	LARGE		VERY LARGE	
	140-200 Ha	350-500	Over 200 Ha	500 Ac
	£ per Ha	per Ac	£ per Ha	per Ac
Unpaid (Family) Labour	180	73	120	49
Paid Labour (inc. Casual)	65	26	85	34
Total Labour	245	99	205	83
Machinery Depreciation	60	24	50	20
Machinery Running Costs	85	34	75	30
General Contract Costs	45	18	35	14
Total Machinery & Power	190	77	160	65
Rent	65	26	65	26
Interest	25	10	15	6
Total Rent & Interest	90	36	80	32
Property & Building Repairs	3	1	3	1
Building Depreciation	22	9	22	9
Total Property Costs	25	10	25	10
Professional Fees and Subs.	15	6	10	4
Water, Electricity, etc.	60	24	45	18
Misc. Fixed Costs	20	8	15	6
Fixed Cost Sundries	95	38	70	28
TOTAL FIXED COSTS	645	261	540	219

LFA GRAZING LIVESTOCK

	SMALL		MEDIUM	
	Up to 75 Ha £ per Ha	185 Ac per Ac	75-125 Ha £ per Ha	185-310 per Ac
Unpaid (Family) Labour	300	121	250	101
Paid Labour (inc. Casual)	25	10	25	10
Total Labour	325	132	275	111
Machinery Depreciation	50	20	45	18
Machinery Running Costs	65	26	55	22
General Contract Costs	25	10	20	8
Total Machinery & Power	140	57	120	49
Rent	40	16	45	18
Interest	15	6	10	4
Total Rent & Interest	55	22	55	22
Property & Building Repairs	3	1	3	1
Building Depreciation	17	7	17	7
Total Property Costs	20	8	20	8
Professional Fees and Subs.	15	6	10	4
Water, Electricity, etc.	45	18	35	14
Misc. Fixed Costs	15	6	10	4
Fixed Cost Sundries	75	30	55	22
TOTAL FIXED COSTS	615	249	525	212

	LARGE		VERY LARGE	
	125-175 Ha £ per Ha	310-430 per Ac	Over 175 Ha £ per Ha	430 Ac per Ac
Unpaid (Family) Labour	195	79	110	45
Paid Labour (inc. Casual)	35	14	60	24
Total Labour	230	93	170	69
Machinery Depreciation	45	18	35	14
Machinery Running Costs	55	22	50	20
General Contract Costs	20	8	20	8
Total Machinery & Power	120	49	105	42
Rent	85	34	100	40
Interest	55	22	65	26
Total Rent & Interest	140	57	165	67
Property & Building Repairs	3	1	3	1
Building Depreciation	12	5	12	5
Total Property Costs	15	6	15	6
Professional Fees and Subs.	10	4	10	4
Water, Electricity, etc.	35	14	30	12
Misc. Fixed Costs	10	4	15	6
Fixed Cost Sundries	55	22	55	22
TOTAL FIXED COSTS	560	227	510	206

AVERAGE INPUT PRICE INDICES

The inflation indices outlined below are from DEFRA Statistics. More information is available at <https://statistics.defra.gov.uk/esg/statnot/apinotice.pdf>. Actual figures are shown up to May 2008 (latest available). The Index of 100 is based on average prices during the 2000 calendar year.

INPUTS	2003	2004	2005	2006	2007	2007		2008
	Ave.	Ave.	Ave.	Ave.	Ave.	May	Nov	May
Straight Feeds ...	108.2	114.9	102.9	110.5	146.3	128.7	174.4	196.5
Compound Feeds ...	102.7	109.4	103.1	106.5	123.6	118.0	139.2	148.7
All Feedstuffs ...	104.9	111.6	103.0	108.1	132.7	122.3	153.4	168.0
Seeds ...	116.0	110.3	108.2	104.0	153.6	136.5	140.4	169.6
Straight Nitrogen ...	133.1	148.5	168.7	181.8	188.9	180.5	205.7	329.0
Compound Fertilisers	109.1	118.4	126.0	130.4	160.0	148.9	182.6	422.5
All Fertilisers ...	119.0	130.5	143.3	151.4	170.6	161.0	190.0	370.0
Pesticides ...	95.7	100.6	102.9	103.4	104.9	104.7	105.9	105.7
Fuels ...	100.7	110.3	143.4	157.6	159.7	134.4	149.0	190.2
Electricity ...	96.5	98.9	110.7	132.0	150.1	150.1	150.1	150.1
All Energy & Lubricants	100.5	108.8	137.4	154.4	162.0	157.1	180.1	222.8
Maintenance & repair of plant & machinery ...	116.0	122.5	130.3	137.8	143.4	142.3	145.0	150.2
Maintenance & repair of buildings ...	108.3	113.4	118.1	125.1	134.3	133.6	136.9	139.8
Veterinary services ...	101.6	104.6	103.9	111.1	112.5	112.6	109.6	107.3
General expenses ...	105.2	114.0	114.5	115.5	119.7	119.5	120.0	121.8
CURRENT INPUTS	106.5	113.7	116.0	120.7	132.5	128.6	140.0	169.1
Tractors ...	101.4	106.1	110.5	111.8	111.8	111.8	111.8	113.0
All Machinery & Equipment	95.1	96.1	103.8	108.2	114.0	113.2	117.5	119.9
Buildings ...	112.1	118.1	123.7	130.9	140.0	139.3	142.6	145.8
CAPITAL INPUTS	101.5	104.4	108.7	111.7	115.4	115.8	117.7	119.4

GENERAL INFLATION FACTORS

The figures below show the level of general inflation within the UK economy. More information is available from the National Statistics website at <http://www.statistics.gov.uk/CCI/nscl.asp?ID=5999>. The percentage figures are all based on the change in prices over the preceding 12 months.

RPI (Retail Price Index) is the traditional measure of inflation. RPIX is the same measure but excludes mortgage interest payments. The Government's preferred measure of inflation (and the one used for the 2% inflation target) is CPI (Consumer Price Index).

	2002	2003	2004	2005	2006	2007	2008
	Ave.	Ave.	Ave.	Ave.	Ave.	Ave.	Jun
RPI Index (1987 = 100) ...	176.2	181.3	186.7	192.0	198.1	206.6	216.8
RPI % Change ...	1.7	2.9	3.0	2.8	3.2	4.3	4.6
RPIX % Change ...	2.2	2.8	2.2	2.3	2.9	3.2	4.8
CPI Index (2005 = 100) ...	95.4	96.7	98.0	100.0	102.3	104.7	109.0
CPI % Change ...	1.3	1.4	1.3	2.1	2.3	2.3	3.8
Food % Change (RPI data) ...	0.7	1.3	0.6	1.2	2.1	4.6	9.7

SPECIFIC COST INFORMATION

This section looks in more detail at the price movements of some of the main cost elements faced by farming businesses. The usual approach is to show market prices at 6-monthly intervals (coinciding with the publication of each edition of the ABC Book). Estimates of likely price levels in November 2008 and May 2009 have then been provided. These price levels have been incorporated in the preceding gross margins where applicable.

The usual caveats on predicting future prices apply - even more so in these volatile times. The figures are published for guidance only and readers use them at their own discretion. Note that the figures quoted are actuals for the month in question (i.e. from Key Farm Facts). They may not correspond exactly with the figure quoted in that month's edition of the ABC Book which is designed to look forward. Note also that these actual costs may not correspond to the indices shown on the previous page.

FERTILISER (£/t - blended UK in 500kg bags)	2005		2006		2007		2008		2009
	Nov	May	Nov	May	Nov	May	Nov	May	May
Ammonium Nitrate (34.5%)	152	168	156	160	201	330	375	395	
Triple Super Phosphate (46%)	-	148	148	190	272	640	675	675	
Muriate of Potash (60%)	-	144	145	152	269	470	600	600	

There seems to have been a fundamental shift in the fertiliser market over the past year or two as long-term oversupply for all fertiliser products has ended. This has been caused by increasing global demand for product, coupled with slow output increases (or even contraction). The price of Nitrogen is closely linked to that of natural gas (its main feedstock). This, in turn, is linked to the oil price. Although there may be a small weakening from recent highs, there will be no return to the levels seen in the previous decade. Increasing the supply of phosphate and potash will require significant long-term investment, so prices are also likely to stay high as long as demand remains firm.

FUEL (pence per litre - delivered in bulk (Midlands) over 2,300 litres)

Gas Oil (tractor diesel)	33.1	37.8	32.8	35.5	47.9	66.1	65.0	60.0
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Obviously the price of this input is linked directly to the global oil price (although the taxation regime has an effect). It is thought that there may be a very slight weakening of price over the next 12 months, but fundamentally, the price will stay very high in historic terms.

ANIMAL FEED (£/tonne - delivered)

Feed Wheat (ex-farm)	64	75	90	95	139	145	135	140
Hipro Soya	153	134	142	154	230	298	320	290
Dairy Cow Cake (18%)	125	125	130	145	185	195	210	200

In simplistic terms, the cost of most animal feeds is a function of cereals and protein prices. Cereals prices for winter 2008-09 look set to be lower than 07-08, but still much higher than historically. The protein element of feed (represented here by soya) looks set to remain fairly firm. An estimated price for cow cake is shown. Other compound feeds (e.g. beef and sheep food) are likely to move in tandem with dairy rations. See previous ABC books for price relationships between different rations.

CROP PROTECTION PRODUCTS

Due to the vast range of pesticide products it is less helpful to show cost changes on a product-by-product basis. There will be large differences in price movements between different active ingredients. As a generality, however, it is thought likely that crop protection costs will rise by up to 10% between harvest 2008 crops, and harvest 2009 crops.

SPECIFIC COST INFORMATION

WAGES

The Agricultural Wages Board (for England and Wales) has proposed an increase of 4.3% for most Grades as from the 1st October 2008. This will take a Standard Workers wage to £6.26 per hour (£9.39 for overtime). However, the AWB minimums are becoming decreasingly important as many businesses are now having to pay above the minimum level to secure staff.

DEFRA conducts a quarterly Earnings Survey of farm workers. The figures shown below are for a full-time male worker, based on the average earnings over the previous four quarters. Estimates for future earnings are provided.

4 Quarters Ending - (£ per week)	2005		2006		2007		2008		2009
	Sept	Mar	Sept	Mar	Sept	Mar	Sept	Mar	
Average Weekly Wage	357.6	353.3	340.6	352.2	352.3	353.0	355.0	365.0	
Hours worked per Week	48.4	48.0	46.1	46.8	47.0	46.9	-	-	

SINGLE PAYMENT INFORMATION

BASIC DATA			2008	2009	2010*
Modulation:	EU Compulsory	... ..	5.0%	5.0%	5.0%
	English Voluntary	... ..	13.0%	14.0%	14.0%
	Scottish Voluntary	... ..	8.0%	8.5%	9.0%
	Welsh Voluntary	... ..	2.5%	4.2%	5.8%
Financial Discipline (<i>estimated</i>)		... ..	0.0%	0.0%	1.0%

* these rates may change as a result of the CAP 'Health Check'.

English Regional Average Rate - *estimated € per Ha before deductions*

Lowland	... ..	143.4	192.2	245.5
Severely Disadvantaged Areas		115.9	155.3	195.1
Moorland	... ..	20.1	26.9	33.7
Historic Percentage	... ..	55%	40%	25%

EXAMPLE SINGLE PAYMENTS - Arable Land

The payment rates below are for one hectare of combinable cropping land. They assume that 1 Hectare of AAPS crops were claimed in all years of the Reference Period (2000-02), and no National Reserve allocation was made. Rates shown are after average Base Area scalebacks for the Reference Period – 1.08% in England; 3.03% in Scotland. Payments converted at £/€ rates shown above. Payments rates are net after all deductions - see information above.

£ per Ha			2008	2009	2010*
Exchange rate for conversion assumed, €1 =			78p	78p	78p
England	Lowland 'Normal'	... ..	215.2	210.1	208.0
	Lowland Set-aside (regional only)		203.8	202.4	204.3
	SDA Normal	... ..	197.6	186.8	176.5
Scotland	Non-LFA	... ..	225.2	223.9	220.0
	LFA	... ..	206.9	205.7	202.2
Wales	Non-LFA	... ..	225.1	221.0	214.7
	LFA	... ..	219.9	215.9	209.7