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PROCEEDINGS

GRAIN IN A BALANCED AGRICULTURAL ECONOMY

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GRAIN IN A BALANCED AGRICULTURAL ECONOMY.

World Grain

The dramatic fluctuations in the international grain market over the past few years can be attributed to changes in supply and demand, rumour, and on occasions to manipulation. Over the four year period 1973-'76 there has been a continued and almost uninterrupted upward trend which was correctly assessed in articles published in the Irish Farmers Journal and the Irish Times in 1973-'74. Comparison of the 1972 and 1975 wheat prices clearly indicate the magnitude of the changes that have taken place in that short period.

	<u>1971</u>	<u>1975</u>
Irish	£34.55	£67.20 /ton.
Canadian Spring	35.00	100.00

In the long term prices will reflect the supply and demand position and the balance between production and consumption is therefore of vital importance to both exporting and importing countries, for different reasons. The figures given below show the final position for 1974/'75 and projections for the current year.

Cereal Balance - mill. tons (USDA)

	<u>Wheat</u>			<u>Feed Grains</u>		
	<u>Product</u>	<u>Usage</u>	<u>Balance</u>	<u>Product</u>	<u>Usage</u>	<u>Balance</u>
1974-'75	350.3	352.2	-1.9	570.7	576.1	-5.4
1975-'76	348.5	354.5	-6.0	589.9	588.1	+1.8

This is obviously a tight supply situation which has not been improved by the recent agreement between the USA and USSR. Under the terms of this agreement the Soviets will purchase 6 million ton of maize and wheat annually from the USA for an initial 5 year period. The quantity may be adjusted upward by mutual agreement.

On a global scale production patterns show a great regional imbalance and in changing economic circumstances many of the countries which are now classified as under-developed could have a profound influence on future trading patterns. With a rapidly expanding world population

grain could be a scarce commodity in the 1980's, and a barter system which was suggested after the oil crisis in 1973 might become a reality. The following analysis gives some idea of the difficulties which may be encountered in feeding a world ~~population~~ which will have almost doubled in twenty years from now.

1. 42 per cent of the world's cereals were produced in the developed countries with 20 per cent of the world's population.
2. The Socialist countries, with 30 per cent of the world's population, produced 38 per cent of all grains.
3. ~~Developing countries with nearly half the world's population produced only 20 per cent.~~

Per capita production and consumption statistics are significant indicators of long term world demand. U.S. government surveys show that per capita production for the period 1964-'73 increased by 17.6% which is just keeping ahead of consumption which showed an increase of 16.8% over the same period.

The regional break-down shows some remarkable changes.

<u>Region</u>	<u>Per cap. Product</u> <u>1964/5</u>	<u>1973/4</u>	<u>Kg</u> <u>change %</u>	<u>Per cap. Consumpt.</u> <u>1964/5</u>	<u>1973/4</u>	<u>Kg</u> <u>change %</u>
U.S.	821	1107	+17.6	697	841	+20.7
Other exporters	648	715	10.3	331	365	10.3
Soviet Union	596	827	38.8	497	737	48.3
W. Europe	313	390	24.6	382	448	17.3
E. Europe	493	689	39.8	569	723	27.1
Japan	27	5	-81.5	115	183	59.1
Developing	75	75	0	87	98	12.6
Total World	204	240	17.6	202	236	16.8

Eastern and Western Europe recorded noticeable net gains. U.S.S.R. showed a net loss although production increased by almost 40%. The greatest swing occurred in Japan where grain production showed a dramatic decline and consumption showed a significant increase. The fact that developing countries were unable to increase production during a period when foreign aid was generous should be cause for some concern.

World Trade

A summary of the trading situation in wheat, based on projections for 1974/5, emphasises the importance of grain as an international commodity. The figures given are for the 1973/74 season but there has been little change since that time.

<u>Country</u>	<u>Production</u>	<u>Exports</u>	1973/74
Canada	17.0 mill. ton	15.0 mill. ton	
Australia	11.0	7.0	
Argentina	6.0	1.0	
W. Europe	50.0	9.0	
E. Europe	31.0		
U.S.S.R.	80.0	4.0	
Others	91.0	1.0	
USA	47.0	30.0	
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World Total	333.0	67.0	
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Exports from the United States account for almost one half of the total world trade in wheat

Imports

The requirements of importing countries for the same period, set out on a regional basis, are as follows.

W. Europe	9.5 mill ton
E. Europe	4.5
U.S.S.R.	8.0
N & C America	2.5
S. America	5.5
Near East Asia	3.5
Far East Asia	25.0
Africa	7.5
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Total	66.0
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Carry-over stocks of wheat have been reduced from 73.4 mill tons in 1971/'72 to 51.0 mill tons in 1975/76 which is about 2 months supply. The position for all grains is even more critical and end season stocks are

now estimated at 97.4 mill tons or about 6 weeks supply. In the long term it may be impossible for present exporting countries to meet world demand, and we should now be planning for a permanent increase in domestic production to cover the main requirements of human nutrition and as a support for our livestock industry.

Trading Opportunity

Ireland has little involvement or interest in international grain trading. We are, like the UK, a deficiency area and import 0.5 mill tonne of wheat, maize and barley each year valued at about £40 mill. The UK have an import requirement of almost 4 mill tons of all grains but, conscious of the trading opportunities offered by EEC membership, export substantial quantities of both feed barley and malting barley to Northern Europe. During the first four months of the 1975/76 season exports of malting barley to W. Germany totalled 88,000 tonne accounting for well over one third of the imports. During the period August-November imports of feed barley from the UK amounted to 144,000 tonne bringing the total imports of barley from the UK to 232,000 tonne. The price of malting barley is considerably higher in Ireland than in the UK and sales of malt and malting barley to Europe have shown a significant decline over the past 12 months.

Transport

The cost and availability of transport is a vital factor in international grain trading and can have a real influence on the market. Figures given earlier in this paper show that almost 70% of the grain in trade is shipped from the USA and Canada to Europe and the Far East. Developments in the freight market are therefore of considerable importance to both exporter and importer.

Ocean freight rates showed a steep increase after the oil crisis in 1973, reached a peak in mid-1974 and then declined. Average rates for shipment to the UK over the period 1971-1975 (£ - long ton) clearly show this trend.

Ocean Freight Rate (£ - Long ton).

<u>Origin</u>	<u>1971</u>	<u>1972</u>	<u>1973</u>	<u>1974</u>	<u>1975</u>
Canada	£2.15	£2.40	£5.90	£8.75	£5.95
US Atlantic Ports	2.05	2.555	6.10	9.00	6.35
Australia	6.05	6.20	11.90	15.85	9.90
Argentina	3.45	3.35	9.15	15.00	8.95

Rates have further declined since October 1975, due mainly to the high tanker surplus, and in February 1976 Atlantic freights (£2.50) were similar to 1972 levels. The decline would have been more pronounced but for the depreciation of sterling over the period.

Coaster rates followed the same pattern but unlike ocean freights they are still significantly higher than in 1973, reflecting a more buoyant continental trade since the UK joined the EEC.

Coaster Rates Continent and UK (£ - long ton)

	<u>1972</u>	<u>1973</u>	<u>1974</u>	<u>1975</u>	<u>1976</u>
Rotterdam/E. Coast Ports					
U.K.	1.90	2.20	4.00	3.25	2.95
Rouen/London			4.00	3.25	3.25

There may be some expansion in world trade in 1976 but it is unlikely that freight rates will show any significant recovery. This is important and could influence the landed price of French grain at Irish ports.

Future for grain

The present strength of the market is an expression of confidence in grain and future trading confirms the opinion that the supply position will remain tight. Comparison of the price of milling and feed grains in the UK in 1974 and 1975 indicates a very stable position and suggests that price fluctuations may not be as great as during the past.

	<u>Milling Wheat</u> (U.K.)		<u>N. Spring</u> (U.S)		<u>Barley</u>		<u>Maize</u>	
	<u>1974</u>	<u>1975</u>	<u>1974</u>	<u>1975</u>	<u>1974</u>	<u>1975</u>	<u>1974</u>	<u>1975</u>
August	60.15	60.50	89.95	95.50	53.30	56.00	70.75	71.60
September	60.20	65.70	95.70	100.10	53.25	59.10	69.85	70.35
October	62.00	67.70	107.15	100.60	56.30	60.80	74.10	66.70
November	66.20	65.20	107.30	99.95	59.50	60.30	73.70	63.40
December	66.85	65.30	104.45	95.10	60.25	60.60	71.60	66.20
1975/'76								
January	65.20	66.15	91.95	95.10	58.80	62.10	60.25	64.70
February	56.50	66.90	85.00	93.00	50.80	62.55	56.15	60.60
March	50.80	69.16	78.35	96.75	48.65	64.66	57.25	69.15
April								

The dramatic drop in prices in January 1975 is related to the general recession in world trade and to the prefixing of EEC levies at zero at a time when world prices were falling.

Grain in a balanced Irish agricultural economy

The overall grain position in the EEC shows a shortage of about 14 million tons on present production and the forecast for the 1980's indicates a similar situation at best. A significant increase in production is unlikely as there is little scope for an increase in the tillage acreage. Increased production must therefore come from increased yields and this will hardly keep pace with demand. Crop statistics over the past 3 years suggest that the maize acreage has reached its practical limit and it is therefore important to, at least, maintain the acreage of feed wheat if the present balance of payments situation is to be held.

Ireland was the only country in Europe to reduce grain production over the period 1972-'75 and on present values this would appear to have been a costly mistake. This country is now faced with a serious increase in the cost of imported feed grains at a time when exports from the industrial sector are severely restricted.

The current value of imported cereals and cereal products for animal feeding is in excess of £30 million and this could be well in excess of £70 million before the end of the decade if our increased demands are not met by increased production.

The reduction in cereal acreage over the past 4 years has resulted in a significant loss in revenue to the farming community which is unlikely to be recovered from other enterprises. The increase in livestock numbers to their present level might have been achieved without any drastic reduction in the cereal acreage. Production figures for wheat and barley for the period 1971-'75 and corresponding values, based on average price to grower, are given in Tables 1 and 2. The financial loss to growers, in excess of £14 million pounds, which is high by any standards represents the value of the grain only. The total figure would include the value of straw and the loss to the community in supply and other services.

It has been extremely difficult to generate an interest in grain production since we joined the EEC. In the business or industrial sector this would be associated with unprofitability or an unstable or declining market. This is not true for grain as ex farm prices have risen faster than production costs and we are in an expanding market situation. Gross margins per acre, Table 3, compare with most farming enterprises and when capital and labour inputs are considered the comparison is even more favourable. These figures are based on average national yields which are

well below the commercially attainable targets of the present varieties of both wheat and barley. The specialist grower can achieve a net income per acre which would be difficult to match by any other farm enterprise.

Expansion in grain production

A cold analysis of the economics of grain production can offer no explanation for this remarkable drop of 120,000 acres in the area under grain. The answer must be found elsewhere and I suggest the following points as a possible explanation.

1. The almost total emphasis of the Department of Agriculture, Research Institutes and the farming press on Dairy, Beef and other animal enterprises.
2. The failure to recognise that grain production is becoming increasingly important as a support for livestock enterprises, and that it has a significant influence on our balance of payments.
3. Irish farm structure.

The first two points are statements of fact and require no further development. The third is important and may be the key to the success of any drive to increase the acreage under grain. In the Farm Management Survey undertaken by the Institute about 30 per cent of the farms in the sample had a grain enterprise. Some figures taken from the report for 1973 and 1974 are set out in Tables 3 to 6. Tables 4 and 5 deal with yields and show that 21% of the farms growing wheat and 31% of the farms growing barley had yields of less than 25 cwt/acre. Tables 6 and 7 show that more than 60% of the farms had less than 10 acres of grain. These figures came as a surprise and suggested that Irish farm structure could be responsible to some extent for the very low ratio of tillage to grass. It is my opinion, after several years experience as a public relations medium for grain production that it is impossible to generate enthusiasm for grain on a broad economic basis. Appeal to a wide spectrum is also unlikely to be successful and it will be necessary to direct publicity to selected sections of the farming community, i.e., the 10 acre or the 100 acre grower. A study of our farm structure indicates

clearly that in the majority of holdings grain is not the major enterprise and that both production technology and the economics of grain are not taken too seriously. The specialist grower is an efficient operator, making use of modern technology, but he can only expand production by increasing the size of his holding or renting land. It is my considered opinion that a drive for increased production must be orientated towards a particular type of grower and modified if necessary for regional differences in structure. The regional idea has much to recommend it and it should be possible to establish realistic production targets through consultation between the IFA County Executives, local grain merchants and co-operatives.

Data published by the Central Statistics Office on the size and number of holdings in each province could be used as a guide in the selection of farms or areas with a reasonable prospect of expansion.

The figures given in Table 8 for the number of holdings are taken from Statistical Abstracts. The per centage of land in each group is calculated from the number and size of holdings and is an approximate figure. These figures and the data given in the Farm Management survey on production patterns and yields clearly indicate that a selective approach will be necessary if we are to secure a significant expansion in grain production on a permanent basis.

Projections.

Projections on the supply and demand situation suggest that grain could be a scarce commodity in the 1980's and countries like Ireland who have the potential to become largely self sufficient should take a serious look at the implications of complacency. Grain production is highly integrated with animal enterprises in Denmark and while the Danish system is probably too intensive for the Irish way of life it may be necessary to move in that direction over the next decade. The Danes on less than $\frac{2}{3}$ our land area produce and use 7 mill. tons of grain to support their dairy and pig enterprises and for human nutrition. In the unsettled political and economic conditions of today priorities change rapidly and it is a grave mistake to put all our agricultural eggs in one basket. The recent statement by M. Lardinois, the E.E.C. Agricultural Commissioner on the responsibility of member states for their own surpluses should be regarded as an early warning and provide a real incentive for our planners to produce a blue-print for a balanced economy. It should be remembered also that grain imports cost this country about £40 mill. each year and put a substantial and unnecessary strain on our balance of payments.

Potential

Some idea of the potential of grain can be obtained from the figures given in Table 9. The yields obtained on farms where grain is the first enterprise are considerably higher than the national average and could be regarded as the commercial potential. When these are converted into income per acre and the value of the straw is also considered there is no doubt that grain can compete. The low capital and labour inputs are additional advantages in present financial circumstances.

Farm Storage

Most of the specialist growers have invested in storage facilities, some of which are quite sophisticated, and have benefited from the steady and almost uninterrupted rise in grain prices since 1972. There has been a quiet revolution in grain marketing in Ireland since 1969 and while the quantity of grain held on farms is much lower than in the UK it now represents a significant percentage of the total crop.

Price trends in the UK since August 1975 are given in Table 10 and show clearly the advantages of farm storage in a year like 1975-'76. In the long term the financial gains may not be as striking but under the E.E.C. marketing arrangement growers who store grain are protected against loss by the operation of a storage premium.

This brings me to the question of price structure and the relationship between Irish prices and those obtaining in the other member states of the community. Basic E.E.C. Intervention prices for the 1976 crop and the corresponding Irish prices are set out in Table 11.

The Commission has introduced a two-tier price for wheat to encourage the cultivation of quality varieties which will qualify for a higher intervention price. This differential price system has been rendered necessary by the rapid spread in the acreage sown to varieties like Maris Huntsman and Clement which have very high yield potential but unacceptable baking properties. These wheats have produced a crisis situation in the E.E.C. milling industry and created serious problems for Intervention Authorities in the disposal of stocks.

The new system is based on relative feed values of coarse grains with a premium for milling wheat. The agreed figures with related Irish prices are given in Table 12.

Table 12.

	<u>Feed Values</u>	<u>Related Irish Price</u>
Milling Wheat	122	£66.00
Maize	110	59.50
Feed Wheat	106	57.35
Barley	102	55.20

The Irish prices for feed wheat and barley are related to the minimum guaranteed price of £66 per tonne which will be paid for wheat of milling quality at a moisture content of 20.0%. On this basis the ex-farm value of barley at a moisture content of 20.0 based on the Intervention price (moisture content of 15.0%) is less than £54 tonne.

Irish grain prices must in the long term be realistically tied to Intervention if the users of grain - the pig, poultry and cattle feeders are to stay in business. Average E.E.C. market prices at the Reference Centres in France, Germany and the Netherlands, over the period August 1975 to March 1976 were less than 5% higher than intervention level and Irish feeders must obtain their grain at this kind of price to compete in the export market.

The cost of feed is now a critical factor in animal production and it would be relatively easy to price ourselves out of business if the cost of feed grain was allowed to escalate independently. Market value will be determined by the ability of feeders to pay and make a margin on their investment, and on the availability of alternative feeds. Grain should be considered as an essential link in an integrated agricultural economy and the price that growers can hope to obtain will be governed by profitability in other sectors.

Future

In an article in the 1971 issue of Livestock Review, it was stated "Recent developments in the international grain market suggest that the days of cheap grain have passed so that even without a levy system such as operated by the E.E.C., Irish growers should have little difficulty in expanding production by 100,000 to 200,000 acres. With increased demand from feeders and a market in the U.K. and Europe for feed grain, malting barley and malt, this figure could be even higher. Whether our feed grain is exported as such in the form of meat will depend on development in intensive feeding". The position has not changed; the markets are still there and the price structure is now more attractive. We have however failed to take advantage of a favourable trading situation mainly due to our marketing structure. Trading is the name of the game in E.E.C. and we are now part of the Community. Current market prices and the continued introduction of new high yielding varieties do produce an incentive for increased production but in the absence of a comprehensive grain policy it may be difficult to generate sufficient drive to achieve optimum expansion. The new varieties released over the last decade have had a considerable influence on production patterns. All the new varieties have a significantly higher yield than the older types but have a much shorter useful life. Some of the wheats, and in particular M. Huntsman and Clement, have very poor milling and baking properties, and have provided problems for the E.E.C. milling industry. These poor varieties now constitute a significant proportion of the wheats grown in France and Germany and it has been necessary to introduce new quality standards for intervention buying. The E.E.C. Commission in Brussels and "Groupement des Associations Muenieres des Pays de la CEE" have organised a series of collaborative tests to determine minimum quality standards for baking wheats, and which will effectively eliminate feed wheats for the recommended list of varieties. The work will not be completed before the 1976 harvest but the committee of experts from the nine member states have agreed on a preliminary standard which will be applied this year.

Intensive cereal growers have become very knowledgeable on varieties and conscious of the influence of varietal characteristics on the profitability of their enterprise. This will be evident from a comparison of seed sales in Ireland in 1973 and 1975 given in Table:-

Table 13 - Seed Sales

<u>Variety</u>	<u>1973</u>	<u>1975</u>
Quern	86.5%	20.0%
Sappo.	1.0	30.0
M. Dove	1.0	14.0
Kleiber	1.5	6.0
Kolibri	2.0	12.0
Sirius	-	5.0
Drabant	-	5.0
M. Widgeon	2.5	2.0
Cappelle	1.5	-
M. Huntsman	-	5.0

The variety Sappo. is now our most popular spring wheat and yields as high as 2.8 tonne per acre have been recorded. It is susceptible to sprouting under Irish conditions and even in an average year many samples are rejected for milling. It has excellent milling and baking quality when harvested in sound condition. Maris Huntsman is a winter wheat with unacceptable milling and baking characteristics. It has a commercial yield potential of 3.5 tonne per acre. A yield of almost 4.5 tonne per acre was recorded in a competition for M. Huntsman Growers in the U.K. in 1974.

The ceiling has not yet been reached in yield, grain quality or disease resistance with the present grain varieties according to Mr. John Bingham of the Cambridge Plant Breeding Institute. The new variety, Hobbet, a semi-dwarf from C.P.B.I. has shown exceptional yielding ability and has been distributed for large scale multiplication. In Schleswig - Halstein, Northern Germany, new wheat varieties have a yield potential of 4.5 tonne per acre with an approximate average yield of 3.2 tonne per acre. The increased physiological efficiency of these wheats, together with advances in husbandry practices could increase our national average yields dramatically over the next decade.

Table 1: Wheat

Year	Production tons	Price/ ton	Income	Income £67.20 (1975 price)
1971	298.000	£34.55	£10.296 mill.	£20.026 mill.
1972	208.850	34.55	7.216 "	14.035 "
1973	143.300	55.50	7.953 "	9.630 "
1974	22.500	58.60	-	-
1975	160.000	67.20	10.752 "	10.752 "

Table 2: Barley

Year	Production tons	Price/ ton	Income	Income £57.50 (1975 price)
1971	976.000	£30.00	£29.280 mill.	£56.120 mill.
1972	966.000	30.00	28.890 "	55.545 "
1973	890.000	45.00	40.050 "	51.175 "
1974	-	-	-	-
1975	877.000	57.50	50.428 "	50.428 "

Loss in farm income over the period amounted to approximately £40 mill.

Table 3: Gross margin per acre for certain enterprises

Enterprise	1972	1973	Year 1974	1975 (2)	1976 (2)
Wheat	34	66	61	75	75
Feed Barley	26	47	56	51	51
Malting Barley	34	50	60	62	62
Sugar Beet	40	61	97	171*	170
Creamery Milk	65	78	67	90	111
<u>Cattle</u>					
Calf to Stores	25	38	27	44	48
Single Suckling	27	31	20	29	35
Store to Finish	18	20	27	60	49
Winter Finishing ¹	-	101	47	212	168

1. Beginning in the Winter of 1972/73

* Part of the increase in 1975 is due to a difference in pricing mechanism in relation to pulp.

2 Estimates

An Foras Taluntais - Farm Management Survey

Table 4: Wheat - yield per acre 1973/74

Yield (cwt)	< 25	25-30	30-35	35-40	40-45	> 45
Number of farms	28	19	32	30	16	9
Percent of total	21	14	24	22	12	7

Table 5: Feed Barley - yield per acre 1973/74

Yield (cwt)	< 25	25-30	30-35	35-40	40-45	> 45
Number of farms	185	164	93	82	54	20
Percent of total	31	27	16	14	9	3

An Foras Taluntais - Farm Management Survey

Table 6: Feeding Barley 1973

Size of enterprise (acres)	< 10	10-20	20-50	> 50
Number of farms	276	75	64	14
Yield (tonne)	1.3	1.4	1.4	1.6
Farm size (acres)	74.5	125.2	179.3	247.1
Percent of total farms	64.0	17.0	15.0	4.0

Table 7: Feeding Barley 1974

Size of enterprise (acres)	< 10	10-20	20-50	> 50
Number of farms	267	69	41	7
Yield (tonne)	1.4	1.6	1.7	1.9
Farm size (acres)	75.5	142.6	204.7	292.7
Percent of total farms	69.0	18.0	11.0	2.0

TABLE 8.

	Number of Holdings - ('000).						Size in Acres.
	<30	30-50	50-100	100-150	150-200	200 ⁺	
Leinster	30.5	13.4	15.1	5.8	2.7	2.9	70.4
Munster	31.5	18.2	24.0	7.9	2.9	2.5	86.7
Connaught	46.9	20.6	11.3	1.8	0.5	0.6	81.8
Ulster	24.4	8.0	5.9	1.3	0.5	0.5	40.5

Expressed as percentage

Leinster	43	19	21	8	4	5
Munster	36	21	28	9	3	3
Connaught	57	25	14	2	1	1
Ulster	60	20	15	3	1	1

Per centage of the total land in each group

Leinster	21	12	24	18	10	15
Munster	17	13	31	10	3	12
Connaught	39	25	24	7	3½	3½
Ulster	42	18	22	9	5	6

TABLE 9. Cereal Yields

Year.	<u>Specialist Grower.</u>		Nat. Average.
	<u>Acres</u>	<u>Tons/acre</u>	
<u>Spring Wheat</u>			
1973	85	2.00	1.76
1974	154	2.66	1.60
1975	38	2.10	1.62
<u>Average</u>		<u>2.25</u>	<u>1.66</u>
<u>Winter wheat.</u>			
1973	36	2.51	
1975	86	3.18	
<u>Barley</u>			
1972	130	2.00	1.55
1973	370	1.93	1.48
1974	367	2.15	1.52
1975	352	1.90	1.51
<u>Average</u>		<u>2.00</u>	<u>1.52</u>
<u>Oats</u>			
1972	60	2.25	1.37
1975	135	2.03	1.32
1975	82	2.47	
(Winter)			
Average Spring		<u>2.14</u>	<u>1.35</u>

TABLE 10. Price Trends UK. 1975'76

1975	<u>Milling wheat</u>		<u>Feed Wheat</u>		<u>Barley</u>	
	<u>1974</u>	<u>1975</u>	<u>1974</u>	<u>1975</u>	<u>1974</u>	<u>1975</u>
August	60.15	60.50	56.65	57.30	53.30	56.00
September	60.20	65.70	55.45	60.70	53.25	59.10
October	62.00	67.70	57.60	62.60	56.30	60.80
November	66.20	65.20	60.30	61.50	59.50	60.30
December	66.85	65.30	60.95	61.80	60.25	60.60
1976						
January	65.20	66.15	59.15	63.15	58.80	62.10
February	56.50	66.90	51.00	63.60	50.80	62.55
March	50.80	69.16	45.90	65.88	48.65	64.66
April	50.65	72.86	47.25	70.43	49.45	69.20

Average spot prices £ per tonne.

TABLE 11. Intervention Prices. 1976 Crop.

	<u>E.E.C.</u>	<u>Irish</u>	<u>Irish Ex Farm</u>
Milling Wheat	£77.20	£75.38	£64.10
Feed wheat	68.37	64.76	55.00
Barley	68.37	64.76	55.00

Moisture contents

E.E.C.	16.0%
Irish	15.0
Ex Farm	20.0

TABLE 12. Feed Values.

	<u>Feed value</u>	<u>Related Ex Farm</u> <u>Irish Prices</u>
Milling wheat.	122	£66.00
Maize	110	59.50
Feed Wheat	106	57.35
Barley	102	55.20

TABLE 13. Seed Sales

<u>Variety</u>	<u>1973</u>	<u>1975</u>
Quern	86.5%	20.0%
Sappo.	1.0%	30.0%
M. Dave	1.0%	14.0%
Kleiber	1.5%	6.0%
Kolibri	2.0%	12.0%
Sirius	-	5.0%
Drabant	-	5.0%
M. Widgeon	2.5%	2.0%
Cappelle	1.5%	-
M. Huntsman	-	5.0%