

EIGHTY-FIRST ANNUAL REPORT

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For the year ended July 31, 1987

BROADLEAVED WEEDS — hard-to-kill



Cleavers



Wild buckwheat



Cow cockle



White cockle



Hemp-nettle



Redroot pigweed

McGILL UNIVERSITY

BROADLEAVED WEEDS — harder-to-kill



American dragonhead



Tartary buckwheat



Lady's-thumb (smartweed)



Milkweed



Scentless chamomile



Russian thistle



Prostrate pigweed (amaranth)



Chickweed



Round-leaved mallow

GRASSY WEEDS



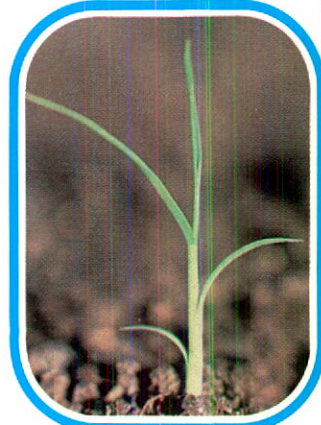
Wild oats



Green foxtail (millet)



Proso millet



Barnyard grass

United Grain Growers Limited



COVERS: In line with a policy established twelve years ago, the directors of United Grain Growers again present a cover to the annual report that they hope will be of interest and permanent use to farm people. In past years, field crop seeds, breeds of cattle, weed seeds, breeds of horses, wild flowers, birds that overwinter on the Prairies, song birds of the Prairies, early tractors, early combines, steam tractor engines and hardy perennial flowers have been shown. This year a selection of 43 weed seedlings are illustrated.

The first step in selecting a herbicide involves weed identification. Most farmers have little trouble identifying common weeds in their mature state, but seedlings are more difficult. Yet knowing the kind of weed before spraying is important. Older weeds are harder to kill and need higher rates of herbicide, and crops are more sensitive when sprayed later on.

These photographs provide farmers with a way to identify the most common weeds in their early stages so they can be sprayed with herbicides earlier.

To make this series of photographs more practical, it has been divided into four parts: winter annuals, grassy weeds, hard-to-kill perennials and hard-to-kill and easy-to-kill broadleaved weeds.

A short description of each weed seedling, pointing out its unique features, appears in Appendix 9.

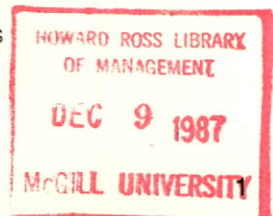
An article in Appendix 4 discusses ways and means farmers can save on herbicide expenditures.

Associated Companies

United Oilseed Products Ltd.
Prince Rupert Grain Ltd.
Ridley Grain Ltd.
Hybrid Canola Joint Venture
The Grain Insurance and Guarantee Company

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Director's Duties

United Grain Growers is a farmer-owned company with the objective of furthering the economic well-being of Western Canadian farmers through providing commercial services and farm policy influence.

The duties and responsibilities of the board of directors of United Grain Growers are to direct the affairs of the company, guided by the Act of Incorporation, the by-laws and member policies so that the objectives of the company may be effectively achieved.

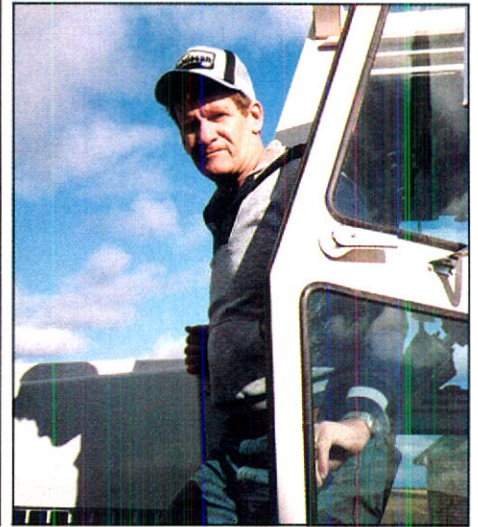
The directors are the elected representatives of the shareholders, and guide the administration and management of the organization. Their common task is to effectively develop and administer an organization so it is both responsive to the needs of its members and to the success of a viable operation.

To achieve these objectives, the board of directors' role is to:

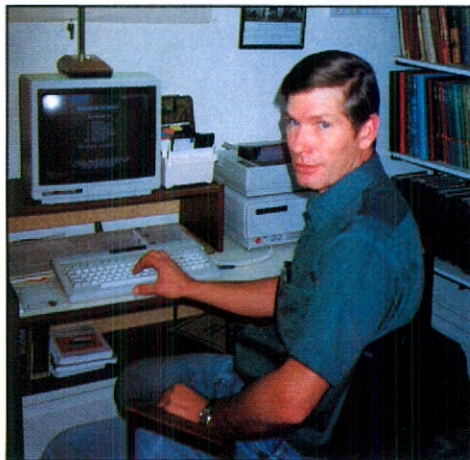
- Act as the final authority in corporate policy decisions. It advises senior management on matters that the board deems worthy and necessary.
- Act as a guardian and custodian for the company. The board must safeguard the company's assets and strive to meet the needs of its members.
- Lend sound continuance to the organization through an effective and efficient process. Select and appraise the general manager, treasurer, corporate secretary and manager of farm information services.
- Be perceived as a leader by having the authority and responsibility to decide what is to be done, by whom and to what standard, while identifying key business indicators which are vital to the well-being of the organization.



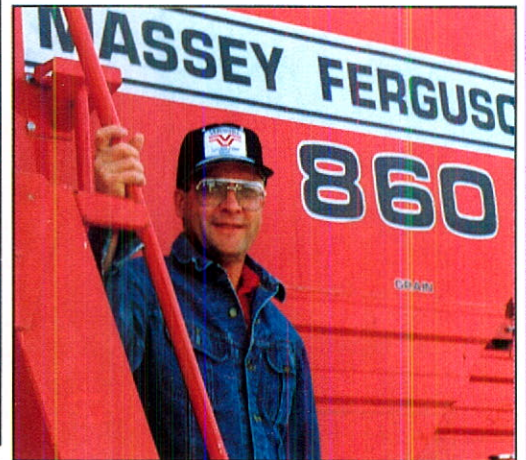
Buck Spencer



Lorne Hehn



Don Dobson



Roy Piper

Board of Directors

L. F. J. Hehn Markinch, Sask.	R. W. Piper Elrose Sask.
W. G. Morken Sturgis, Sask.	D. L. Dobson Manitou, Man.
J. G. Omichinski Oakville, Man.	T. J. Mathieson Watson, Sask.
Sam Sych Brownvale, Alta.	B. F. Spencer Nobleford, Alta.
T. M. Allen Taber, Alta.	Bryan Perkins Wainwright, Alta.
D. R. Cusitar Russell, Man.	Merle Layden Innisfail, Alta.

Officers

L. F. J. Hehn, *President*, Winnipeg, Man.
 D. R. Cusitar, *First Vice-President*, Russell, Man.
 T. M. Allen, *Vice-President*, Taber, Alta.
 W. G. Morken, *Vice-President*, Sturgis, Sask.
 G. W. Moore, *General Manager*, Winnipeg, Man.
 J. G. L. Bennett, C.A., *Treasurer*, Winnipeg, Man.
 M. Sherman, *Secretary*, Winnipeg, Man.

Auditors: Price Waterhouse, Chartered Accountants

Banks: Royal Bank of Canada (lead), Canadian Imperial Bank of Commerce, Toronto Dominion Bank, Bank of Montreal, Bank of Nova Scotia

Incorporated: July 20, 1906

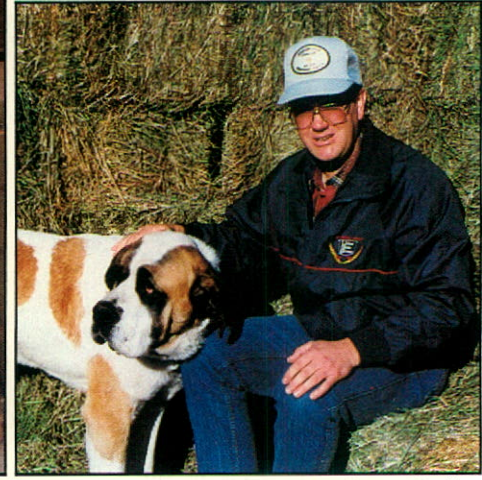
Head Office: 433 Main Street, Winnipeg, Canada
 P.O. Box 6600, Winnipeg, Manitoba R3C 3A7



Roy Cusitar



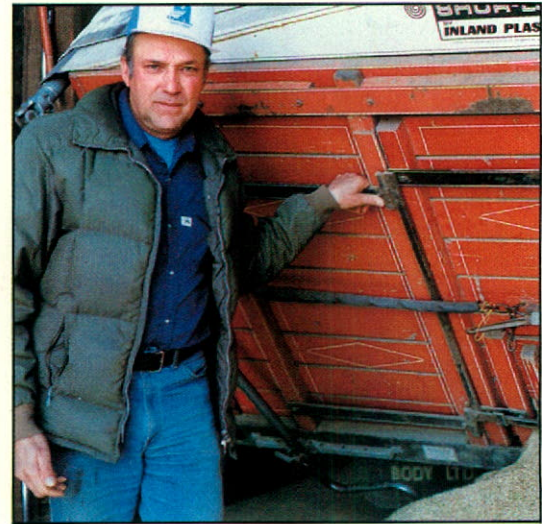
Ted Allen



Bryan Perkins



Joe Omichinski



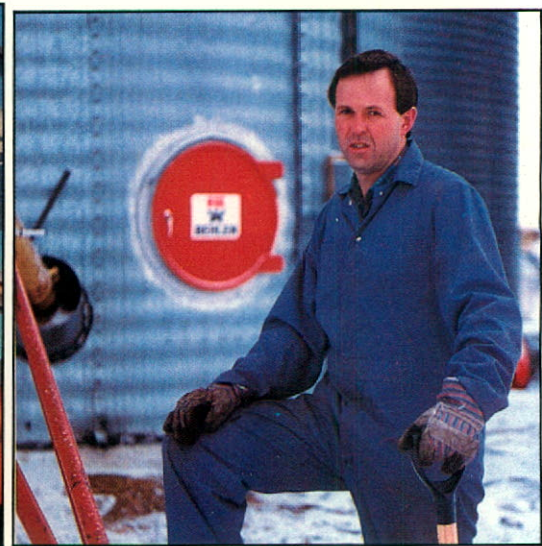
Sam Sych



Bud Morken



Tom Mathieson



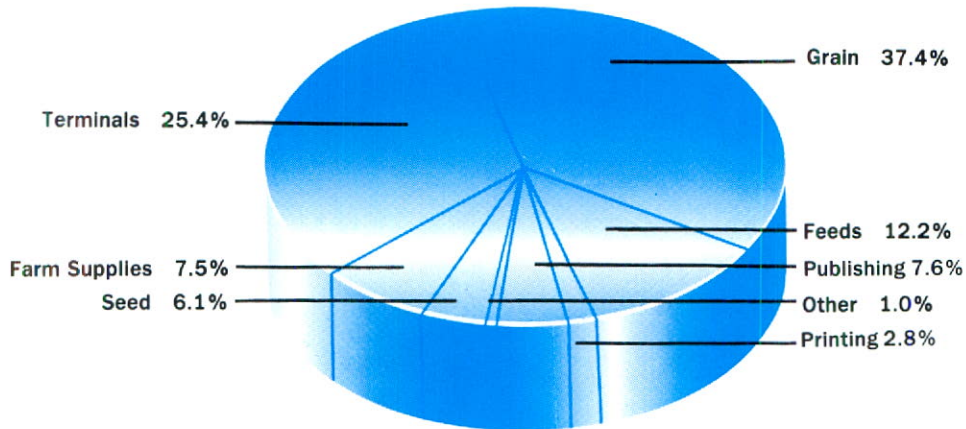
Merle Layden

Highlights

	1987	1986
Financial		
Sales and revenue from services	\$905,941,000	\$984,211,000
Operating revenues	124,277,000	125,319,000
Earnings before patronage dividends and income tax	6,809,000	10,108,000
Net earnings	2,744,000	2,088,000
Working capital	48,839,000	46,064,000
Capital expenditures	12,826,000	12,298,000
Total investment in fixed assets	234,059,000	223,519,000
Accumulated depreciation on fixed assets	103,056,000	93,603,000
Paid-up share capital	24,468,000	24,425,000
Shareholders' equity	95,714,000	95,640,000
Cumulative total of shareholders' dividends paid	26,861,000	25,177,000
Cumulative total of patronage dividends, including interest thereon	89,949,000	88,668,000
Statistical		
Country handling — in tonnes	5,041,000	4,868,000
Elevator licensed storage capacities — in tonnes		
Country	1,256,000	1,296,000
Terminals	424,000	424,000
Number of country elevator manager-units	309	326
Number of shareholders	92,917	94,544
Number of shareholders' locals	281	284

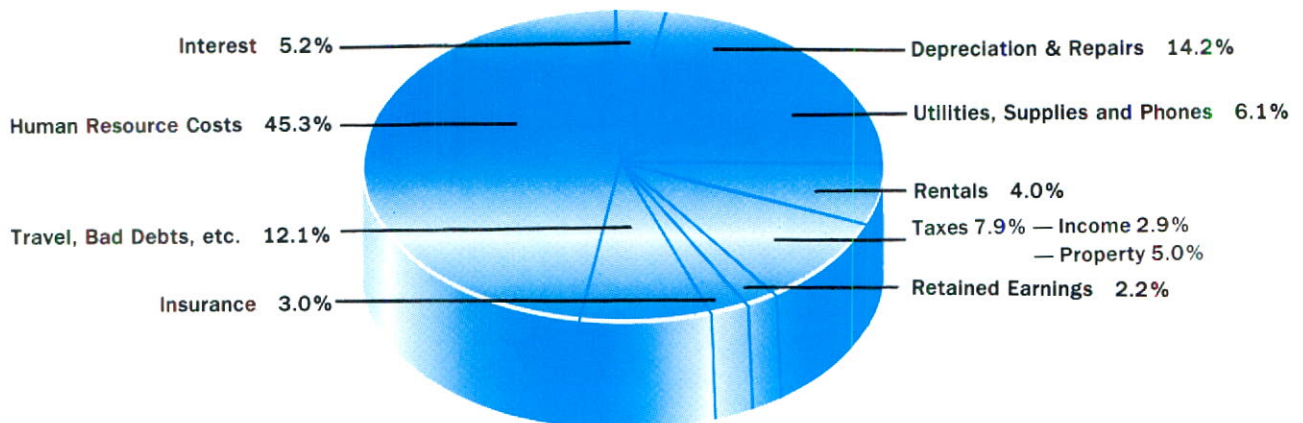
TOTAL REVENUES — \$124,277,000 = 100%

Your Company's Operating Revenue of \$124,277,000 was earned this way



TOTAL DISTRIBUTIONS — \$124,277,000 = 100%

Your Company's Operating Revenue of \$124,277,000 was distributed this way



Report of the President

on behalf of the Board of Directors



L. F. J. Hehn
President

The financial results of United Grain Growers in its 81st year were unsatisfactory from a standpoint of return on investment. Earnings on operations before income taxes dropped from \$10.1 million in 1985/86 to \$6.8 million, the lowest in 10 years.

Country grain receipts of 5.0 million tonnes were second only to the record 5.3 million tonnes handled in 1983. Extensive grade losses, however, allowed only a slight increase in revenue.

Terminal handlings of 3.8 million tonnes were the fourth highest on record and well up from the previous year's 3.2 million. However, revenue from grain drying, and sales of screenings and pellets were down \$6 million, another reason for the sharp drop in earnings on operations this past year.

Unsatisfactory earnings from feed,

fertilizer, printing and publishing operations contributed to the generally poor financial results this past year.

The board of directors of your company, in view of the financial picture, has elected not to authorize a patronage dividend on 1987 earnings.

When income taxes of \$3.8 million in the current year are provided for, net earnings for the year were \$2.7 million compared to \$2.1 million the previous year.

Working capital increased by \$3 million to a record \$49 million.

Key operating and financial results were:

● **Country and Grain Marketing Operations.** Net earnings from handling and marketing grain last year increased from \$1.2 million to \$1.9 million. The company had the second highest grain handling on record, 5.0 million tonnes, up from the previous year's 4.9 million tonnes.

A \$6.3 million increase in handling revenue was due mainly to higher shipments out of country elevators. Unloads at 5.1 million tonnes were well up from the 4.4 million-tonne shipments the previous year.

Earnings from country operations were much lower than budgeted due to intense competition for grades. Large quotas on high-quality grains and small quotas on low-quality grains put heavy pressure on elevator managers. Audit results of grain inventories showed a grade loss of \$3.1 million.

Expenses for country elevators last year were up, with repairs being a major increase. Salary costs were up nominally in spite of staff reductions.

Grain marketing operations enjoyed a sharp increase in sales of Western feed grains to Eastern Canada. In Western Canada a big increase in off-farm sales of feed barley occurred, much of it due to your company's contract option of on-farm purchases.

Malting barley permits for the industry increased substantially this past year. UGG permits handled were up, but your company's share of total permits dropped sharply since your Van-

couver terminal is limited in its capacity to move malting barley.

A substantial export market for peas was developed this past year by UGG marketing operations. In cooperation with your company's seed division, overseas sales for other special crops are being developed.

● **Terminal Operations.** Industry shipments through terminal elevators at the four major ports totalled 31.8 million tonnes, compared to 24.7 the previous year. This was mainly due to the aggressive Canadian Wheat Board sales program.

Receipts at all terminal elevators were also up sharply, moving from 24.7 million tonnes to 31.2 million. The biggest increase occurred at Prince Rupert where receipts were up 174 per cent followed by increases of 34 per cent at Churchill, 24 per cent at Thunder Bay and 8 per cent at Vancouver.

United Grain Growers' volumes at Thunder Bay increased by 29.7 per cent and Vancouver receipts rose by 7.3 per cent.

In spite of the very dramatic increases in both receipts and shipments, earnings from your terminal operations were down considerably. Increases in both cleaning and handling revenues were more than offset by decreases in revenue from the sale of by-products as well as a \$4.5 million drop in drying revenue.

During the year, prices of Thunder Bay grain screening's pellets decreased from \$36 to \$5 per tonne. Overall revenue from by-products was down \$1.6 million in spite of the higher shipments of grain and by-product tonnage.

Agreement was reached with the Vancouver Grain Workers Union in June. The new 3-year agreement which expires on Dec. 31, 1989, gives wage increases of 0 per cent, 2 per cent and 3 per cent over the 3-year period.

● **Farm Supplies Operations.** Total sales of farm supplies dropped to \$49.7 million from \$64.7 million the year previous. Farm supplies recorded an \$18,000 profit, well down from the previous year's \$2 million.

Reflecting the current economic times for farmers, physical volume of sales were down 21 per cent for fertilizer, 11 per cent for chemicals and 29 per cent for seed treatments.

UGG's share of the fertilizer market slipped, but your company again increased its share of the herbicide market.

● **Seed Operations.** Your company's seed operations set a new sales record of \$26 million, mainly through high volumes of mustard, forage seed and pony oats. Profits were up \$1.4 million over the year previous.

The U.S. Conservation Reserve Program has had a major impact on forage seed exports. This is a continuing program with the objective of seeding 50 million acres to perennial crops. Bromegrass, crested wheatgrass, timothy and some clovers are crops used in the Conservation Program.

Creeping red fescue is still the largest export item and represented about one-fifth of all sales. Contract programs are available for peas, canaryseed, lentils and buckwheat.

● **Publishing Operations.** Total revenue from the *Country Guide*, *Cattlemen* and *Grainews* rose to \$8.5 million from \$8.2 million the year previous. This was done at the expense of their major competitors since the total agricultural advertising market dropped.

Expenses increased, however, and as a result, your publishing operations incurred a loss of \$242,000.

● **United Feeds.** Feed operations had a loss of \$16,000, compared to a loss of \$528,000 last year. Sales declined \$5 million or 13.6 per cent to \$58 million as a result of lower prices and sales volumes.

Higher margins and reduced operating expenses helped minimize the loss in this division.

● **United Beef Feeders.** The custom beef feeding operation of your company lost \$53,000 over the past year. This compares with earnings of \$51,000 the year previous. This feedlot, with a capacity of 4,000 head, had numbers below the break-even level of

1,500 for much of the year. Most Manitoba calves went to subsidized feeding programs in Alberta, Saskatchewan and Ontario.

● **Printing Operations.** Unsatisfactory results were again recorded by Public Press Printing, with a loss of \$820,000 this past year. This compares to a loss the previous year of \$571,000. Severe cost reduction measures, amounting to almost \$400,000 were outstripped by the effect of a \$1.5 million drop in sales.

The printing business is extremely competitive, requires a large investment in equipment, and is labor-intensive. With Western Canada's economy stagnant the total print market is down.

● **United Oilseed Products Ltd.** This associated company earned \$388,000 in the 1987 fiscal year compared to a loss the previous year of \$3.5 million. UGG's share of earnings, as a 50 per cent shareholder is \$194,000. Because UGG's investment in UOPL was written off the previous year, the directors of your company agreed not to record UGG's share of these earnings in the accounts for the year under review.

World supplies kept vegetable oils

and protein meal prices low, thus limiting or negating margins. However, good supplies of seed and ability to use off-grade seed allowed UOPL to turn a profit.

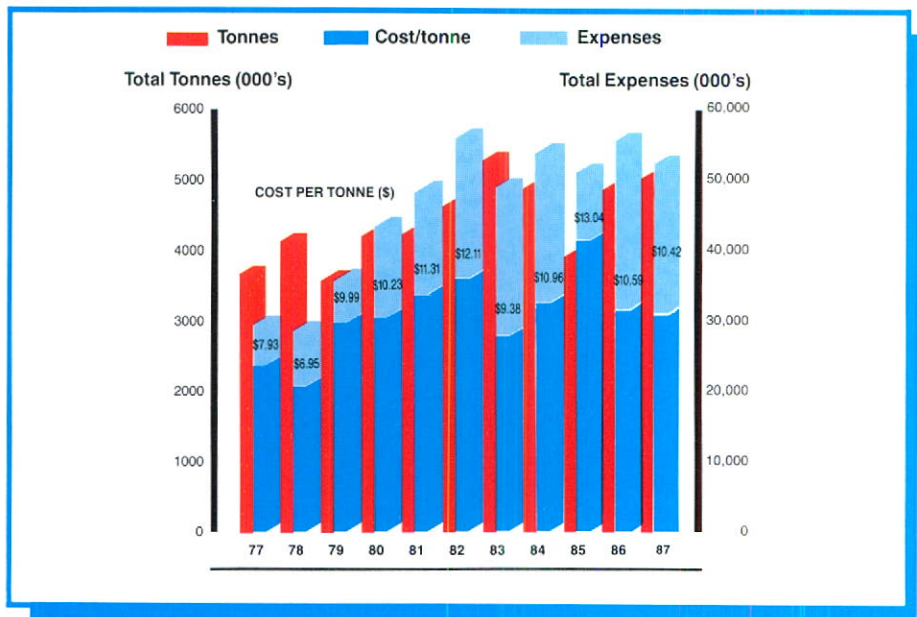
Record crush of seed and cost containment measures allowed UOPL to reduce its throughput cost by 8 per cent.

● **Prince Rupert Grain Ltd.** This associated company with a new terminal at Prince Rupert, of which your company owns 15 per cent, had cash earnings of \$21.3 million on handlings of slightly better than 4 million tonnes. After paying a shippers' return of \$7.8 million, the balance was paid to the Alberta government as payment of interest on the 11% first mortgage bonds.

UGG's share of shipments to the Prince Rupert terminal was 628,000 tonnes and the shippers' return was \$1.2 million. After deducting its \$200,000 share for demolition costs of the old terminal, UGG received \$946,000. This compares to \$295,000 the previous year.

Your company's equity in Prince Rupert Grain terminal has been further eroded because of another shortfall in

Grain handled through Country Operations, Cost per Tonne and Total Expenses



the interest due to the Alberta Government which could not be paid from cash flows. The writedown in investment value this past year amounted to \$505,000 compared to \$2,164,000 the previous year.

● **The Grain Insurance and Guarantee Company.** In order to reduce insurance costs at primary elevators, UGG searched the market and chose The Grain Insurance and Guarantee Company as insurers. To qualify for coverage, UGG was required to purchase shares in this insurance company which specializes in insuring the primary elevators of its owners.

Share dividends resulting from UGG's ownership will be reported as income as received.

The financial outlook for United Grain Growers in the current year remains challenging. Since there was a good average crop harvested in the fall of 1987, and a fairly large carryover from the previous year, there is ample opportunity for a high throughput of grain through the country system and at the terminals.

The Canadian Wheat Board is expected to exceed last year's record sales. If these sales are made, the volume of grain handled should equal or exceed last year.

However, given the depressed state of the farm economy, the grain service sector in Western Canada will continue to erode since tariffs at both country elevators and at the terminals will remain the same. This will pressure grain handling earnings and the only resort is to contain and cut costs. The current farm economy will also have an indirect effect on earnings of other service divisions such as farm supplies, feed and publishing.

Your company is determined to meet these challenges. Every effort is being made to increase revenue and to contain and reduce costs in order that all divisions of United Grain Growers will earn a satisfactory return on investment. Of primary concern is that every division continually assess and adopt strategies that meet its customers'

needs. It is only through effectively meeting these identified needs that United Grain Growers will grow and prosper.

Grain Exports

Exports of grains and oilseeds in 1986/87, including flour, totalled a record 30.6 million tonnes. This surpassed the previous record of 30.3 million tonnes established during the 1983/84 crop year.

New record highs were established for barley and canola.

Wheat exports of 18.4 million tonnes were 15 per cent greater than the previous year when 15.9 million tonnes were exported. As in previous years, the USSR was Canada's biggest customer, followed by People's Republic of China, Japan, South Korea and Cuba.

Durum wheat exports of 2 million tonnes were 41 per cent more than the 1985/86 movement. The main customers were Italy, the USSR and Algeria.

Exports of oats totalled 250,000 tonnes. The United States imported 230,000 tonnes or 92 per cent of the total.

Barley exports of 6.5 million tonnes were an 82 per cent increase from the

previous year and surpassed the record set in 1981/82 of 5.7 million tonnes. The USSR increased its imports to 2.1 million tonnes from 439,000 tonnes the year previous. Saudi Arabia increased its imports to 1.9 million tonnes, up from 899,000 the year earlier.

Rye exports declined 29 per cent to 166,000 tonnes. Japan remained the largest importer, with 84 per cent of the total rye exports.

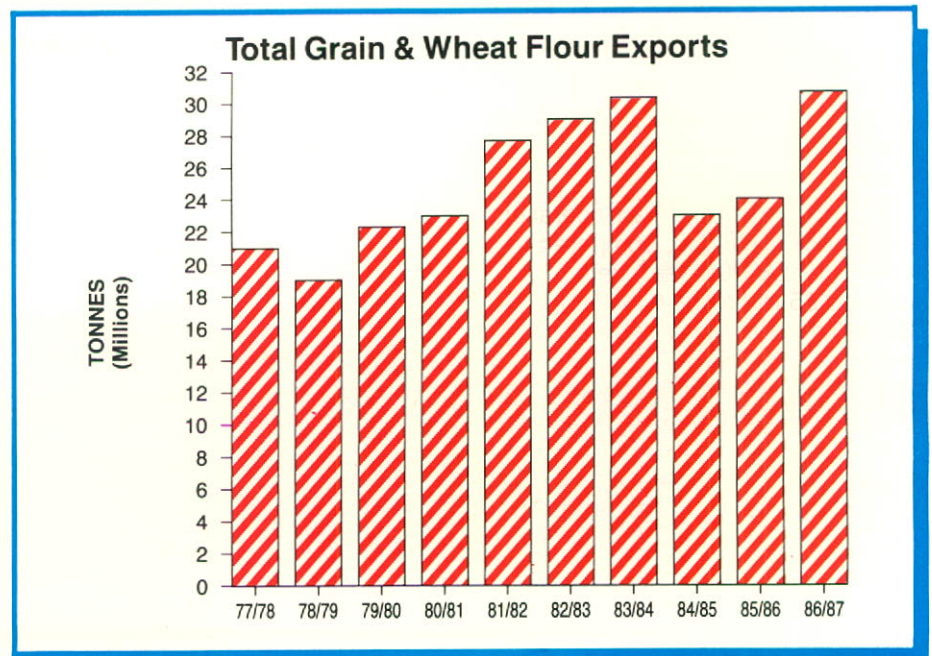
Exports of flaxseed increased 13 per cent to 660,000 tonnes. The Netherlands, with imports of 384,000 tonnes, replaced West Germany as the largest importer of Canadian flaxseed.

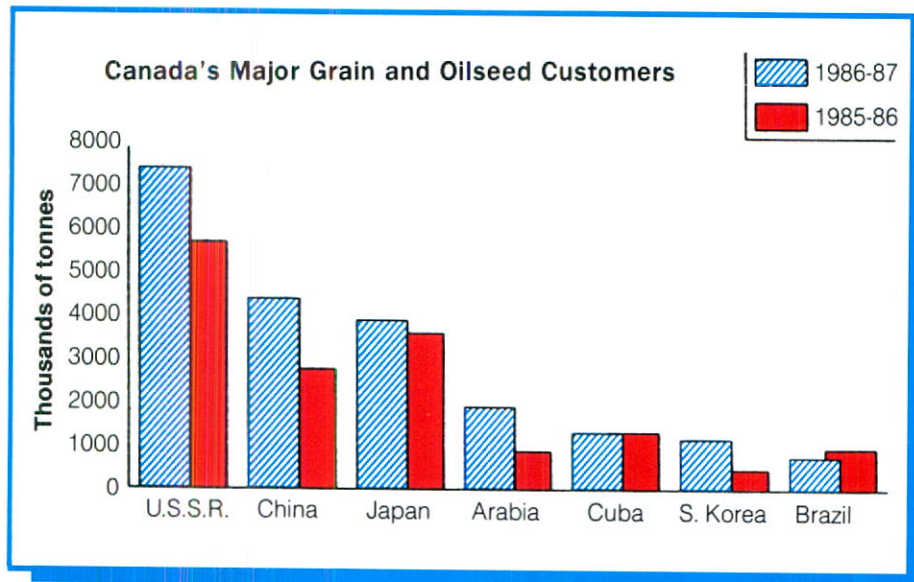
Canola exports established a record high of 2.1 million tonnes. The previous high recorded in 1979/80 was 1.7 million tonnes. Japan increased its purchases by 28 per cent to 1.7 million tonnes.

Prairie farmers financial position

In the 1986/87 crop year, grain prices fell 25 per cent across the board. Then, effective August 1, the start of this crop year, wheat and barley farmgate prices fell another 20 and 30 per cent respectively.

With the value of the crop in the bin





now worth \$1.2 billion less (23 per cent less) than the crop harvested in 1986, Prairie grain farmers face a dismal year ahead.

Delayed and low quotas cut the cash flow from grain sales to a dribble in the early fall. Most of the 1987 crop was still on the farm in late October, as farmers delivered to a three-bushel wheat quota which didn't open until well into the new crop year.

The current farmgate initial price of wheat is under \$2.60 a bushel. Income from a three-bushel quota doesn't go far when most farmers need up to \$100 an acre to pay for this year's cash operating costs alone. While they are paying off this year's costs, farmers need to prepare for next year. At current grain prices, there isn't enough money to do both.

Finding the money needed for crop inputs for the next crop will be the big challenge for many grain farmers. While net farm income for the 1987 calendar year is forecast at \$2.3 billion, basically all the money will be spoken for before the end of this year.

Inflation has devastated Prairie farmers' purchasing power to the point where an individual farmer needs \$4 in 1987 to pay for what \$1 would have bought in 1971. On an industry-wide basis, pressure on farmers' cash flow is as bad as it's ever been as farmers juggle income and expenses, and delay

making purchases to keep up with loan payments.

Many farmers have resorted to "consuming" depreciation, a dangerous management strategy. That's the annual cost of owning equipment — about \$1.6 billion a year. Normally, that money is used to replace and update farm machinery. Now financially-strapped farmers are using that money to pay for crop inputs, living costs and principal payments.

Those principal payments have escalated through a series of events. Production costs rose faster than crop prices during the late 1970's. As shown in Table 1, farmers needed 54 cents out of each dollar of realized gross income to pay for operating and depreciation costs in 1975. By 1987, they needed 77 cents out of each dollar of income to pay for those costs.

Farm debt more than doubled from 1977 to 1985, and has declined only about 5 per cent since then. As debts rose, principal payments, which must be paid out of after-tax dollars, started to devour a larger and larger share of leveraged farmers' net income. In 1977, principal payments paid by Prairie farmers on farm debt totalled roughly \$0.5 billion, or 36 per cent of the \$1.4 billion of net farm income reported that year.

In 1987, Prairie farmers will need to pay off about \$1 billion of principal. That equals about 43 per cent of the \$2.3 billion of net farm income reported this year.

If low grain prices persist, cash flow for many Prairie farmers will be choked off. As finances look now, many farmers won't have enough cash flow from grain sales to meet their obligations in 1988.

Table 1 — The relationship of Prairie farmers' production costs to realized gross farm income

Year	Realized gross farm income (1) (\$ thousands)	Operating and depreciation expenses (2) (\$ thousands)	Operating and depreciation costs as a % of gross farm income
1969	1,886,355	1,372,213	72
1971	2,101,506	1,440,733	68
1973	3,391,399	1,941,483	57
1975	5,333,572	2,894,020	54 Low point
1977	5,037,683	3,609,125	71
1979	7,253,541	5,260,120	72
1981	9,611,984	7,094,230	73
1982	9,544,200	7,734,300	81
1983	9,558,000	7,982,925	83
1984	10,363,000	8,299,755	80
1985	10,001,593	8,373,929	84 High point
1986	10,063,244	8,101,138	80
1987 (Est.)	10,165,800	7,846,300	77

Table 2 — Key debt and income indicators in Canadian Agriculture

	Net Farm Income (\$ Billion)	Deflated Value 1971 \$ (\$ Billion)	Value of Farm Assets (\$ Billion)	Farm Debt (\$ Billion)	Net Income as % of Asset Value	Debt to Asset Ratio	Debt to Income Ratio
1977	2.43	.61	65	10.6	3.7	.16	4.36
1978	3.05	.76	77	12.1	4.0	.16	3.96
1979	3.53	.88	95	14.6	3.7	.15	4.14
1980	3.32	.83	117	16.6	2.8	.14	5.00
1981	3.88	.97	130	18.4	3.0	.14	4.74
1982	3.48	.87	132	19.8	2.6	.15	5.69
1983	3.26	.82	127	20.8	2.6	.16	6.38
1984	4.25	1.06	123	21.6	3.4	.18	5.08
1985	3.89	.97	115	22.1	3.4	.19	5.68
1986*	4.65	1.16	110	21.1	4.2	.19	4.53
1987**	5.56	1.39	107	20.7	5.2	.19	3.70

*Preliminary **Estimated

That's why the directors of your company have appealed to governments for interim financial assistance to bridge the shortfall in cash flow expected in 1988.

Net income forecast for 1987 on the Prairies belies the true financial picture of Prairie farmers.

Early estimates by United Grain Growers and Agriculture Canada place farm cash receipts on the Prairies for 1987 at \$10.2 billion (Table 1). Net income is \$2.3 billion up \$0.4 billion from 1986.

The increase in net income from 1986 to 1987 was due to several factors. Higher payouts from farm income programs more than offset the lower income from grain, even though there were record exports.

Income from hogs was up, as farmers sold more hogs at strong prices.

Cattle prices were strong during most of the year, but income from cattle does not reflect the higher prices. There was a decrease in the number of cattle slaughtered. Some cattlemen held back breeding stock and feeders were retained on the Prairies, and not sold to the U.S. or Eastern buyers in as large a number as in past years. As a result, total income from cattle in 1987 was about the same as in 1986.

Two farm income programs offset the drop in income for crops. The Special Canadian Grains Program paid \$0.8

billion to Prairie farmers in 1987. The Western Grain Stabilization Plan payout is estimated to be over \$1 billion in 1987.

Total income from the two programs, plus crop receipts is \$6.4 billion. Therefore, 25 per cent of the realized gross farm income received by grain farmers came from these two farm income programs.

Production Costs. Tight cash flows due to low grain prices forced Prairie farmers to swing to survival strategies. Some farmers cut back on inputs, some summerfallowed more land, and others did both.

Canadian farmers summerfallowed 800,000 more acres of land in 1987 than in 1986. They used 10 per cent less fertilizer in 1987, compared to 1986. Herbicide use was also down an estimated 10 per cent.

Lack of money also forced farmers to cut back on machinery purchases. For example, four-wheel drive tractor sales are down 53 per cent, self-propelled combine sales are off 59 per cent, and pull-type combine sales are down 56 per cent from 1980 sales figures.

While these cutbacks will help farmers survive, delaying the replacement of farm equipment has serious long-term implications.

Obviously, farm machinery is getting older. Farm equipment in the 1970's averaged four years in age. Now, that average is seven to eight years.

Worst of all is the accumulated buildup of the cost of replacing equipment. Each year farmers use depreciation for cash flow instead of reinvesting it back into machinery, overall growth gets set back. Likewise, each year that tough times last it extends the recovery time of individual farmers. Some farmers will never recover.

Financial Pressures. As shown in Table 1, financial pressure on Prairie farmers has been building. Calculating farm production costs as a percentage of realized gross farm income shows how that pressure has squeezed farmers financially.

In 1969, a tough year by most farmers' standards, a farmer spent 72 cents from every dollar of farm income to pay for farm production costs. Those costs include interest, depreciation, fuel, fertilizer and so on, but not living costs or payment of principal on farm debt.

Then farm profits improved for a few years. By 1975, farmers spent only 54 cents out of each dollar of income to pay those same production costs.

But in 1982, as costs rose faster than income, the relationship between costs and income changed for the worse. In 1985, Prairie farmers spent 84 cents out of every dollar of revenue just to pay for production costs.

In 1986, and again in 1987, farm income programs relieved some of that pressure on farmers. In 1986, farmers

spent 80 cents out of each dollar of income for operating costs, and 77 cents in 1987.

Purchasing Power. Since 1971, net farm income on the Prairies has seen-sawed between \$0.66 billion and \$2.5 billion a year. It's been over the \$2 billion mark only four times since 1971: 1987, \$2.3 billion (estimated); 1981, \$2.5 billion; 1975, \$2.4 billion and 1974, \$2.2 billion.

But the Consumer Price Index (CPI) has also been rising steadily every year. In 1987, the CPI is 330 using 1971 as the base year. So what a farmer can buy for \$1 today would have cost him 24 cents in 1971. In terms of spending, \$2.3 billion in 1987 is equivalent to \$0.6 billion in 1971.

Farm Debt Maturing. As shown in Table 2, farm debt in Canada in 1986 was \$21.1 billion, down from the peak of \$22.1 billion in 1985. Debt is expected to fall another two to four per cent in 1987.

Prairie farmers generally have about half the Canadian farm debt, which means farm debt on the Prairies was about \$10.5 billion in 1986, little changed from \$11 billion in 1985.

In spite of a small decline in farm debt, financial pressure on Prairie farmers has not eased. In financial jargon, farm debt is maturing.

When a farmer borrows money over a fixed number of years, most of the payment for the first few years is interest and a small part in principal. That interest cost shows up in farm expense calculations, and is relatively easy to record.

With each payment, the interest share of the payment gets lower, while more and more of the payment goes to pay off principal.

As shown in Table 2, total farm debt in Canada was \$10.6 billion in 1977. By 1985, farm debt had jumped almost 210 per cent to \$22.1 billion.

In 1985, the latest year for which statistics are available, long-term and short-term credit loaned out during the year dropped. Intermediate term credit rose from \$2.3 billion to \$3.3 billion, due to provincial lending programs. These were generally emergency loans designed to consolidate arrears and short-

term credit, and ease financial pressure for farmers' cash flows. In 1985, 80 per cent of farm debt had been borrowed for terms of 18 months to over 10 years, and farmers are still making payments on these loans this year.

All farmers are not keeping up with their payments. The Federal Farm Credit Corporation has loaned out about \$4.5 billion of the \$11.4 billion on long-term credit to Canadian farmers. The corporation reports that 80 per cent of its loans are up-to-date. While a good share of the arrears will be paid off if governments provide adequate funds and farmers sell inventory, it's important to note some farmers are two years behind in their payments.

In Canada, net farm income has been propped up by various farm income programs. Despite this, land prices on a national scale have fallen 22 to 25 per cent, and land prices fell more than that in many parts of the Prairies.

But farm debt, the last critical step in a recovery, has not dropped significantly. When interest rates were at record highs, farmers' principal and interest commitments were \$3.8 billion. In 1987, interest rates were down significantly from their peak, but the principal and interest payment on farm debt is still estimated to be \$3.7 billion.

Farmers are paying less interest, but the pressure on their cash flow is steady because principal payments are increasing year by year. That pressure will stay for another two, three or five years, until intermediate-term loans borrowed in the late 1970's have been paid off, presuming farmers have the cash flow to make those payments.

Looking Ahead. The question the farming industry and governments must address is one related to the fundamental financial structure of individual farmers.

Productivity statistics confirm the farming industry is in the doldrums. In the 1950's and 1960's, productivity improved steadily. During the 1970's productivity improved slightly, but at a slower pace than during the two previous decades. In the 1980's, productivity has been flat.

Canadian farmers are in the cost price squeeze, unable to take full advantage of modern technology in order to improve productivity. As long as farmers are unable to afford new investment in farm production assets and continue to consume the depreciation expense to increase cash flow, they are rendering themselves uncompetitive in the world marketplace.

To survive Prairie farmers need to regain that competitive position. If income can't increase to where debt is serviceable, debt will need to be settled so it comes down to a serviceable level.

Farm Policy

The board of directors of United Grain Growers continued to work toward improving the farm policy process during the past year. In addition to ongoing lobbying efforts regarding farm finance, crop insurance, plant breeders rights, research funding and soil conservation, the board submitted major position papers to government on several issues impacting upon Western Canadian farmers.

Lower Rates. In January 1987, United Grain Growers supported Canadian National Railways' application to the Canadian Transport Commission (CTC) to authorize lower rail freight rates at selected elevator locations. Ultimately the CTC authorized a \$1.50 per tonne rate reduction at 16 UGG points capable of loading 18 rail cars in a designated period.

UGG is continually looking for the opportunity to directly reduce the farmer's cost of handling and shipping grain, and applauds CN Rail's initiative.

However, this \$1.50 per tonne pales in significance when compared to potential long-term benefits. The real costs of shipping grain will only be recognized when farmers are paid the Crow Benefit directly.

Putting the Crow Benefit in the farmer's pocket gives the individual the opportunity to choose where and how he wants to market his grain.

By allowing the real costs to be seen by farmers, the grain transportation sys-

Crow Benefit The Advantages of 'Pay the Farmer'

- Putting the money in the farmer's pocket, gives the individual producer the freedom to choose the grain market he wants. He doesn't need to load a rail car to get the benefit. It stops the discrimination against value-added production and processing in Western Canada by making the value of Western grain the same, whether exported or used in Western Canada. Livestock production, special crop production, and any related secondary industry will not be disadvantaged by an export subsidy.

- Promotes a least-cost system by letting the true costs of the system to become visible to the users (rail freight compared to truck; rail and truck compared to seaway; elevator and port terminal configurations; that provide the best return to the farmer). It will rationalize the grain transportation system based on the desires of Western Canadian farmers, not the railways and the elevator companies (rationalization is inevitable even with pay the railways).

- Removes the Crow Benefit as an export subsidy and reduces the opportunity for retaliation by countries such as the U.S., to export subsidies.

- Provides security because the federal government would have more difficulty removing a subsidy from 150,000 farmers than from two railways, and it still remains statutory.

- Independent studies have recommended pay the farmer as the best solution for Western Canada (Gilson, Hall, Horner).

tem will be rationalized according to the desires of Western Canadian farmers — not the railways or the grain companies. Rationalization is inevitable, regardless of how the payment is made.

The Special Grains Program.

Throughout the continuing barrage of price and income problems facing Western Canadian grain farmers, United Grain Growers has lobbied hard for federal income assistance to farmers. This assistance should not be viewed as a handout, but as a "hand up" to help grain farmers and Prairie agriculture to survive until sanity returns to the international marketplace.

United Grain Growers joined with other farm groups to ensure the federal government distributed the first Special Grains Payment as equitably as possible. The board of directors has since suggested improvements to the payout mechanism and has made recommendations as to the appropriate size of a second income deficiency payment for 1987.

Bilateral and Multilateral Trade.

While government support is essential if Canadian farmers are to survive the current trade war, it is only through multilateral negotiations that the problems of subsidies and resulting oversupply can be resolved. Only when the farmers of Europe and the United States return to farming for the market, rather than farming for the government, can Prairie farmers assert their natural competitive advantage.

The board of directors of United Grain Growers continue to believe Canada must take a proactive and assertive role in resolving trade conflict. Freer access to markets — all markets — should be the goal of Canadian farmers in trade negotiations.

United Grain Growers has supported and continues to support the elements of a freer trade deal with the United States — having made a statement to that effect in concert with the Canadian Agricultural Policy Alliance. Your company has also helped Canada's trade team in understanding the major issues affecting agriculture, through representation on the Sectoral Advisory Group on International Trade (SAGIT).

Until such time as free and open competition returns to the international trade arena, United Grain Growers will continue to pressure the federal govern-

ment to support the incomes of Western Canadian farmers.

Farm Input Costs. At a time when grain farmers have seen their real income (inflation adjusted) from the marketplace fall to all-time lows, it is crucial that the cost of doing business be kept to a minimum.

United Grain Growers attempts to do its part by holding the line on elevator tariffs, applying for lower freight rates, and generally providing a competitive force in many of the industries that serve farmers. While government policies and actions are often beyond the control of farmers, these policies can be influenced through sound, consistent positions presented by your company to key decision makers.

In March, 1987, UGG's board of directors presented a brief to the Standing Parliamentary Committee on Agriculture with respect to farm input costs. This brief provided many suggestions for ensuring that the costs of farmer-purchased inputs remained as low as possible. These included fair chemical patenting and registration laws, continued tax rebates for farm fuels, free movement of fertilizer and farm equipment across the United States border, limited labour disruptions in industries that move farmers' commodities to market, and stimulating investment in research and development.

Farm Taxation. In September, 1987, United Grain Growers testified before the Standing Parliamentary Committee on Finance and Economic Affairs regarding the proposed tax changes contained in the White Paper entitled "Opportunity for Reform."

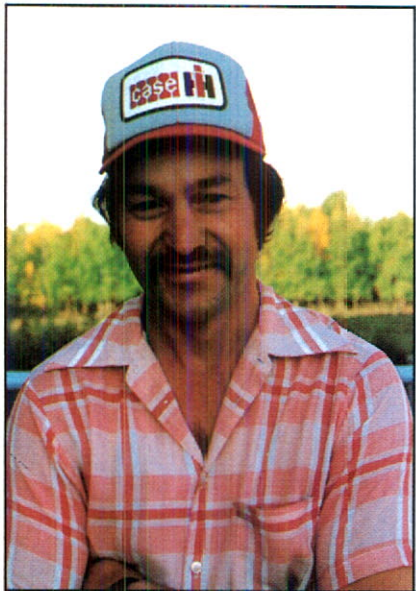
While the board of directors of United Grain Growers supports the principles of tax reform, the recommendations contained in the White Paper relating to agriculture do not appear to make the tax system fairer or simpler for farmers. It is hoped the arguments presented by United Grain Growers will help persuade the federal government to take a second look at proposed changes respecting income averaging, "modified" accrual accounting, capital cost allowance, and provisions for beginning farmers.

Throughout United Grain Growers' continuing dialogue with government, the principle remains the same: Keep the farmer's costs in check so he can compete in international markets. After all, it makes little sense to support farm income, if other government actions erode this support by raising the cost of doing business.

Conclusion

This 81st reports shows, despite its financial downturn last year, United Grain Growers is strong in financial resources and assets. Your company will continue to grow as long as it meets farmers' needs, and last year's near-record grain handlings attest to this.

The directors wish to acknowledge the source of United Grain Growers' strength: The farm people who own the company, the customers who use its services and the people who work in its elevators, feed plants and offices. Special recognition is due those elevator managers who put forth that extra effort in a difficult year to move near-record amounts of grain through your elevators.



Due to the amount of damp and tough grain in the Peace River area, a continuous-flow dryer was added to the Hines Creek, Alta. elevator. Inset: Local board Secretary Glen Hoover.

The directors wish to pay tribute to the work of members and directors of UGG locals. They kept a watchful eye over local business conditions and advised the directors and management of their first-hand impressions.

Earlier in this report the present income plight of grain farmers was discussed. The painful process of adjusting to the financial devastation of the 1980's remains. Even now, after five deeply troubled years, grain prices appear to have just bottomed out.

Estimates of world production, ending stocks and trade vary by source, but all indicate a similar trend: Production and stocks will decline and trade will pick up. The International Wheat Council, for example, in October estimated world wheat output in 1987/88 would decline by 5 per cent, stocks would fall by 11 per cent and trade would increase by 10 per cent. Coarse grains figures were similar.

Even though grain prices are low, it is expected total Canadian grain exports this crop year will exceed last year's record 30.6 million tonnes. It is crucial Canada retains its customers, even against subsidized sales of competitors.

Most analysts are reluctant optimists. The prevalent view is it will take three to five years before we see enough of an upturn to return to 1985/86 prices. One characterized it as being at the bottom of a flat-bottomed bowl: It's a long way to the lip on the other side.

Continued improvement in the farm sector depends on a combination of good yields, low production costs, low interest rates, big exports and strong federal supports. Without these the survival and prosperity of many individual farmers will turn into an even greater problem. The sheer size of government payments make them a core component of the outlook for farm income.

Last year the directors of your company recommended an income deficiency payment to Canadian farmers as a "bridge" until better grain prices return. The federal government responded with a \$1 billion payout. Now

major farm groups in the West have proposed a \$2.6 billion income deficiency payment and hope the federal government will again react favorably.

Worldwide subsidies on grain production artificially enhanced increasing outputs of grain, and current multi-lateral GATT negotiations to reduce those surpluses are underway. It will be a slow process, however. Look at the painfully slow progress of Canadian-U.S. negotiations to strike a draft of a free trade proposal, then visualize the difficulties of a multi-lateral agreement to cut subsidies and, as a result, production.

In this matter, the directors of United Grain Growers fully back the free trade proposals. Canada is a trading nation and there is a tide of protectionism in the world that must be stopped. The Canadian-U.S. proposals, if agreed upon, set a wonderful example. Western Canadian farmers can only benefit with access to an enormous nearby export market for our quality commodities: red spring wheat, durum wheat, malting barley, oats, canola, flaxseed, beef and pork.

Because of our grading systems, we can offer U.S. buyers the product they specify — something U.S. farmers cannot do. Of course, some changes will have to be made. The Crow Benefit grain subsidy will have to be converted to an income subsidy — pay the farmer the Crow Benefit. Two-price wheat will have to be traded off, and so will any subsidies that artificially enhance the production of a commodity. Future subsidies must be paid directly as income deficiency payments rather than subsidies on commodities. In a trading world where quality ranks more important than quantity, Prairie farmers face a good future.

It is clear from the foregoing that Prairie agriculture is in deep trouble. So much so, there is no doubt less acreage of grain will be seeded in 1988. It means we could lose markets the Canadian Wheat Board has won simply because we haven't enough high quality grain to meet market demands. Canada's competitors will supply it.

Last year the directors of your company in the annual report requested the federal government to support farmers'

incomes as a "bridge" to better times — such as 1990. The directors asked: "The question again poses itself: Do Canadians want to afford to help farmers? Do they want to give them a hand up over the next four years to avert the suffering of thousands of displaced farmers and of the tens of thousands who simply can't produce cheaply enough at current commodity prices?"

UGG again requests the federal government to support incomes enough that land won't lie fallow, weeds grow unchecked or crops don't do as well because they're short of fertilizer. A sum of \$2.6 billion in 1988 paid through the Special Canadian Grains Program would avoid the farm recession that otherwise is sure to come.

Lorne Hehn,
President



Public Press prints everything from travel brochures, magazines to posters.

Operations Review

Country and Grain Marketing Operations

The principal business of United Grain Growers is the handling, merchandising and storage of grain in Western Canada.*

Country elevators

This past year, United Grain Growers operated a total of 309 primary country elevators; 70 points in Manitoba, 124 in Saskatchewan and 115 in Alberta/B.C. The storage capacity of your primary elevator system, as licensed by the Canadian Grain Commission, is 254,210 tonnes in Manitoba, 504,020 tonnes in Saskatchewan and 498,210 tonnes in Alberta/B.C., for a total of 1.3 million tonnes.

The country operations division is responsible for developing and operating a primary elevator system. The division operates under the board of directors' policy to maintain standards of good service at the least cost. In order to respond to the increasingly diverse and sophisticated marketplace, management has the responsibility for establishing a well-defined planning strategy. To help in charting a path in this rapidly changing business, country operations relies on the board of directors' 1987 plan to formulate its operating objectives. In May of each year, plans are finalized for the division's short- and long-term objectives. Formulating these plans relies heavily on general business indicators and past operating experience. The actions should provide the basis for a more flexible system able to provide customers with the services and products needed to operate their business.

*Elevators perform an essential function in the movement of grain. In a sense, they are a public utility and have been so recognized in the statutory declaration that Canadian elevators are "works for the general advantage of Canada."

Country elevators are premises where United Grain Growers acts as agent for The Canadian Wheat Board, and pays the initial price for wheat, oats and barley to be sold by the Board. These elevators are also merchandising premises where your company buys and sells canola, flax, rye, certain special crops grown under contract, and keeps a stock for domestic trade. At its terminal elevators, United Grain Growers also owns some grain and screenings in its capacity as a merchant.

Handlings in the 1986/87 crop year for UGG reached 5.0 million tonnes, up from the previous year by .17 million tonnes.

Grain deliveries by area to UGG in this past fiscal year were Eastern 1.67 million tonnes, Central 1.76 and Western 1.60. Total tonnage handled was the second highest on record for your company (Table 4).

The grain movement in 1986/87 got off to a shaky start when the Thunder Bay grain workers went on strike September 4, 1986, after a conciliator's report failed to bring the two sides together.

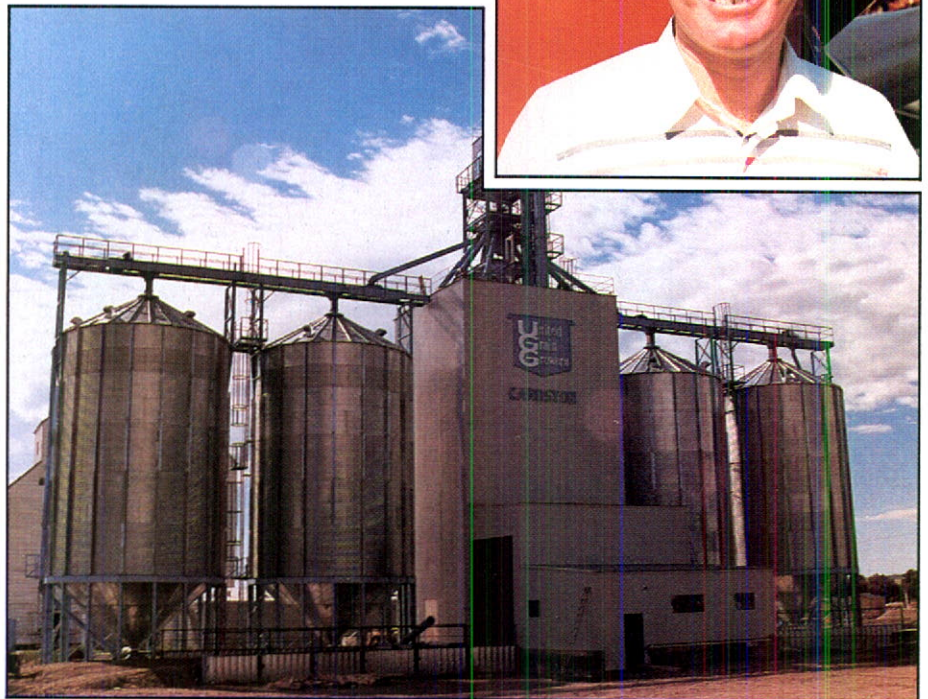
Vancouver longshoremen were locked out on October 6, 1986 in a labour dispute. The B.C. Maritime Employers Association exempted grain loaders from the lock-out and boats were loaded again on October 8, the same day that Thunder Bay grain workers were back on the job.

Overall grain movement picked up greatly in November and December. Heavy shipments of barley and high quality wheat were experienced. Lower grades, particularly No. 3 CWRS, were

slow moving and required special attention. West Coast movements remained strong through the winter and spring months, allowing Vancouver and Prince Rupert to set record paces in most months. A direct rail movement program from Thunder Bay to Eastern open water ports moved 910,190 tonnes during the winter. This offered some relief to stations that experience congestion when Thunder Bay closed for the winter months.

In March, the Canadian Wheat Board announced a special program designed to take advantage of a specific market opportunity. About 1,000 producers qualified to deliver 14.5 per cent protein CWRS wheat under this special program.

Some 19,000 producers applied for and received permission to deliver 2.2



Cardston, Alta. new elevator. Inset: Local Board Chairman Brian Olsen.

million tonnes of barley and 700 producers qualified to deliver 45,000 tonnes of oats in the Canadian Wheat Board contracting program. The heavy demand for barley led to a second contract call on March 6.

Earnings this past fiscal year were reinvested into the country elevator system. Capital expenditures for the period totalled \$7.1 million (Table 3). Of this, \$2.9 million was invested in new elevator construction and \$1.6 million was spent on major renovations to existing facilities, new annexes and steel bin storage. Other expenditures involved \$0.25 million on scales, driveways and dust collection equipment, and \$0.4 million on improving rail spurs and purchasing land for future projects. In total, \$5.3 million was spent on improvements in the elevator system. Farm supply capital expenditures totalled \$0.8 million.

Capital construction. In order to provide good service, your company is committed to developing facilities that meet local needs. The construction of two all-steel facilities underlines this commitment. An elevator at Cardston, Alta. has been built entirely of steel components, another is underway at Dinsmore, Sask., reducing the risk of fire losses at those locations. While the cost of construction is comparable to wood cribbing, the speed of assembly and ease of storage capacity expansion are desirable.

Modernizing elevator operations is an ongoing commitment. A high level of awareness of new technologies is necessary since this field makes tremendous advances in relatively short time frames. Changes are incorporated when a cost/benefit analysis indicates it is worthy of investment.

Computerization. A total of 244 elevators were computerized by the end of this past fiscal year. Preparations are being made to install computers at 30 more stations in the fall of 1987.

Advanced computer technologies have permitted UGG to upgrade older model computers at a fraction of the cost of replacing them with newer mod-

els. This represents a large saving in capital outlays for new machines, as well as the costs associated with installing new computers. These developments permit the expansion of programs available to elevator managers.

Elevator construction. This past year new elevators were built at Langenburg, Sask. and Cardston, Alta.

Renovations to facilities were undertaken at Westlock, Alta., Richlea and Glenside, Sask., and at Reston and Neepawa, Man. An annex was moved to Mundare, Alta., and steel bin storage replaced a cribbed annex at Plumas, Man. A large-scale paint and residing program was started in 1986/87. Residing was done at Portage la Prairie, Plumas and Neepawa in Manitoba, at Battleford, Biggar and Herschel, Sask., and at Bow Island and Penhold, Alta. Paint jobs were completed at Killarney, Minnedosa, Rignold and Nesbitt, Man., Coronation, Foremost, Westlock, Barrhead, Bentley and Turin, Alta., and at Harris, Swift Current, Nipawin, Hanley, Balcarres and Watson, Sask.

Second track loading devices and track extensions are in progress at Carrot River, Elrose, Eston, Hague, Lucky Lake, Marengo, Whitewood, Landis and Melfort in Saskatchewan; Bow Island, Grassy Lake, Lomond, Trochu and Vegreville in Alberta and Dawson Creek, B.C. and Rathwell, Plum Coulee, Morden and Deloraine in Manitoba.

Closures & trades. Elevators at Neudorf, Sask., and Alliance, Standard and Willingdon, Alta., were traded for Pioneer Grain facilities at Cupar, Glenside and Hyas, Sask. and at Viking, Alta.

Elevators at Rycroft, Alta. and Aberdeen, Sask., were traded for Cargill elevators at Holden and Spirit River, Alta., Davidson and Watson, Sask., and at Ashville, Man.

The elevator at Mossleigh, Alta. was traded for Parrish and Heimbecker facilities at Warner, Alta.

Elevators at Nemiskam, Alta. and at Churchbridge and Snipe Lake, Sask. were closed in 1986/87. Country operations ceased its activities at Lethbridge



Richlea, Sask. renovated elevator. Inset: Local Board Chairman George Krenz.

and Wetaskiwin, Alta. Wetaskiwin continues to be operated as a United Feeds plant.

Dwellings. Your company has 350 houses in its system. Dwellings were purchased at Grandview, Man. and Elk Point, Alta. this past year.

Grain Marketing Operations

The grain marketing operation of your company sells open market feed grains, rye, oilseeds and Canadian Wheat Board malting barley generated by the country elevator system. It also sells by-products from your terminal elevators.

The grain marketing options announced in last year's annual report have earned an encouraging degree of acceptance by farmer-customers. Response to many of the options has been good. It is not difficult, in these tough times, to understand farmers need to maximize returns on every bushel they sell.

Offering these marketing options to farmers, together with an aggressive sales thrust, has resulted in substantial handling gains in most grains. Only rye handlings declined from the year previous.

Reasonable margins were recorded on non-Board wheat, oats, barley and canola, but much lower margins were the case for both flax and rye. The flax problem stemmed from too much supply chasing too little demand. Strong competition resulted and, in order to make sales, only very small margins were available. Rye margins, while faring better than flax, were also low. Almost all the rye handled was of feed quality. Keen competition in this market kept margins down.

**Table 3 — 1987 Fiscal Year
Capital Expenditures**

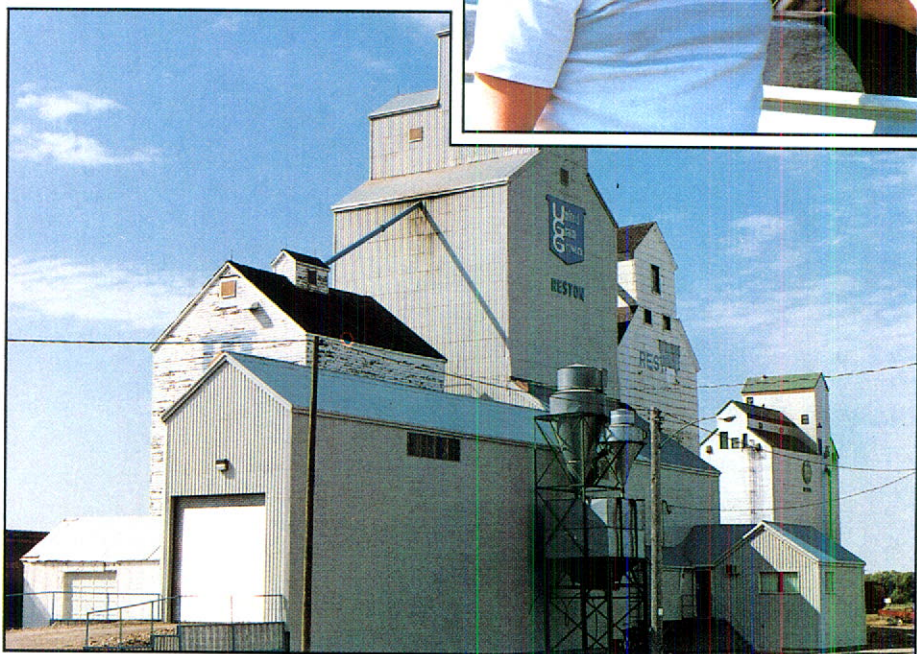
New elevators	\$2,958,981
Annexes & bins	165,908
Renovations	1,494,383
Scales & driveways	237,602
Dwellings	91,321
Land & trackage	452,092
Farm supplies	745,936
Other	958,227
Total	\$7,101,450

Table 4 — 1986/87 Record of Country Grain Deliveries to UGG

Month	Receipts for Month	Monthly % of Total
August	40,686	.83
September	167,816	3.35
October	445,210	8.83
November	468,029	9.28
December	681,425	12.52
January	386,651	7.67
February	304,316	6.03
March	254,306	5.04
April	564,029	11.18
May	354,984	7.04
June	760,211	15.08
July	662,876	13.15
Total	5,040,539	100

Due to poor harvest conditions, generally, in Eastern Canada and the countervailing duty placed on U.S. corn imports, the volumes of Western feed grains sold to Eastern Canada increased substantially over the previous year. UGG's sales volume increased accordingly. In Western Canada a major increase in direct off-farm sales in feed grains occurred. With UGG's on-farm purchase contract in effect, your company was able to participate more effectively.

In Canada, as in many other pro-



The Reston, Man. elevator had a major renovation. Inset: Local Board Chairman Bill Harris.

ducing countries, there continues to be a larger-than-normal production of feed grades of wheat and barley. As a result, the U.S. export enhancement program and the EEC Export Rebates are expected to continue for some time. Under these circumstances it is difficult to see any major improvement in prices. The job of the Canadian Wheat Board in competing for export sales of commodities will continue to be difficult in the year ahead. However, drought conditions in Asia and parts of India, and other problems in Europe, are all pointing to an increase in world trade.

While the export subsidy programs referred to earlier are expected to continue, they are, nevertheless, extremely

expensive and there is a growing political will in Europe and the U.S. to curb them. There is also a growing body of opinion that maybe the worst is over and that prices will rise.

Domestically, United Grain Growers anticipates the demand for feed grains to be about the same as the previous year and prices will likely remain relatively flat. There may be some improvement in the latter months of the crop year.

The carryout position on oilseeds at the end of the 1987 crop year was considerably less than previously forecast. This was due to a big increase in export sales and, in the case of canola, a substantial increase over forecast figures in the domestic crush.

The outlook for the current year is for flaxseed demand to generally approximate that of 1986/87. Total starting supplies are about the same and export sales are being forecast at the same level as last year. In view of this, the market is expected to remain generally flat.

In the case of canola, the starting stocks are about 500,000 tonnes less than last year, and total usage is esti-

mated to be down 250,000 tonnes. Under these circumstances it would be reasonable to expect some firming of prices as the season progresses. However, competition from other oils could be a restraining factor.

A large export market has developed for feed peas. Production in Western Canada increased dramatically in 1987. The primary demand is from Europe and UGG has participated in that market from the outset. It is hoped that the market will become well established and ongoing, but the relative economics of production and certainty of demand from overseas buyers are still matters for assessment.

Other special crops are now being examined and UGG's marketing operations will become much more active in these areas in the current fiscal year.

Grain marketing options

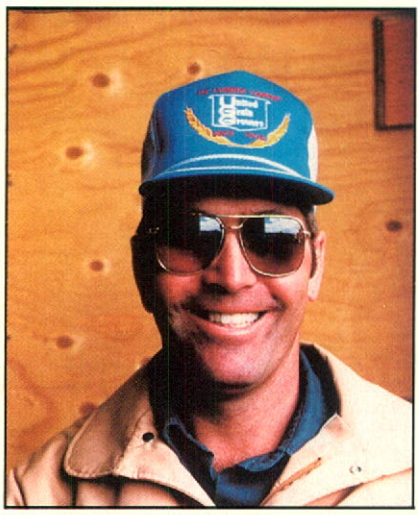
During the year, a number of grain marketing options were introduced to farmers. They responded and improved their returns on grain sold through your company's grain marketing operations. Others used some of the options to purchase truckloads of feed grain, saving not only money but also time spent on arranging trucks and scouring the countryside looking for quality feed grains.

Your company introduced seven grain marketing options. Farmers took advantage of most of them. These options include:

1. Deferred Delivery Contract. A farmer avoids speculation by forward-pricing a certain amount of his grains or oilseeds. He contracts to an agreed-upon price with delivery at a fixed date in the future.

2. Deferred Pricing Contract. A farmer delivers his grain and contracts to defer the pricing of the grain for up to 90 days. He speculates with both the futures price and basis change.

3. Deferred Basis Pricing. A farmer delivers his grain, agrees on a basis price but defers the final price for his grain. The farmer fixes the basis, but speculates with changes in the futures price.



Langenburg, Sask. new elevator. Inset: Local Board Chairman Wayne Hertlein.

4. On-Farm Purchase Contract. A farmer contracts to sell off-quota or on-quota at a certain price to be picked up during a certain period.

5. Consigned Car Shipments. UGG arranges car loading through elevators of special-binned malting barley, over-quota oats or non-Board grains, with customer shipping the carlot on his own account. Price and terms of sale are contracted before carlot is shipped.

6. Producer Car. A farmer with sufficient grain, and the quota for a carlot, applies for and receives a permit from the Canadian Grain Commission to ship a producer car. The farmer arranges car loading. UGG sells the grain, and documentation and freight settlement can be handled by the customer or UGG.

7. Hedging. A farmer forward-prices his grain by hedging on the futures market rather than through a Deferred Delivery Contract. The farmer agrees UGG will act as a broker by signing a Commodity Futures Contract.

Farm supplies operations

Continued low grain and oilseed prices caused Prairie farmers to apply less fertilizer and crop protection products. The reduced volume, combined with lower selling prices, were the major factors that resulted in a 23 per cent reduction in sales of your farm supplies operations.

Fertilizer. Fertilizer prices declined

in the fall of 1986. Manitoba farmers responded by applying an increased tonnage of anhydrous ammonia. However, by spring, even though prices increased only moderately, expected sales did not materialize. Consequently, fertilizer sales for the year were down 12 per cent in Manitoba, 22 per cent in Saskatchewan and 28 per cent in Alberta.

During the year, United Grain Growers built new bulk blending plants at Codette and Langenburg, Sask. and Hines Creek, Alta. In addition, bulk fertilizer storage was expanded at seven other locations by installation of hoppers and steel bins.

A new cost-efficient fertilizer (19-3-0-22), where phosphate is not a requirement, was introduced. It's designed for blending with other granular fertilizers where sulphur is needed. The sulphur is in the sulphate form which is more readily available to crops than sulphur in the elemental form.

The poor fertilizer markets in the last crop year have had a major effect on fertilizer production. As a result, some fertilizer manufacturing plants have been taken out of production. These plants operated by Cominco and Western Co-op Fertilizer Limited, produced about 800,000 tonnes per year.

Crop Protection Products. In Manitoba, sales increased for all weed control herbicides, however in Saskatchewan and Alberta sales were down. This

resulted in an overall drop in sales of 11 per cent during the 1986-87 crop year.

The dry conditions during and after seeding throughout most of Alberta and Saskatchewan prevented weed germination and growth. Consequently, the normal amount of spraying, especially for grassy weeds, was not done. In many cases where fields were sprayed, serious weed growth developed when the rains finally came in late June. By this time, crops that had not been sprayed were too advanced.

Post-emergent products that had increased sales this past year were herbicides that had been on the market for several years. These included Banvel, DyVel, Target, Tordon 202C, Weedone and Weedar 2,4-D and MCPA. Sales of all wild oat and green foxtail herbicides were down.

With the end of the grasshopper cycle, sales of insecticides plummeted.

Overall sales of seed treatments were down from the year previous even though certain types of treatments experienced increased demand.

Other Farm Supplies. Twine sales were up 10 per cent over the previous year. Fibrillated synthetic twine accounted for 75 per cent of the volume.

With the poor harvesting weather in the fall of 1986, sales of grain moisture meters were good. The Airstream Helmet for use in dusty conditions continued to be well accepted. Sales of tarpaulins, grain shovels, paint, feed, Silo King Plus, and other miscellaneous products declined.

Seed operations

Compared to the previous year, the seed division increased total sales by \$4.4 million to \$26 million, a new sales record. Higher volumes of mustard, forages and pony oats contributed to the record sales.

The division's seed handling facilities are in reasonable condition. Improvements are underway at Swan River, Man., to improve capacity and allow some diversification. The division has relocated its facilities at Dawson Creek, B.C. This facility has a gathering capac-



Valmar Spreader mounted on a pickup is available from some UGG elevator managers for fast, easy application of granular herbicides.

ity for about one million pounds of forage seed, as well as cleaning equipment for creeping red fescue.

Although the number of acres seeded to forage crops was similar to last year, quality was average or better. Yields for all crops were good, except for brome and crested wheatgrass, which suffered because of very dry and hot conditions.

Exports were up considerably into the United States and improved in Europe as well. The big impact on the forage export markets was the Conservation Reserve Program in the United States.

The U.S. program is ongoing, and has removed about 30 million acres of marginal land out of crop production to date. The goal of the United States government is to designate or sign up 50 million acres or more into this program. Land in the program is seeded to perennial crops which could include trees. Crops authorized for seeding down the accepted acreage cannot be harvested for ten years. Canadian crops used in the conservation program include brome, crested wheatgrass, timothy, and some of the clovers.

Creeping red fescue is still the biggest export item the seed division handles, representing about 20 per cent of total sales. Volumes handled increased for all forages this past year. Prices for forages were well above long term averages.

The packaging division did not reach the dollar volume targeted for the fiscal year, although gross margins improved slightly.

Mustard sales in the spring of 1987 were favorable, but there was some price-cutting. Your company met these lower prices to hold a solid position in the market, especially with long standing customers. As a result of lower priced 1987 pre-sales, contract prices to growers of No. 1 CW yellow were reduced from 15 cents a pound the previous year to nine cents a pound this past fiscal year.

This was caused by reported large free carryover in Western Canada, but more importantly because of reduced

European prices. Yellow mustard was in abundance in Europe and there was a threat of that seed coming to Canada. Oriental and brown mustard prices in Europe and Asian countries were also down, and exporting into these markets would have been done at no more than break-even.

Unseasonable weather, before and during harvest, caused poor curing of the mustard seed. So, a lot of mustard, especially yellow and brown, was downgraded due to damaged and green kernels. Your company indirectly participated in a large sale of low grade mustard into Bangladesh. While this was an opportunity to move a lot of the low grade mustard off the farms, profit margins were very small.

Markets for special crops were very competitive. Harvesting conditions were poor, which delayed delivery and lowered grades. Although the volume of all commodities handled was up, margins were well below the break-even point. Therefore, as was the case with mustard, prices on grower contracts were reduced on all production contracts in the spring of 1987. Peas were the only bright spot in the special crops program. Aided by the off-shore market for feed peas, sales were brisk and prices were reasonable.

A contract acreage program for canary seed, lentils, peas and buckwheat will be maintained, but sunflowers have been temporarily dropped.

Domestic sales of forages are up in

dollar value, but down in actual volume. A larger acreage appears to have been seeded down for seed production of clovers and grass seed. Also, many pastures were rejuvenated, instead of reseeded, because of the high cost of pasture mixes.

UGG continues to market a few proprietary varieties. These are very popular and are a positive contributing factor to sales.

Cereal and oilseed sales in Manitoba and Saskatchewan were equal to those of a year ago. Durum sales declined, but sales of spring wheat and barley were up. In Alberta, all cereal and oilseed sales were about 30 per cent lower.

Farmers looked to the cheapest source of seed this year because of low initial prices. There was a large increase in demand for seed for special crops right across the Prairies. Acreages of peas and lentils were up substantially.

Sales of birdseed and birdseed mixtures continue to grow out of the Edmonton warehouse. This is a local market only.

Volumes of oats processed by the feed mill increased by about 15 per cent. Off-shore sales were about the same as last year. However, the market dramatically increased into the United States. The Western Canada market for double re-cleaned oats improved as well.

Acquiring oats suitable for export as double re-cleaned oats was a problem during the year.



New bulk blending fertilizer plant at Codette, Sask.

The seed division ventured into variety testing and development of cereal grains this past year. It now has working arrangements with two major companies with plant breeding programs. One arrangement is for a large wheat program, while a lesser one is for barley, oats, and peas. Trials are located in all three Prairie provinces.

In conclusion, the seed division met and surpassed the challenging target set a year ago. The outlook is positive for forage seed and pony oats. Difficult times still prevail in the special crops program and the domestic sales of cereals. The involvement in variety testing and development has added a new and positive dimension to this division.

Terminal Operations

United Grain Growers operates three terminal elevators: two at Thunder Bay and one at Vancouver. Your company also has a 15 per cent interest in the Prince Rupert Terminal.

Your terminal elevators receive, clean, store and consolidate grain from individual carlots shipped from the primary or country elevator system. This allows assembly of grain into cargo lots and provides for the upgrading to meet export standards for grain destined to domestic or overseas markets. Lakers will carry up to 28,000 tonnes from

Table 5 — Terminal Handlings

Year	"A"	"M"	"Vancouver"	Total
1981/82	1,292,769	1,237,518	1,382,341	3,912,633
1982/83	1,793,891	1,014,539	1,213,853	4,022,283
1983/84	1,911,481	1,241,766	1,292,419	4,445,666
1984/85	1,522,075	603,132	1,201,981	3,328,188
1985/86	1,444,895	514,468	1,202,147	3,161,470
1986/87	1,671,630	869,580	1,289,562	3,830,772

Table 6 — Tonnes per Labour Hour

Year	"A"	"M"	"Vancouver"
1981/82	4.916	5.292	5.451
1982/83	6.545	5.093	4.998
1983/84	7.735	7.540	5.128
1984/85	7.673	7.036	5.400
1985/86	7.401	6.912	4.861
1986/87	8.067	9.807	5.456

Table 7 — Terminal Labour Costs

Year	Total Operating Costs	Salaries and Employee Benefits	%
1981/82	16,878,924	12,122,271	72.0
1982/83	18,775,304	13,161,952	70.0
1983/84	19,778,532	13,819,749	70.0
1984/85	16,041,359	11,151,355	69.5
1985/86	17,344,429	11,748,866	68.0
1986/87	17,481,063	11,650,966	67.0

Thunder Bay to the transfer elevators on the St. Lawrence. Ocean vessels, while

averaging 30,000 tonnes, can range up to 70,000 or 80,000 tonnes.

The combined licensed capacity of the three UGG terminal elevators is 424,000 tonnes. During the 1986/87 crop year, these facilities handled 3.8 million tonnes or nine times their capacity.

Receipts during the 1987 fiscal year at all terminal locations totalled 31.2 million tonnes, compared to 24.7 million tonnes the previous year. Shipments, both export and domestic, from all ports totalled 31.8 million tonnes. This was accomplished despite the labour problems which effectively shut down Thunder Bay for a five-week period from September 4, to October 10, 1986.

The shipments of grain this past year through the West Coast were the highest ever and totalled 16.0 million tonnes. Of this, 11.9 million tonnes were shipped through the port of Vancouver and 4.1 million tonnes through Prince Rupert.



Hines Creek, Alta. new bulk blending fertilizer plant.

United Grain Growers' Vancouver terminal experienced an 8.6 per cent increase in receipts and a 10.3 per cent increase in shipments despite the loss of the west berth for loading vessels on July 16. The Vancouver terminal was unable to use either the east or west berth for vessel loading for a one-week period until the dock was declared structurally safe by engineers. Repairs to the west berth were completed in September.

The port of Thunder Bay experienced an increase in receipts during the year totalling 14.8 million tonnes. United Grain Growers' Thunder Bay terminals receipts were 2.5 million tonnes, and this was accomplished by partial use of Terminal M and full utilization of Terminal A.

The Canadian Wheat Board had a winter rail program from Thunder Bay to Eastern transfer elevators during January to March. The all rail movement was made up of 102 unit trains consisting of 10,242 cars carrying 910,190 tonnes of grain.

Current projections for the 1987/88 crop year suggest that grain movement should be similar to that in the 1986/87 crop year.

Construction and Upgrading. This past year saw the completion of the concrete restoration at Terminal M in totality and the workhouse at Terminal A. This project includes the repair and resurfacing of exterior walls and their painting with a protective sealant.

A new grain cleaning bank was installed at Terminal A. This new method includes three cylinder machines and one rotary screen machine, and increases the grain cleaning capacity and cleaning flexibility at Terminal A. The new cleaner's capacity is 210 tonnes per hour compared to the old system's capacity of 120 tonnes.

Engineering studies have been completed on the upgrading and improvement of UGG's Vancouver terminal's trackshed, distribution system and cleaning capabilities. The study has identified improvements in those areas which will enhance the Vancouver terminal's throughput capabilities, efficiency and productivity. These improvements will be developed further as capital becomes available.

Feed Operations

United Feeds continued to be the largest supplier of complete livestock and poultry feeds in Western Canada.

A decrease in the volume of feed manufactured, especially for beef cattle, combined with lower selling prices, resulted in sales being down \$9 million from the year previous.

During the year, United Feeds manufactured 256,000 tonnes of feed, a decrease of 11.7 per cent. Beef cattle feed production was down 17,000 tonnes, hog feed 6,000 tonnes, dairy cattle feed 1,000 tonnes, poultry feeds 5,000 tonnes and miscellaneous feeds 7,000 tonnes. The low value of grain led to more on-farm processing.

Of the feeds manufactured, 38 per cent was for beef cattle, 23 per cent for dairy, 21 per cent for hogs, 13 per cent for poultry and 5 per cent for other livestock. Sales of complete feed decreased by 13 per cent while premix and supplement feeds increased by 15 per cent.

United Feeds operates 10 mills in Alberta, two mills in Saskatchewan, one mill plus a macro hog premix and mineral plant in Manitoba and one mill in British Columbia.

In addition, company-owned cattle were custom-fed in feedlots at Yorkton and Regina, Sask. and at Midnapore and Lethbridge, Alta. These demonstration programs are geared to encour-



Vancouver terminal's west berth, damaged in mid-July, is now back in full operation. Shipments during the year were up 10.3 per cent over the previous year.

age feedlot owners and farmer-cattlemen to use Unifeed complete feedlot rations and supplements in their operations.

A total of 173,000 tonnes of feed grain was purchased and processed during the year. Of this 69 per cent was purchased directly from farmers, 23 per cent from United Grain Growers' country elevators and the balance from other grain companies and dealers.

The feed operations also custom ground or rolled 26,000 tonnes for farmers who brought in their own grain.

Price declines of the major ingredients used in feed formulations decreased the average cost per tonne of feed by \$16 (Table 8).

Tonnes of feed sold from your Innisfail, Alta., Pet Food plant decreased by 922 tonnes compared to the year previous. Co-packing (processing and packaging for other companies) represented 80 per cent of the production and Western Pet Foods brands made up the balance. The decrease in volume from co-packing Gaines Meal and Total Diet was partially offset by an increase in the Unifeed Nu-Way line of pet foods.

During the year, major additions were made to the mill at Carman, Man., and to the Pet Food plant. Smaller capital expenditures were made on nine other mills. The mill at Carstairs, Alta. was closed and the facility transferred to country operations. The distribution warehouse at Wynyard, Sask. was sold.

Livestock Markets. Hog prices started the year at \$97 for index 100, bottomed out at \$67 in March, and increased to \$90 in June. Higher numbers of hogs coming onto the market are expected to push these prices lower during the balance of 1987 and into 1988.

The fat cattle market started the year

at \$76 per hundredweight, peaked in May at \$88, and dropped to the lower \$80-range in August. Beef prices are expected to be pressured down by the increased supplies of alternate meats. However, it is projected that the abundant supply of feed grains and hay plus their lower prices will maintain costs of grain at relatively low levels.

Higher quotas, steady broiler prices and lower feed costs resulted in excellent returns to broiler producers this past year.

There was little change in the dairy industry as current production is running close to the Canadian market share quota. Milk prices remained constant during the year. Butter stocks declined. Production and use of cheese, particularly specialty cheeses, increased. Total dairy cattle in Canada decreased 3 per cent during the last year to let the dairy industry stay within market share quota. Outlook for prices for dairy products, worldwide, remains poor.

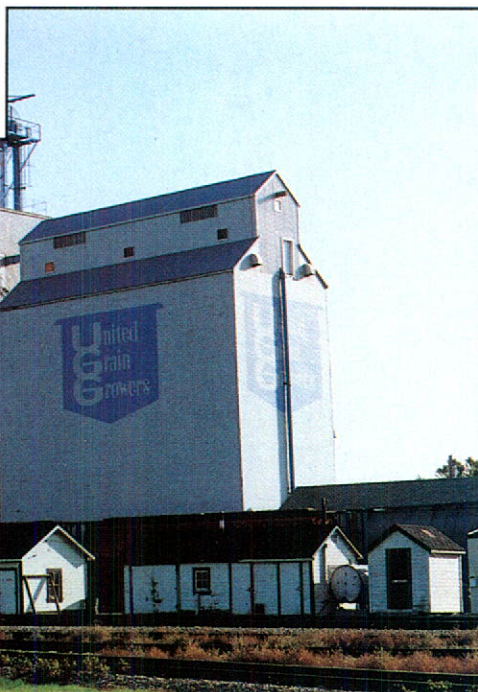
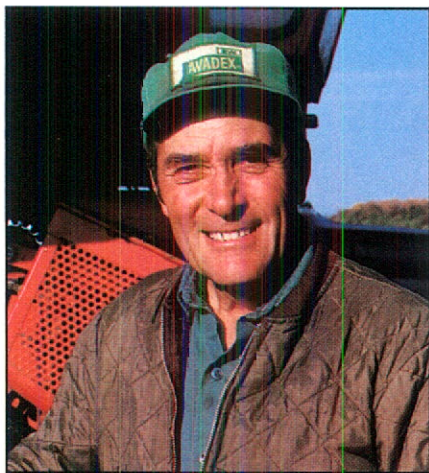
Publishing Operations

Earnings from publishing operations at Public Press declined this past year. Advertising lineage in *Country Guide* was less than the previous year, because of the continued depressed grain economy in Canada. However, ad revenue increased in *Hog Guide*, *Dairy Guide* and *Cattlemen*, indicating the buoyancy of the livestock industry.

Country Guide's new annual magazine, *Canola Guide*, was launched in February, 1987, to 113,000 subscribers in canola growing areas. Reaction from industry, researchers and subscribers was positive. Financial targets were met and the second edition will be published in February, 1988.

Total costs of publishing magazines were reduced slightly in the past year due to cost containment measures. Management will continue efforts to prevent costs from rising, although printing charges and employee wages have risen about 3 per cent.

Subscribers of *Country Guide* now get more personalized editions for each



New annex was added to the Neepawa, Man. elevator. Inset: Local Board Secretary Glen Montgomery.

region as the Eastern and Western editions have different front covers and major features.

Country Living section has been revamped to include more reader features for the entire family. At the same time, *Country Guide* raised subscription rates by 25 per cent. *Country Guide* will monitor results of these changes to effectively plan the size and date of future increases. The circulation department is expected to contribute a major share of the profits in the future.

Plans for the current year call for an increase in advertising revenue by gaining some new clients through special sales presentations. Subscription revenue is estimated to increase due to higher rates. *Country Guide* plans to hold the line on costs, thus producing modest earnings.

These estimates are based on continued strength in the livestock sector and a grain economy that, while not getting any worse, may show some signs of recovery.

Cattlemen, Canada's beef magazine, with 41,000 subscribers, presents a unique, detailed monthly coverage of significant trends in the cattle industry. Special highlights are the monthly market analysis and the semi-annual *Beef Watch*.

With lower feed costs, it is expected *Cattlemen*, *Hog Guide*, and *Dairy Guide* will show growth this fiscal year.

Grainews circulation continued to increase. During the year, an additional 4,000 Prairie farmers subscribed to your company's popular farm newspaper. Circulation has now reached almost 68,000.

Advertising is limited by the directors of your company to a maximum of 25 per cent of annual editorial pages. Even though advertising done by the major national companies declined, because of the depressed farm economy and farmers cutting back on inputs and big machinery purchases, *Grainews* was able to secure a 10 per cent increase in advertising revenue at the expense of competitors. The gains would have

Table 8 — Average Cost of Feed Ingredients

	Wheat	Oats	Barley	Corn	Soya	Canola	Meal
July, 1986	\$121	\$105	\$102	\$163	\$300	\$189	\$309
October, 1986	96	80	78	122	250	166	314
January, 1987	89	78	75	144	267	170	305
April, 1987	82	77	72	141	265	162	290
July, 1987	81	71	74	148	319	160	339

been greater except for a major advertising agency going into receivership.

Grainews continued its safety campaign. The "Please Be Careful We Love You" decals encourage operators of farm machinery and people who work around livestock to be careful because members of their family love them and are concerned about their well-being. The "Lovebug" buttons encourage children and wives and grandparents around the farm to be safety conscious and "bug" Dad about being safe. Over 110,000 "Please Be Careful . . ." decals and over 8,000 "Lovebug" buttons have been mailed since the programs began.

UGG Farmers Library continued to supply books not readily available to farmers. The library now lists over 150

titles. In addition, it provides a number of popular items such as grain confetti, cattle brisket tags, tire changers, grain probes and hot houses for starting and growing vegetables.

Grainews continued to offer a blend of technical and marketing news and analysis, humor and on-farm stories that appeal to farm people. Its strength appears to be its unique farm forum whereby farmers exchange ideas, participate in contests, share opinions and technical experience among themselves.

The *Bargain Center* established the previous year, has now gained major acceptance from retail dealers. *Grainews* expects to receive a substantial increase in this retail section this year.



United Feeds operate modern feed mills, like the one at Carman, Man., at 14 locations across the Prairies.

Printing Operations

Financial results from Public Press printing operations this past year were totally unsatisfactory. Sales were down sharply in a severely competitive market.

Insufficient sales and poor margins had a devastating effect on overall bottom line results.

Non-recurring expenses incurred in restructuring the division and setting it upon a growth plan were accounted for. Ordinary expenses were below budget.

There is excess capacity in the printing industry, especially in mid-western Canada. As a result of this and the poor, flat economy, the business year was

marked with severe price cutting in major markets.

The increased sales force and sales offices should lead to increased business in the current year. Along with cost control measures in place, there is some hope Public Press printing operations will turn around this year.

United Beef Feeders Operations

United Beef Feeders, your company's custom cattle feeding service at Sanford, Man., had a loss of \$53,000. During the year, 2,475 calves were backgrounded for Eastern Canadian cattlemen and 162 head for Western feeders. Another 2,278 head were

finished for Prairie farmers.

Yard occupancy of the 4,000-capacity lot was lower this past year due to the higher level sell-off of Manitoba feeder cattle in the fall of 1986. Most left the province either south or to other provinces with more attractive subsidized feeding programs. With the objective of improving feedlot capacity-use this season a brochure, primarily aimed at Manitoba cow-calf operators, describing the feedlot and the cost-benefit of having cattle custom fed is currently under preparation.

In July your company bought 40 acres of land next to the feedlot. This purchase was a precautionary measure to prevent a residential area developing which could cause environmental concerns.

The directors encourage shareholders to advise neighbors of the custom feedlot and the service it provides.

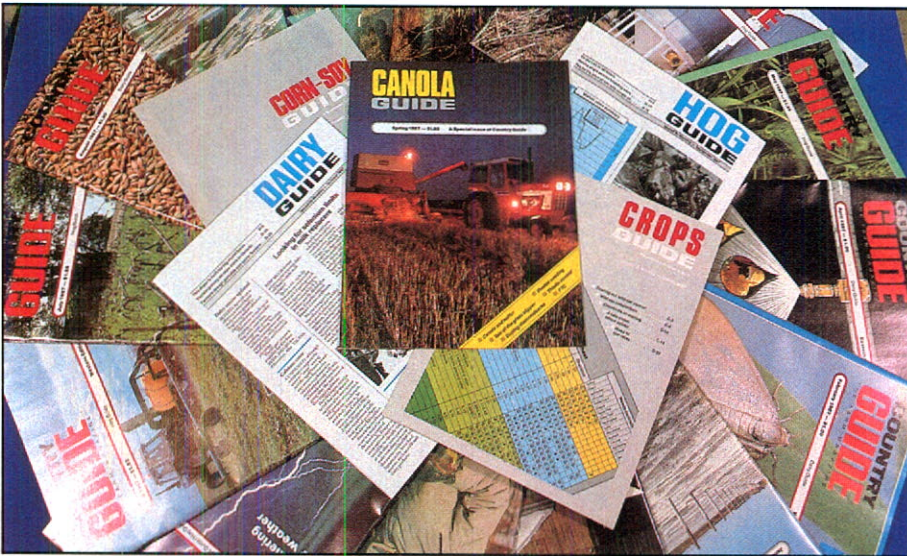
Associated Companies

United Grain Growers has at times found joint ownership of associated companies to be of advantage. Such an arrangement allows pooling of resources and sharing of risk by two or more companies. Joint ownership is currently held in United Oilseed Products Ltd. and Prince Rupert Grain Ltd. In addition, United Grain Growers is involved with Allelix Inc. in a joint venture to develop and market canola hybrids.

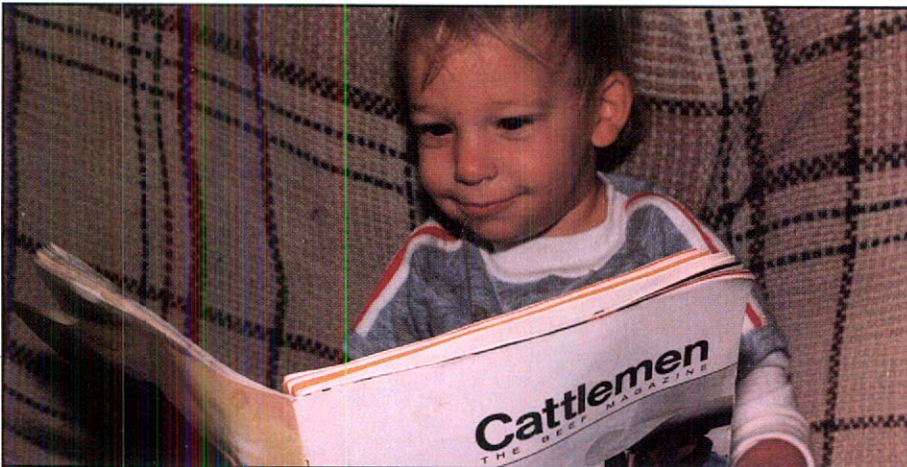
Prince Rupert Grain Ltd.

Prince Rupert Grain Ltd. was incorporated by a consortium of grain companies, including United Grain Growers, to construct, manage and operate the terminal facilities at Prince Rupert, British Columbia.

In 1987, the new terminal had earnings of \$21.3 million on handlings of slightly more than 4 million tonnes. This compares to earnings for the previous year of \$2.4 million on handlings of 1.5 million tonnes. After payment of a shippers' return of \$7.8 million, the balance



Country Guide and specific enterprise magazines.



Even the youngest readers enjoy Cattlemen magazine.

United Grain Growers Limited

Annual Financial Statements

July 31, 1987 / Eighty-first Year



Responsibility for Financial Statements



UNITED GRAIN GROWERS LIMITED

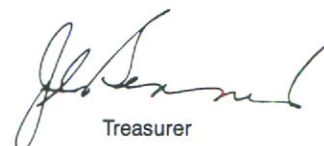
The financial statements of the Company for the year ended July 31, 1987 have been prepared by management in accordance with generally accepted accounting principles. Careful judgments have been made in the preparation of the financial statements. Estimates and approximations are sometimes necessary because many matters affecting the current financial statements, such as the provision for uncollectible accounts receivable, pension costs, depreciation of fixed assets and provision for income taxes, will not be finally resolved until months or years have passed. It therefore follows that the financial statements cannot be precise statements of fact. They have, however, in management's opinion, been properly prepared within reasonable limits of materiality, and within the framework of the accounting policies outlined in the Notes to Financial Statements.

Management believes the internal control systems in use by the Company are adequate to provide a reasonable assurance that assets are safeguarded against loss from unauthorized use or disposition and that the financial records properly reflect the financial position of the Company at July 31, 1987 and results of its operations for the year then ended.

The Company's independent auditors, Price Waterhouse, provide an objective, independent review of management's discharge of its responsibilities where they relate to internal control systems, reported operating results and the financial position of the Company.

Winnipeg, Canada
October 6, 1987


General Manager


Treasurer

Auditors' Report to the Shareholders

Chartered Accountants

2200 One Lombard Place
Winnipeg, Man. R3B 0X7

(204) 943 7321
Telex 07 587728

Price Waterhouse



We have examined the statements of earnings, retained earnings and changes in working capital and cash position of United Grain Growers Limited for the year ended July 31, 1987, and the statement of financial position at that date. Our examination was made in accordance with generally accepted auditing standards, and accordingly included such tests and other procedures as we considered necessary in the circumstances.

In our opinion, these financial statements present fairly the results of the company's operations and the changes in its working capital and cash position for the year ended July 31, 1987 and its financial position at that date in accordance with generally accepted accounting principles applied on a basis consistent with that of the preceding year.

Winnipeg, Canada
October 6, 1987


Chartered Accountants

Earnings

For the Year Ended July 31, 1987

	1987	1986
Sales and revenue from services (note 1)	\$905,941,000	\$984,211,000
Operating revenues	\$124,277,000	\$125,319,000
Gain on property disposals	739,000	94,000
	125,016,000	125,413,000
Operating, general and administrative expenses (note 2)	118,207,000	115,305,000
Earnings before income taxes and losses on investments	6,809,000	10,108,000
Provision for income taxes (note 3)	3,823,000	4,731,000
Earnings before losses on investments	2,986,000	5,377,000
United Oilseed Products (note 5)	—	2,839,000
Prince Rupert Grain Terminal (note 5)	505,000	2,164,000
Income tax recoveries	(263,000)	(1,714,000)
Losses on investments, net of income tax recoveries	242,000	3,289,000
Net earnings	\$ 2,744,000	\$ 2,088,000

Retained Earnings

For the Year Ended July 31, 1987

	1987	1986
Balance at beginning of year	\$ 70,215,000	\$ 69,775,000
Net earnings	2,744,000	2,088,000
	72,959,000	71,863,000
Deduct:		
Dividend of 7% declared on Class A Shares	1,684,000	1,620,000
Dividend of 7% provided on Class B Shares	29,000	28,000
	1,713,000	1,648,000
Balance at end of year	\$ 71,246,000	\$ 70,215,000

Changes in Working Capital & Cash Position

For the Year Ended July 31, 1987

	1987	1986
Cash from operations:		
Net earnings	\$ 2,744,000	\$ 2,088,000
Items affecting earnings not requiring the use of working capital	16,055,000	17,370,000
	18,799,000	19,458,000
Cash from (used in) financing activities:		
Proceeds from issue of promissory notes and debentures	666,000	364,000
Retirement of long-term debt Series "A" debentures	(950,000)	(950,000)
Promissory notes and purchase agreement	(299,000)	(399,000)
Patronage dividend credits	796,000	(318,000)
Shareholders' dividends	(1,713,000)	(1,648,000)
	(1,500,000)	(2,951,000)
Cash from (used in) investing activities:		
Capital expenditures for properties, net of investment tax credits	(12,826,000)	(11,019,000)
Investment in Grain Insurance & Guarantee Company	(1,050,000)	—
Proceeds from property disposals	1,491,000	534,000
Deferred charges — Pensions	(1,000,000)	(1,700,000)
— System development costs	(613,000)	—
— Research & development	(526,000)	(367,000)
	(14,524,000)	(12,552,000)
Increase in working capital	2,775,000	3,955,000
Working capital at beginning of year	46,064,000	42,109,000
Working capital at end of year	\$ 48,839,000	\$ 46,064,000

Reconciliation of Change in Working Capital to Cash Position

Increase in working capital	\$ 2,775,000	\$ 3,955,000
Change in non-cash components of working capital	2,675,000	(78,000)
Increase in cash position	5,450,000	3,877,000
Cash position at beginning of year	(25,836,000)	(29,713,000)
Cash position at end of year	\$(20,386,000)	\$(25,836,000)

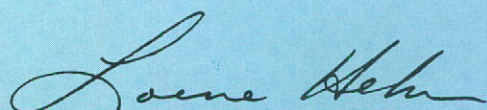
Cash is defined as cash, deposits with and grain held for the account of The Canadian Wheat Board less bank and other loans and unrepresented grain and other cheques. The cash position arises from net short term borrowings primarily used to finance accounts receivable and inventories for the Company's own account.


Financial Position

As at July 31, 1987

	1987	1986
ASSETS		
Current Assets		
Cash	\$ 4,184,000	\$ 5,047,000
Deposits — The Canadian Wheat Board	13,294,000	19,983,000
Accounts receivable and accruals	40,158,000	51,924,000
Inventories (note 4)	143,210,000	183,046,000
Prepaid expenses	3,273,000	2,669,000
	204,119,000	262,669,000
Deferred charges (note 1)	4,321,000	2,472,000
Investments (note 5)	5,496,000	4,967,000
Properties (note 6)	131,003,000	129,916,000
	<u>\$344,939,000</u>	<u>\$400,024,000</u>
LIABILITIES AND SHAREHOLDERS' EQUITY		
Current Liabilities		
Bank and other loans (note 7)	\$ 93,450,000	\$138,494,000
Unpresented grain and other cheques	37,232,000	50,750,000
Accounts payable and accruals	21,426,000	23,644,000
Share dividends payable	1,684,000	1,737,000
Long-term debt due within one year	1,488,000	1,980,000
	155,280,000	216,605,000
Long-term Debt (note 8)	52,091,000	51,922,000
Deferred Income Taxes	41,854,000	36,857,000
Commitments (note 9)		
SHAREHOLDERS' EQUITY		
Share Capital (note 10)	24,468,000	24,425,000
Retained Earnings	71,246,000	70,215,000
	95,714,000	94,640,000
	<u>\$344,939,000</u>	<u>\$400,024,000</u>

On behalf of the Board:


Director


Director

Notes to Financial Statements

July 31, 1987

1. Accounting Policies

Sales and Revenue from Services

Sales and revenue from services include the sales value of grain purchased for the account of and delivered to The Canadian Wheat Board and include export sales of \$76,431,000 (1986 — \$100,932,000).

Inventories

Grain held in store or in transit for the account of The Canadian Wheat Board is valued on the basis of Board initial prices and handling costs.

Other grain inventories are valued on the basis of closing market quotations and handling costs and also reflect gains and losses accrued on open grain purchase and sales contracts as at the close of the fiscal year, which is in accordance with grain industry practice. The grain inventory includes both hedged and unhedged positions.

Farm supplies, seeds and feeds inventories are valued at the lower of cost or net realizable value.

Deferred Charges

Deferred charges consist of:

Deferred financing costs of \$138,000 (1986 — \$159,000) related to the issue of debentures, amortized over the terms of the debentures.

Deferred systems development costs of \$583,000 (1986 — nil) related to the cost of developing major new computer systems, amortized over a 36 month period.

Deferred development costs of \$900,000 (1986 — \$613,000) incurred in a joint venture with Allelix Inc. to develop hybrid canola varieties, to be amortized over future years.

Deferred pension costs of \$2,700,000 (1986 — \$1,700,000) which represent pension funding in excess of pension costs. The Company maintains a contributory defined benefit final average pension plan. The plan provides pensions based on length of service and final average earnings. During the year, contributions to the pension fund exceeded pension costs by \$1,000,000. The estimated present value at July 31, 1987 of the accumulated plan benefits was \$67,149,000 and the estimated net assets available to provide for these benefits, at market value, amounted to \$70,274,000.

Properties

Properties are valued at cost reduced by investment tax credits claimed. The Company uses a combination of straight line and diminishing-balance methods of providing depreciation over the estimated useful lives of the properties as follows:

Country elevator and feed mill properties	6%	Diminishing Balance
Terminal elevator properties	2% to 3%	Straight Line
Terminal elevator and printing plant machinery and equipment	10%	Straight Line
Feed mill machinery	10%	Diminishing Balance
Other equipment, tools, furniture and fixtures	20%	Diminishing Balance

2. Operating, General and Administrative Expenses

	1987	1986
Operating, general and administrative expenses include —		
Depreciation	\$10,984,000	\$10,232,000
Interest on long-term debt	4,694,000	4,740,000

3. Provision for Income Taxes

The Company's statutory income tax rate is approximately 52%. The effective income tax rate for 1987 is 56.1% which includes an adjustment in respect of the prior year's income tax provision. The 1986 effective income tax rate was 46.8%. The provision for income taxes includes deferred income taxes of \$4,997,000 (1986 — \$2,211,000).

4. Inventories	1987	1986
Grain held for the account of The Canadian Wheat Board	\$ 92,818,000	\$138,378,000
Grain held for the Company's own account	16,754,000	11,388,000
Farm supplies, seeds and feeds	33,638,000	33,280,000
	<u>\$143,210,000</u>	<u>\$183,046,000</u>

5. Investments	1987	1986
<i>Prince Rupert Grain Terminal</i>		
Working Capital	\$ 215,000	\$ 125,000
Properties, net of investment tax credits	45,805,000	45,878,000
	<u>46,020,000</u>	<u>46,003,000</u>
Non-recourse claims against the facility:		
11% mortgage bonds including accrued interest	22,798,000	22,260,000
Series A participating debentures	18,776,000	18,776,000
	<u>41,574,000</u>	<u>41,036,000</u>
Net investment in Prince Rupert Grain Terminal	4,446,000	4,967,000
<i>Grain Insurance and Guarantee Company</i>		
Shares, at cost	1,050,000	—
<i>United Oilseed Products</i>		
Shares, at cost	7,850,000	7,850,000
Share of loss in year	—	(1,769,000)
Write-down in value of investment	—	(1,070,000)
Loss on investment in United Oilseed Products	—	(2,839,000)
Share of accumulated losses, net of dividends received, at beginning of year	(7,850,000)	(5,011,000)
	<u>(7,850,000)</u>	<u>(7,850,000)</u>
Net investment in United Oilseed Products	—	—
Total Investments	<u>\$ 5,496,000</u>	<u>\$ 4,967,000</u>

The Company's investment in the Prince Rupert Grain Terminal is represented by a 15% undivided interest in the net assets of Ridley Grain Ltd. Cash flows provided by operations for the year at this terminal have not been sufficient to fully service the interest charges accrued on the 11% mortgage bonds. The resulting shortfall has reduced the Company's investment by \$505,000 (1986 — \$2,164,000) which has been reflected as a loss in the Company's Statement of Earnings.

As a result of the prior year's write-down in the value of the Company's investment in United Oilseed Products, the Company's \$194,000 share of United Oilseed Products' income for the current year has not been reflected in these statements.

6. Properties	1987	1986
Country elevator properties, feed plants, seed cleaning plants, warehouses, sheds, feed lot and research station	\$145,965,000	\$139,624,000
Terminal elevator properties	73,272,000	70,155,000
Printing plant equipment	3,939,000	3,943,000
Miscellaneous equipment	10,883,000	9,797,000
	<u>234,059,000</u>	<u>223,519,000</u>
Accumulated depreciation	103,056,000	93,603,000
	<u>\$131,003,000</u>	<u>\$129,916,000</u>

7. Bank and Other Loans

Inventories and accounts receivable have been pledged as security for bank loans of \$54,731,000 (1986 — \$74,218,000).

8. Long-Term Debt

	1987	1986
Debentures	\$22,400,000	\$23,350,000
Promissory notes	4,641,000	4,157,000
Purchase agreement maturing \$118,000 annually to 1995	824,000	942,000
Patronage dividend credits	24,226,000	23,473,000
	<hr/>	<hr/>
	\$52,091,000	\$51,922,000

Series A 10¼% debentures are repayable \$950,000 annually to 1996 with the balance of \$4,800,000 due in 1997. Series B and C 12% debentures are repayable annually in installments of \$2,000,000 in 1989, \$5,000,000 in 1990 and \$3,000,000 in 1991. All debentures are secured by a first mortgage on real property and a floating charge on all other assets. Patronage dividend credits includes interest accrued at 6 or 7%, depending upon the year issued. Promissory notes and patronage dividend credits are payable in each of the fiscal years as follows:

	Promissory Notes	Patronage Dividend Credits
1989	\$ 374,000	\$ 481,000
1990	3,316,000	508,000
1991	339,000	4,146,000
1992	162,000	475,000
1993	120,000	2,755,000
1994-96	330,000	15,861,000
	<hr/>	<hr/>
	\$ 4,641,000	\$24,226,000

9. Commitments

The Company is lessee of office premises and equipment, various storage facilities and sites, a printing plant building and licensed vehicles under leases with terms ranging up to eleven years, involving current minimum annual rental payments of approximately \$4,900,000 (1986 — \$4,800,000).

The Company has provided letters of undertaking to secure the long-term lines of credit of United Oilseed Products up to \$7,800,000.

10. Share Capital

	1987	1986
Class A non-voting, non-cumulative redeemable preferred shares callable at \$24, par value \$20 each		
Authorized 2,200,000 shares;		
Outstanding 1,202,703 shares (1986 — 1,200,193)	\$24,054,000	\$24,004,000
Class B (membership) shares par value \$5 each		
Authorized 200,000 shares;		
Outstanding 82,758 shares (1986 — 84,271)	414,000	421,000
	<hr/>	<hr/>
	\$24,468,000	\$24,425,000

During the year, 2,493 Class A shares were issued at par value to customers who exercised their options to convert their patronage dividends to shares.

In addition 17 Class A and 99 Class B shares were issued at par value and 1,612 Class B shares were purchased for re-issue.

11. Related Party Transactions

During the normal course of business, the Company sold canola to and purchased products from United Oilseed Products and shipped grain to the terminal operated by Prince Rupert Grain.

of the earnings is distributed to the Government of Alberta to cover interest on the 11 percent first mortgage bonds.

At July 31, 1987, UGG's share of interest owing, unpaid to the Government of Alberta, on these bonds was \$505,000. This interest represents a loss on the operations and has been applied to your company's investment in Prince Rupert Grain. This loss is shown as an investment loss on the year end statements.

UGG's share of shipments to the new Terminal was 628,000 tonnes and the share of shipper's return amounted to \$1.2 million. After deducting your company's \$200,000 share of the demolition of the old terminal, the shipper's return to your company amounted to \$946,000. This compares to \$295,000 a year ago.

The demolition of the old terminal was approved by the consortium members

in December of 1986. Total cost was \$1.4 million.

Ridley Grain Ltd.

This associated company was incorporated for the purpose of holding in trust, for the consortium members, the new grain handling facility and the existing elevator operated by Prince Rupert Grain Ltd. The existing elevator was demolished during the year and the land was transferred back to the Federal Government. UGG's interest in this company is 15 per cent.

United Oilseed Products Ltd.

United Oilseed Products (UOPL) is a company with a crushing plant located at Lloydminster, Alta. This associated company is owned by The Nisshin Oil Mills Ltd. (15%), Mitsubishi Corporation (35%) and United Grain Growers

(50%). The plant accounts for about one-sixth of the canola crushing capacity in Western Canada.

Severe competitive pressure in both domestic and international markets continued throughout the year. This kept vegetable oil and protein meal prices low, however sufficient supplies of seed and the ability to use off-grade seed enabled the company to maximize production and reduce costs. The earnings for the year were \$388,000, compared to a loss of \$3,516,000 the previous year.

Competition in world markets for vegetable oil continued to be intense during the year. Reduction in palm oil production, due to low prices and drought conditions in Malaysia, helped to steady prices. Government intervention by Canada's major competitors continue to be a major obstacle to UOPL's ability to penetrate off-shore markets. Canada has no subsidy programs comparable to what competing nations offer their oilseed processing industries. The relatively low vegetable oil prices were reflected in the lowest selling prices for canola that farmers have experienced for many years.

Vegetable protein meal prices remained relatively strong throughout the year, reflecting good world demand for protein, improved feeding margins and a continuing decline of the U.S. dollar against other major world currencies.

Canola seed production of 3.8 million tonnes ensured sufficient seed to meet demand. Canola growers were able to find ready markets as both domestic crushers and export demand set record levels. Farmers also were able to sell most of the off-grade seed produced. In fact, the record carryover projected did not materialize, as carryout stocks were reduced to the point where tightness of seed supplies put upward pressure on seed prices relative to the value of oil. This reduced crushing margins during the latter part of the year.

The critical factor in the ability to generate a profit for the year was the better efficiency brought about by cost reduction measures and the record crush volume. When combined, these resulted in



Grainews, issued 18 times a year, is enjoyed by some 68,000 Prairie farmers. Here an issue is being collated, labelled and mailed.

an 8 per cent reduction in the throughput cost per tonne.

For the current year, early forecasts of seed supply from the 1987 harvest, combined with the carryover from last year, appear to be just adequate to meet demand. World markets for both oil and meal are expected to remain very competitive and government inter-

vention and subsidies of competing nations will continue. Drought conditions in southeast Asia may bring good demand, and world oil demand in this crop year is expected to exceed production. This should reduce world vegetable oil stocks and bring about firmer prices. As well, Canadian oilseed companies' market development effort in

the United States over the past year and one-half are expected to result in significant commercial demand for canola oil in the current year.

Hybrid Canola Joint Venture

The joint venture formed between United Grain Growers and Allelix Inc. in 1985 to develop hybrid spring canola for Western Canada significantly expanded its field plot program this crop year. This was made possible by the purchase last year of a 320-acre farm at Rosebank, Man.

Field trials were conducted at three locations in Saskatchewan, and six locations in Manitoba, including the research farm. Canola field trials were also conducted on the Allelix research farm in Mississauga, Ont.

This year, newly-developed hybrids were placed in both the co-op trials, and the strain tests for independent evaluation to establish performance levels and adaptability to Western Canada. It is expected five to ten additional hybrids will be entered in the co-op tests in 1988. It is still projected that, guided by the research and development conducted to date, the introduction of hybrid canola on a commercial basis should be possible by 1990. Tests continue to suggest canola hybrids can increase yields by 25 per cent or more.

The Grain Insurance and Guarantee Company

On January 1, 1987, United Grain Growers became a shareholder of Grain Insurance and Guarantee Company at a cost of \$1,050,000.

This company specializes in insuring primary grain elevators and is jointly owned by several grain companies.

UGG premiums approximate 38 per cent of the shareholder business that Grain Insurance underwrites.

The Grain Insurance and Guarantee Company has enjoyed a successful underwriting record, achieving an underwriting profit in 63 of its 66 years of existence. Dividends have been paid every year since 1947, with the last ten years averaging 5 to 6 per cent.



High-quality forage is harvested (top) and stored in plastic bags for feeding at United Beef Feeders feedlot near Sanford, Man.

Other Items

Risk and Insurance Operations

Corporate risk management

Your company's risk management objective is to preserve the company's assets by containing losses at the lowest possible level and funding these losses at the lowest possible cost.

This process of risk management consists of four basic functions. These are 1) identify potential loss situations; 2) evaluate the risk involved based on past records and loss data; 3) attempt to control the risk by preventing it, eliminating it or financing it by a program in insurance; and 4) administer the programs to prevent losses by theft, fire and safety.

Beginning in the 1987 fiscal year, there was a major departure from the property insurance program your company had placed with Lloyds of London for the previous 27 years. That program provided for insurance on all UGG properties with a premium of \$3.6 million. However, this arrangement had a deductible of \$1.5 million which applied to country elevator losses. This meant,

in the event of a loss, UGG total cost of risk (premium plus deductible) was \$5.1 million.

The new risk program, initiated for the new year just ended, split the property into two groups. The first group consisting of major plants, such as terminal elevators and sprinkler-protected feed and seed plants, were insured for a cost of \$1.9 million — most of it on the London insurance market.

The second group consisting of the primary elevators was insured at a cost of \$1.7 million with The Grain Insurance and Guarantee Company. Thus, total premium for the new program was \$3.6 million or the same as the previous year. However, the insurance of primary elevators does not carry the \$1.5 million deductible.

Your company's risk and insurance division has now arranged elevator coverage with The Grain Insurance and Guarantee Company.

Your company's property insurance costs are expected to stabilize and possibly reduce in the next crop year primarily due to a loosening of world insurance markets. The risk and insur-

ance division has negotiated a higher property limit for the current year of \$175 million compared to \$116 million for the previous year at a premium \$200,000 less.

Loss Prevention. Tied closely to your company's relationship with The Grain Insurance and Guarantee Company is the program of inspection carried out by its subsidiary, The Affiliated Inspection Bureau (AIB).

United Grain Growers has had AIB inspect its facilities since 1951 on a fee-for-service basis. In 1985/86, for example, the fee was \$150,000. Now, because United Grain Growers is a shareholder, this fee is waived and inspections are done as part of the insurer's service.

The risk and insurance division continued to promote the existing programs which include Operations Provident, Eyes of Awareness and Operation Clean Sweep. These programs are aimed at reducing loss due to theft, fire and carelessness.

UGG Insurance Services

A wide range of farmer-group insurance plans continue to appeal to farm-



United Oilseeds Products crushing plant at Lloydminster, Alta.

ers. Each of the six farmer-group insurance plans is underwritten on a group basis to keep premiums as low as possible. These plans include:

- **Farmer Group Accident Insurance.** This program is promoted through the elevator manager. Despite its low-cost feature and generous schedule of benefits, interest in this plan continues to

decline. During the year, less than a thousand farmers subscribed to the plan.

- **Group Registered Retirement Savings Plan: Tax Saver.** The interest rate for the Savings Account and the Term Options are set each month by Great West Life Assurance Company and are in line with other RRSPs.

- **Farmer Group Income Replacement Plan:** This program continues to be one of the best available in both coverage and costs. The plan is marketed by Citadel enrollment offices throughout the rural areas.

- **Farmer Group Whole Life:** Since the amount of coverage available under this program is no longer realistic no new policies were written during the year.

- **Farmer Group Term Life.** this plan has proven more popular than the Whole Life Plan because term insurance lets a person arrange more insurance coverage per dollar than buying insurance under the Whole Life Plan. Younger farmers prefer this plan.

- **Citadel Farmer Group Term Life.** This program is promoted by direct mail. It differs from the Farmer Group Term Life in that the plan provides a level amount of insurance with premium raised at each five-year age level.

FarmDecision Resources

FarmDecision Resources is a research and consulting service established August 1, 1986.

In its first year of operation, research services were sold to federal and provincial governments, agribusiness and farmers. The division also launched a monthly analysis newsletter called *Implications*.

The research division's prime areas of expertise include marketing research, farm policy, economic and market analysis, farm business management and strategic planning.

FarmDecision Resources continues to provide United Grain Growers with extensive policy and operational research services, also on a fee-for-service basis.

Automatic Wheat Grader

United Grain Growers and the University of Manitoba entered the second year of their five-year arrangement, supported by funding from the National Sciences and Engineering Research Council, to conduct research on finding a method to grade wheat by machine.

Scientists Walter Bushuk and Harry



Top: The Research Station at Rosebank, Man. was used extensively to test hybrid canola. Bottom: A plot combine harvests individual plots.

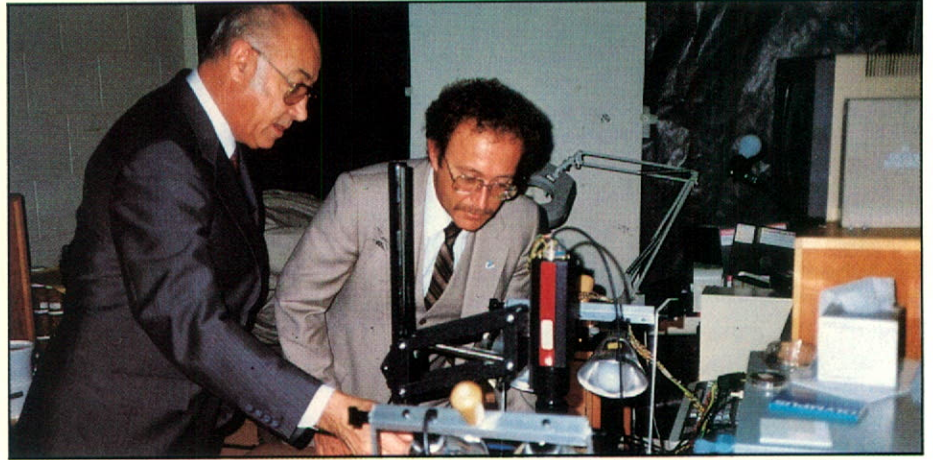
Sapirstein of the University's Food Science Department head up the research team. The objective is to replace visual inspections of wheat to establish grade with an image analyzer backed up by computer software. If the goal is reached, more concise measurements will be obtained in assessing wheat baking and milling quality. Such technology, if successful, will help Western Canadian wheat growers and their customers.

The study is budgeted at \$2.28 million over the five years with United Grain Growers' share, \$600,000, the University of Manitoba's share, \$550,000, and the Natural Sciences and Engineering Council providing \$1.13 million.

Rosebank Research Station

In its first year of operation, the newly acquired research station at Rosebank, Man. was used extensively to test canola varieties and hybrids as well as new varieties of wheat and barley. Plots were also seeded for BASF and Hoechst to conduct field tests on their crop protection products.

Operating with the Rosebank station as the main base, the manager and staff were able to seed about 10,000 indi-



University of Manitoba researcher, Walter Bushuk, shows UGG chief grain inspector, Derry Sager, how a computer image automatic wheat grader works.

vidual plots at the station and eight satellite locations. Six of the locations were in Manitoba and the other three were in Saskatchewan.

An arrangement between United Grain Growers and Nickerson American Plant Breeders (NAPB) of the United States allowed for a reasonably sized field testing program of wheat varieties. All these plots were seeded at the Rosebank station.

An agreement between United Grain Growers and Weibulls of Sweden provided for a number of varieties of barley to be field tested as well.



Herschel, Sask. elevator was upgraded and re-sited. Inset: Local Board Chairman Allan Coulter.

Charter and Capital Stock

United Grain Growers Limited was incorporated in 1906 under a Manitoba Charter and reincorporated in 1911 under an Act of Parliament of Canada. This Act, with amendments on eight different occasions, is the Company Charter today.

Authorized capital consists of \$45 million made up of 2,200,000 Class "A" shares with a par value of \$20.00 each and 200,000 Class "B" (Membership) shares with a par value of \$5.00 each. Class "A" shares are non-voting, non-cumulative preferred, callable in whole or in part at \$24.00 per share. They rank pari passu with Class "B" shares upon the wind up of the company. Class "A" shares carry a dividend preference of 5% per annum to the extent earned before any other dividend is paid.

Under a Charter amendment in 1984, over and above the 5% preferred dividend on Class "A" shares, additional

dividends on Class "A" shares may be declared at the rate of 1/2 per cent per annum up to a maximum of 5% out of profits available for dividends, provided dividends for Class "B" membership shares for the same year are declared at not less than the total rate for Class "A" shares. Dividends totalling 7% were paid on Class "A" shares in 1987. Anyone may hold Class "A" shares but no one person may hold more than 15,000 shares.

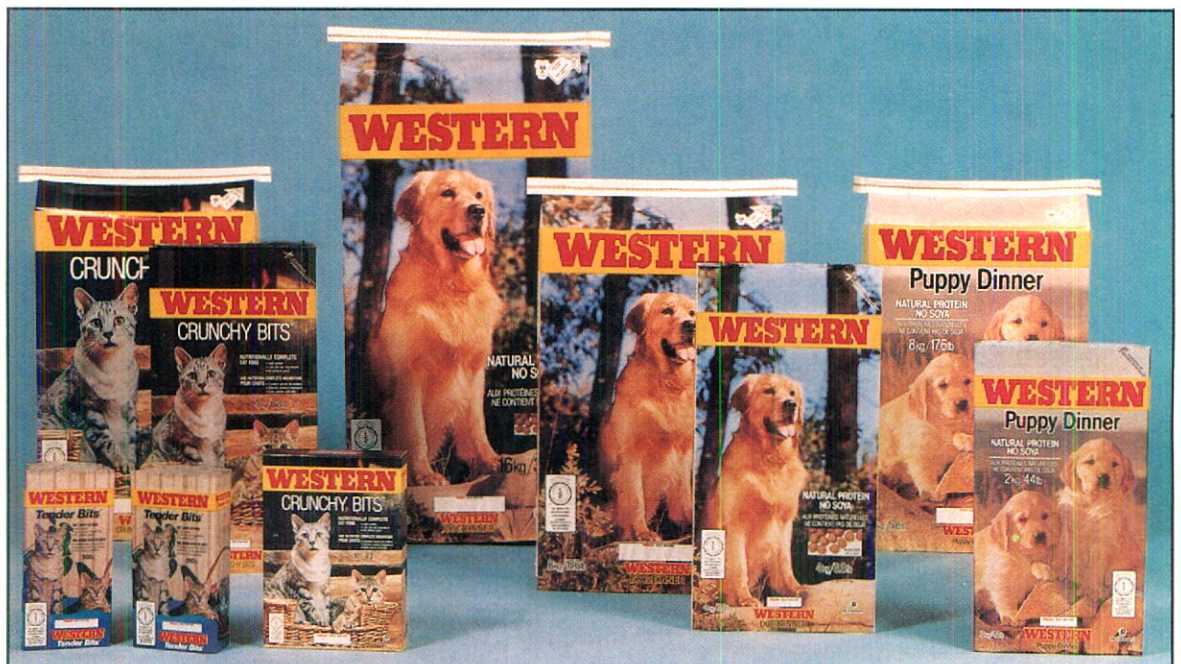
While no voting rights attach to Class "A" shares, most holders have voting rights through owning Class "B" shares.

The issue and transfer of Class "B" membership shares is subject to approval of the board of directors, in order to limit these shares to Western Canadian farmers. No more than 25 shares may be held by one person. They may be purchased and reissued by the company provided that no more

than 10 per cent of the shares outstanding are held at any one time by the company.

Holders of Class "B" shares are organized into 281 shareholder Locals, in which each member casts one vote. Each Local elects a delegate to annual and general meetings. The expenses of delegates who attend these meetings are paid by the company. Control of the company by its farmer members is exercised by this delegate system. Delegates and directors must hold a Class "B" share and have an investment of not less than \$25 in shares in the company.

The company board consists of 12 directors, 4 of whom are elected each year for a 3-year term. By-laws of the company require 3 directors in Manitoba, 4 in Saskatchewan, 4 in Alberta south of the Peace River District and 1 in either the Alberta or British Columbia area of the Peace River District.



A variety of Western Pet Foods is available in an unique new package with "Fresh, Best Before . . ." dating system label.

APPENDIX 1

Cost and Returns Dictate Elevator Construction

One of the most difficult decisions facing United Grain Growers is the evaluation of elevator investments.

Often, an older elevator that returns a small profit or loss each year, reaches a point where it can no longer be operated effectively or safely due to age. In many cases, the elevator has remained viable only because of its low depreciation expense.

The preferred alternative to closing the elevator is to undertake a major upgrade. In this way, the elevator is

returned to an efficient level of operation.

However, many elevators are beyond repair or are constrained in ways, such as car spot size, that even their upgraded capacity is limited. The only alternative to closure, then, becomes construction of a new elevator. The high capital costs associated with new facilities mean that a high level of throughput and farm supply sales are required to pay back the investment.

The following table illustrates

typical revenue/expense profiles for each alternative. The proposals are based on a 3,500-tonne storage capacity unit, with average depreciation over 25 years and 11% interest rate.

The key, from an investment point of view, is the "Net Present Value" calculation in the right-hand column. If the Net Present Value of Cash Flow is positive, it means that interest and investment costs are being recovered and the elevator is generating positive cash flow to help cover total elevator system administration expenses.

1986-87 Annual Revenue/Expense Profile of Country Elevator Investments

Volume (tonnes)	Revenue	Expenses			Profit (loss)	NPV of Cash Flow
		Operating	Fixed	Admin.		
Major Upgrade (\$600,000)						
10,000	\$162,745	\$ 70,733	\$ 55,441	\$ 32,722	\$ 3,850	\$ 329,252
20,000	\$277,452	\$128,796	\$ 55,441	\$ 65,444	\$ 27,771	\$1,276,662
30,000	\$392,159	\$179,884	\$ 55,441	\$ 98,166	\$ 58,667	\$2,340,735
40,000	\$506,865	\$223,998	\$ 55,441	\$130,887	\$ 96,539	\$3,521,471
50,000	\$621,572	\$260,389	\$ 55,441	\$163,609	\$142,133	\$4,831,372
New Elevator (\$1,388,000)						
10,000	\$162,745	\$ 70,733	\$125,825	\$ 32,722	(\$ 66,534)	(\$1,226,304)
20,000	\$277,452	\$128,796	\$125,825	\$ 65,444	(\$ 42,612)	(\$ 278,893)
30,000	\$392,159	\$179,884	\$125,825	\$ 98,166	(\$ 11,716)	\$ 785,180
40,000	\$506,865	\$223,998	\$125,825	\$130,887	\$ 26,156	\$1,965,916
50,000	\$621,572	\$260,389	\$125,825	\$163,609	\$ 71,749	\$3,275,816

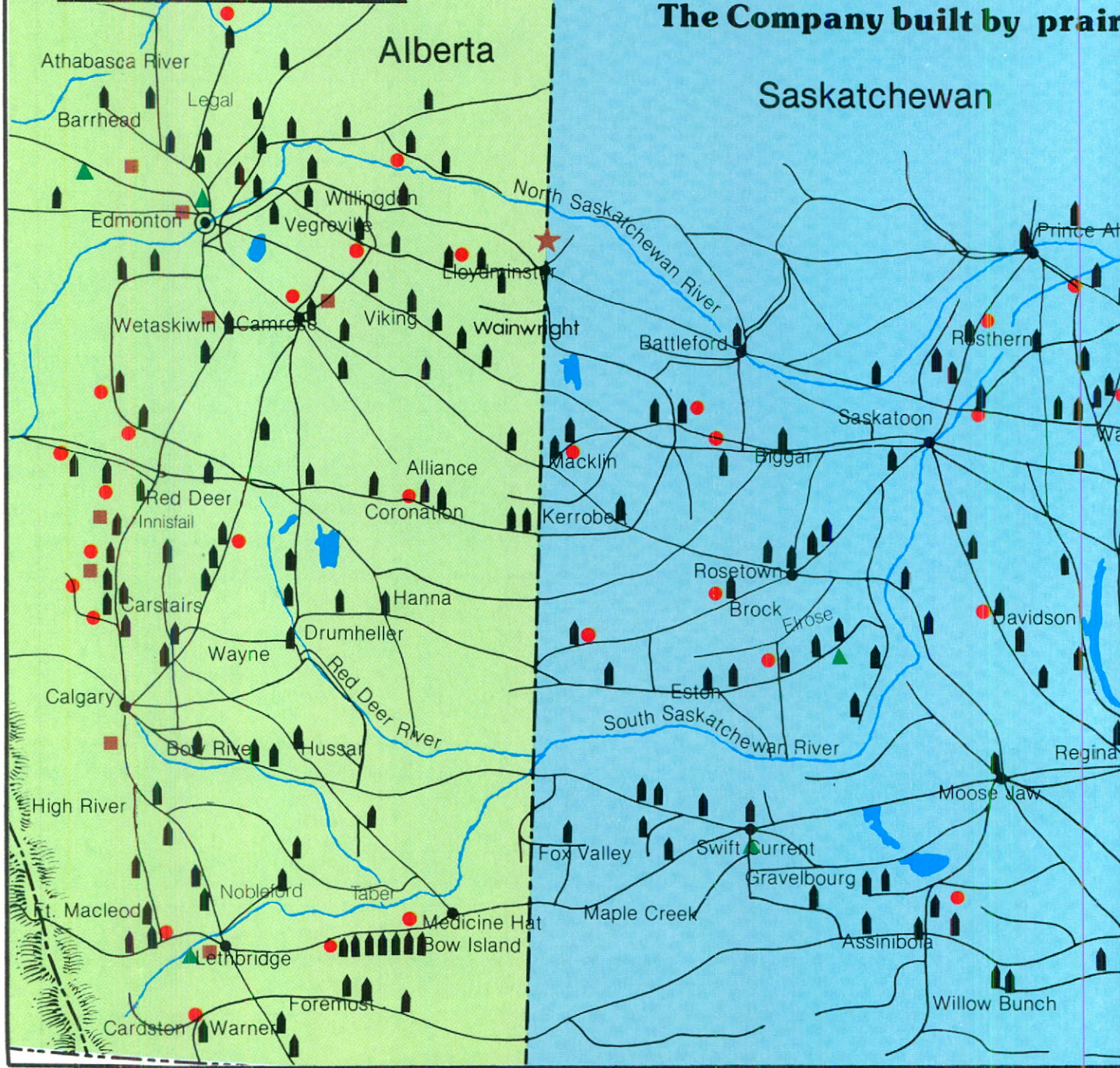
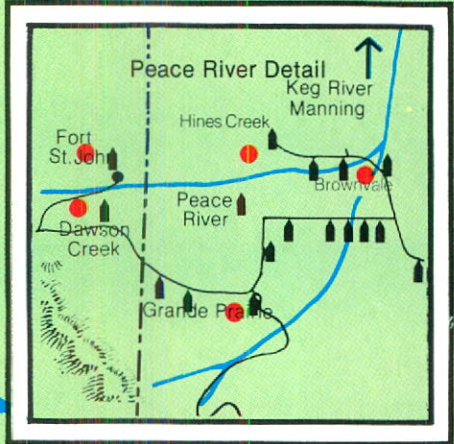
APPENDIX 2
Ten-Year Comparative Summary

	1987	1986	1985
Financial			
Operating Revenues	\$124,277	\$125,319	\$124,760
Earnings before patronage dividends and income taxes	6,809	10,108	11,170
Net earnings	2,744	2,088	2,340
Working capital	48,839	46,064	42,109
Capital expenditures	12,826	11,019	16,167
Total investment in fixed assets	234,059	223,519	214,051
Accumulated depreciation on fixed assets	103,056	93,603	84,500
Paid up share capital	24,468	24,425	23,542
Shareholders' equity	95,714	94,640	93,317
Cumulative total of shareholders' dividends	26,861	25,177	23,440
Cumulative total of patronage dividends including interest thereon	89,949	88,668	87,279
Statistical			
Country handling — in thousands of tonnes	5,041	4,868	3,945
Elevator licensed storage capacities — in thousands of tonnes			
Country	1,256	1,296	1,336
Terminal	424	424	424
Number of country elevator manager units	309	326	345
Number of employees	1,641	1,768	1,770
Number of shareholders	92,917	94,544	96,593
Number of shareholders' locals	281	284	289

1984	1983	1982	1981	1980	1979	1978
(000's)						
\$139,548	\$122,193	\$117,403	\$101,734	\$102,846	\$78,385	\$69,629
27,883	20,902	16,905	10,008	18,968	8,989	7,068
10,137	8,346	4,535	7,603	9,195	6,367	3,025
39,790	30,747	30,079	28,136	30,678	18,460	24,473
18,916	19,505	15,141	16,565	11,656	18,119	15,100
198,505	183,043	165,716	152,392	138,054	128,450	111,211
75,813	69,061	63,364	57,354	52,039	46,757	42,680
21,567	19,745	18,640	17,320	14,930	13,661	12,538
90,511	79,933	71,786	67,142	58,197	48,690	42,016
21,961	20,609	19,335	18,035	17,019	16,092	15,303
82,151	71,385	62,587	58,082	55,675	48,546	46,214
4,908	5,283	4,646	4,256	4,235	3,612	4,170
1,352	1,385	1,440	1,507	1,552	1,639	1,666
424	424	424	424	424	424	424
344	345	347	359	381	402	420
2,025	2,070	1,951	2,028	1,907	1,908	1,816
95,957	94,003	94,460	93,528	90,053	92,892	87,015
287	288	288	291	294	299	306



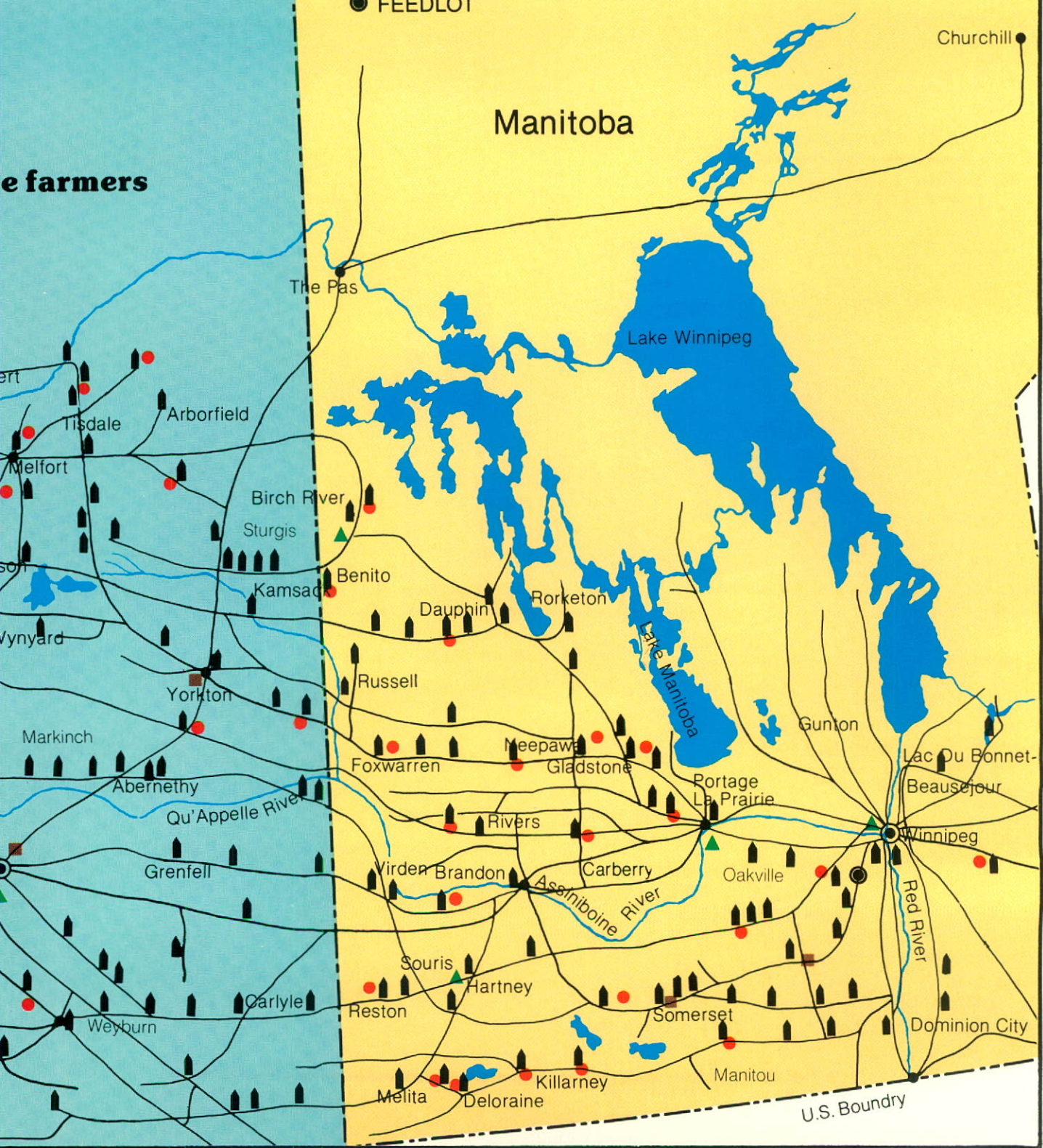
The Company built by prairie



the farmers

- 🏠 ELEVATOR
- 🏭 FEED MILL
- ANHYDROUS AMMONIA AND BULK FERTILIZER PLANT
- ▲ SEED PLANT
- ★ CRUSHING PLANT
- FEEDLOT

Manitoba



Churchill

Lake Winnipeg

Lake Manitoba

U.S. Boundry

Plan a Low-Cost Weed Control Program for 1988

by M. Goodwin

Because of the current economic crisis in agriculture, farmers are being forced to look long and hard at cutting costs — and weed control is no exception.

Herbicide prices have remained at 1980's levels, while commodity prices have fallen drastically. As a result, the idea of weed control just for the sake of weed control is a thing of the past.

Fair crop prices used to make it easy to get a \$2 or \$3 yield increase for every \$1 spent on weed control chemicals. Today, unfortunately, this is not the case. The balance has shifted to the point where every weed spraying job does not necessarily pay.

Take wild oat control as an example. Farmers in 1980 needed only two bushels of wheat per acre to pay for wild oat herbicide. In 1987, farmers needed five bushels per acre. Figure 1 illustrates the situation.

Today, 19 to 22 per cent of operating costs are eaten up by herbicides. Farmers are competing with their U.S. and European counterparts who buy the same chemical they do. The difference is that the competition receives heavy government subsidies.

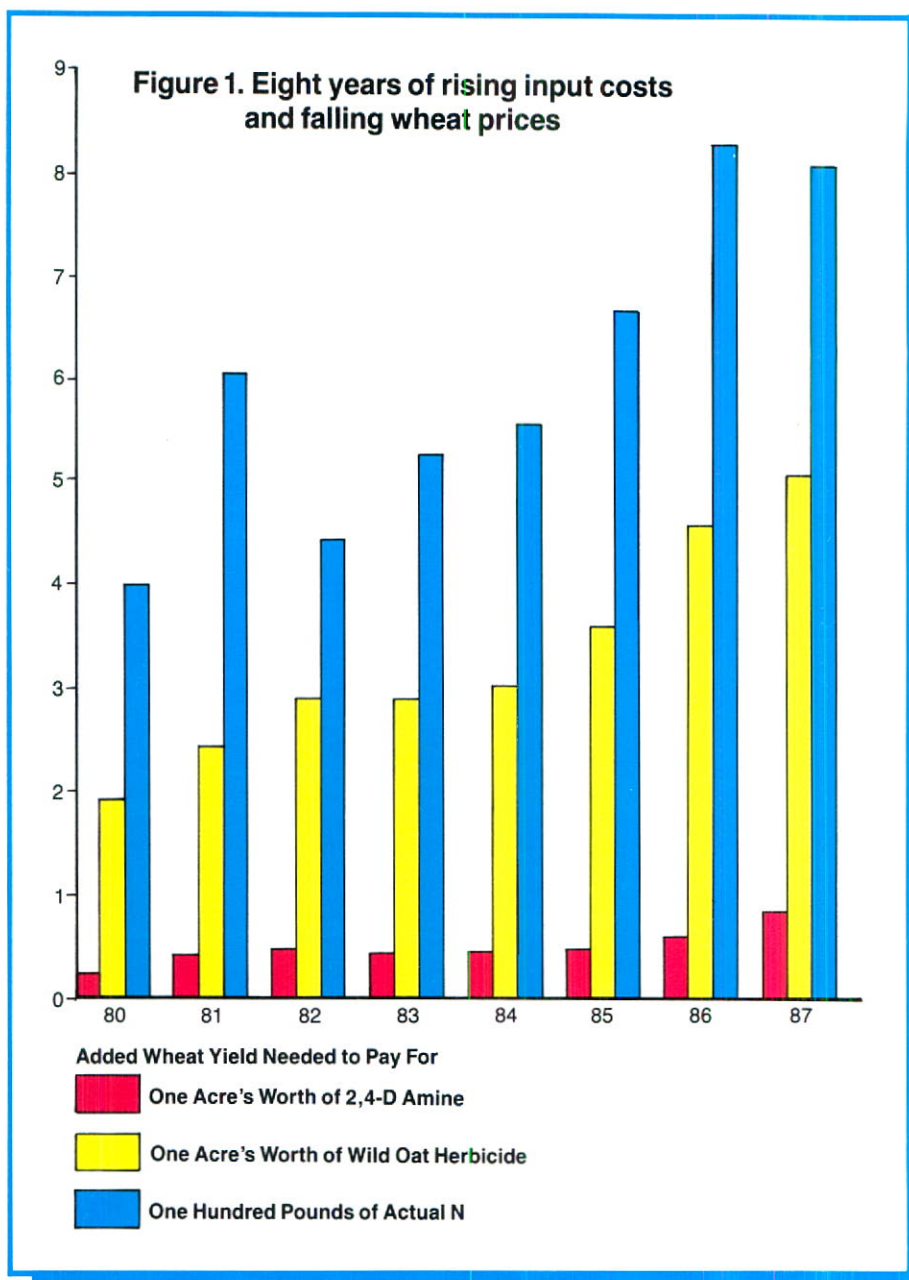
One of the key questions farmers should be asking themselves in 1988 is: "How can I cut herbicide costs?"

It's a tough question to answer, especially in view of the fact that many fields were weedy in 1987. As a result, increased seed levels will mean even more weeds in the coming growing season. However, it's a question that farmers should consider carefully.

Review Non-Chemical Weed Control

The first thing to do is look at controlling weed problems without the use of chemicals. There are several steps farmers can take in order to reduce weeds without even touching a sprayer. These include:

- Use only certified seed because it is low in weed seed content. The extra cost involved is worth it because it will prevent the introduction of new weed species into a field.



- Keep field borders and headlands clean. Controlling a patch of Canada thistle on the edge of a field now will prevent a major spraying job, and a major cost two or three years down the road. This will be more of a concern as highways departments cut weed control budgets on roadsides.
- Avoid delayed seeding. If weeds such as wild oats are allowed to grow, and then cultivated under, crop yields will be lower due to

delayed seeding. Losses could be as much as six bushels or \$15.60 an acre. Figure 2 shows how delayed seeding can affect the yields of wheat, barley, flax and canola.

Plan Crop Rotations to Match Weeds

Most major weed control errors are made with a seeder and not a sprayer. It's easy to be lulled into the trap of thinking that because there are 110-

Figure 2. Delayed Seeding Can Cost More Than Herbicides

Crop	Seed Date (Week of)	Loss	
		% of Yield Lost ¹	\$/Acre Lost ²
Wheat	May 21	8	6.25
	May 28	13	10.14
	June 4	20	15.60
	June 11	36	28.08
Barley	May 21	8	4.24
	May 28	11	6.05
	June 4	19	10.45
	June 11	29	15.95
Flax	May 21	4	2.88
	May 28	7	5.04
	June 4	20	14.40
	June 11	30	21.60
Canola	May 21	0	0
	May 28	7	7.30
	June 4	19	19.86
	June 11	37	38.67

¹Versus May 7 seeding date (Manitoba Crop Insurance Corporation)

²Dollar figures based on 5 year average yields (Manitoba) at 1987 prices

plus herbicides available, seeding can be done now and spraying later. Often, there isn't a herbicide for a specific crop/weed situation. This is the weakest link in a farmer's weed control efforts.

For example, say a farmer has a heavy population of mustard. A bad rotation choice would be to plant sunflowers, and then use Amiben to control the mustard. The cost would be \$25 an acre. However, if cereal was planted, and 2,4-D used to control the mustard, the cost would only be \$1 per acre!

Another bad choice would be planting lentils on a Canada thistle populated field. There is no chemical to control Canada thistle in lentils, and the loss would be an estimated 80 to 100 per cent of the crop. This means \$95 to \$120 an acre. On the other hand, if that field was seeded with canola, and Lontrel was used to control the thistle, the cost would be \$25 to \$30 an acre.

A third example is planting wheat on a field that is heavily populated with quackgrass. The loss would be 50 per cent of the yield or more, at a cost of \$40-plus an acre. However, if flax was

planted, and Poast or Fusilade used, the cost would only be \$25 an acre.

Evaluate the Need for Spraying

Farmers who spray for wild oats might consider eliminating a treatment this year or only spraying the worst part of the field, if the field was clean last year. If the field contained high amounts of wild oats last year, this is not an option.

Figure 3 shows the predicted wheat yield for different densities of wild oats. It

should be noted that with returns of \$2.60 for a bushel of wheat, it takes six wild oat plants per square yard to warrant spraying. If there are less plants per square yard, the field should not be sprayed.

It should be noted that eliminating spraying is only an option on wild oats. To date, this is the only weed that we have enough data on to safely suggest skipping a year of spraying under the right circumstances.

Spraying for broadleaf weeds should be routinely done. It takes only a one-bushel-per-acre increase to pay for 2,4-D. This is an expense that doesn't warrant a gamble. The cost of using 2,4-D has hardly increased in the past decade.

Select Cheaper Weed Control

By substituting less expensive chemicals for more expensive ones in certain situations, farmers can save on their herbicide costs.

For example, a farmer can ignore low amounts of buckwheat, cow cockle, smartweed and other 2,4-D resistant weeds in a cereal field — and spray with 2,4-D for less than \$3 an acre.

For a canola crop, trifluralin, at \$7 an acre, is half the cost of Poast or Fusilade. Although trifluralin is weaker on wild oats, it will control broadleaf weeds, something that Poast and Fusilade will not do.

For flax, bromoxynil/MCPA will likely be required if there is smartweed, buckwheat or other broadleaf weeds. However, costs can be shaved on grass-

Figure 3. When Does It Pay to Spray Wild Oats?

Wild Oat Density (#/Sq. Yard)	Predicted Wheat Yield Loss ¹	
	(% Loss)	(\$/acre)
1	4-12	3.00- 9.36
2	6-14	4.68-10.92
3	7-15	5.50-11.70
6	10-18	7.80-14.04
9	12-20	9.40-15.60
18	17-44	13.26-34.32

¹Wheat yields of 30 bushels per acre.

killer. By selecting the right product, up to \$12 an acre can be saved. For example, Poast costs \$9 an acre to control green foxtail, while Fusilade costs \$21 an acre. Conversely, Fusilade costs \$11 an acre for volunteer wheat, while Poast costs \$16 an acre.

Figure 4 shows several cost-saving choices.

A Necessary Choice

If Canadian farmers are going to weather the current economic downturn, they will have to be twice as careful as never before in choosing chemicals. The "weed-free farm" will have to be compromised — at least a little bit. Cost-free managerial decisions such as crop rotation and cultural control will have to become even more a part of life than they already are.

There are definite risks involved in this approach. Not spraying a field that should have been sprayed will result in losses far exceeding the price of a few

Figure 4. Choice of Chemical Can Save You up to \$12/Acre

Wheat field with mustard. Hardly any buckwheat, smartweed or cockle species.	Sprayed 2,4-D Results: Excellent Cost: \$1/acre	Sprayed bromoxynil + MCPA Results: Excellent Cost: \$4.70/acre
Flax field with heavy foxtail population and wild oats.	Sprayed Poast Results: Excellent Cost: \$9/acre	Sprayed Fusilade Results: Fair Cost: \$21/acre
Canola with volunteer cereals.	Sprayed Fusilade Results: Excellent Cost: \$11/acre	Sprayed Poast Power Pack Results: Excellent Cost: \$16/acre
Canola with mixed broadleaf and annual grasses.	Sprayed with trifluralin Results: Good but a few wild oats got away. Cost: \$7/acre	Sprayed Poast Results: Excellent grass control but broadleaf weeds took over. Cost: \$16/acre

cases of chemical. But if farmers are to attain profitability in their fields, tough decisions must be made.

Mark Goodwin is a weed specialist with Manitoba Agriculture.



To control herbicide costs, various companies are testing sprayers filled with shields for drift control, and with computers to apply herbicides at low rate and direct injection.

Plan Fertilizer Use for Maximum Profit

BY J.L. Henry

With wheat slugging along at \$2.50 a bushel, farmers don't need any university professor to tell them their fertilizer program needs examination. However, let's have a look at how you might go about it and how you select the priorities in order to maintain a profit from the overall farm operation even in tough times. Fertilizer use can play a very important role in maintaining farm profitability. But under the worst case scenario, it can also contribute to debt loads.

The big one

No matter how the pie is sliced, nitrogen is still the big one. It is the big one in terms of its potential impact on gross farm yield and, hence, profitability. It is also the big one in terms of the dollars that you must lay out.

First of all, let's have a look at how the change in economic circumstances actually affects the profitability from fertilizer use. Table 1 boils it down to a few simple numbers that tell the story at a glance.

For this example, I have selected the expected yield increases as used by the Saskatchewan Soil Testing Laboratory for wheat in the Black Soil zone with a soil test of 20 lbs of nitrogen in the top 2 feet. With wheat at \$5 per bushel and nitrogen at 30¢ per pound, profit from fertilizer use rises rapidly with rates up to about 50 to 60 pounds per acre and doesn't do much after that.

Not much surprise then that farmers had seen this happen in their fields and pocketbooks and were buying fertilizer with abandon. Fertilizer producers were presenting their annual sales figures on a bigger sheet of graph paper every year.

When we come down to today's reality of \$2.50 wheat and leave the price of nitrogen at 30¢ per pound, there is still a buck to be made from fertilizer use, but the profitability is at least cut in half. When we come to an even more realistic situation and set the wheat price at \$2.50 per bushel and bring the nitrogen

Table 1. Nitrogen Rates and Profits for a Black Soil with 20 lbs N/acre Soil Test (2 feet)

N rate lbs/acre	Profit from nitrogen use (\$/acre)		
	A Wheat \$5/bus N\$.30/lb	B Wheat \$2.50/bus N\$.30/lb	C Wheat \$2.50/bus N\$.20/lb
10	14	6	7
20	27	11	13
30	38	15	18
40	48	18	22
50	56	21	25
60	62	22	28
70	66	23	29
80	69	23	30
100	70	20	30

price down to 20¢ per pound, we see there is some increase in the profitability but it does not compare with the former economic situation.

In putting together the above table, I have rounded everything off to the nearest dollar per acre and have simply calculated the profit from fertilizer use as the difference between the money obtained from the additional wheat produced and the cost to buy the fertilizer. In a strict economic sense, one should determine the marginal return from the additional grain produced and the marginal cost of the fertilizer bought, and find the ratio of those two numbers. That is a nice economic concept and quite correct, but my experience has been that most people don't understand it. I expect that when faced with the kind of numbers presented in Table 1, farmers have no difficulty in deciding what to do.

This might lead you to the conclusion that you simply cut fertilizer use indiscriminately and across the board, and this will provide the most profitability.

Not likely!

The objectives should be to examine the entire fertilizer program, try to find out which of the fertilizer dollars are providing the biggest bang, stick with those and, perhaps, leave some of the others slide for a while.

The key to making these kinds of decisions rests in having an ongoing and rather completely thought-out soil

testing program. A meaningful soil testing program is one that provides a soil test result on at least a third or a half of your fields each year. They will provide a long-term record that will allow you to determine what changes are taking place over time and to make adjustments in fertilizer use on that basis.

For example, I recently talked to a dealer who had sampled 10 fields for a farmer. These fields were ones that had been sampled consistently in the past and for which he had been applying anywhere from 50 to 100 lbs of N per acre per year on an annual basis for many years. The rather comprehensive soil testing program of this year showed considerable residual nitrogen. This result will allow him to reduce the nitrogen fertilizer bill by a substantial margin without much concern that yields will greatly suffer.

If you attempt to make such a decision on the basis of sampling "one or two fields" and basing the rest of the farm on that number, then problems can result.

If you are contemplating that type of soil sampling program, I would suggest you simply carry on as you have in the past, arbitrarily reduce your inputs by a third or base your decision on general recommendations or some other source of information. A single soil test can be worse than useless.

The facts of the matter in soil testing are that with the number of cores that

are usually taken and the methods that are usually used, the value obtained is probably within about 20 per cent of the true average value of the soil test for that field. Therefore, if you want to do a soil test in order to save yourself 5 or 10 pounds of nitrogen per acre, you might just as well arbitrarily cut the fertilizer bill and save your time and money all around.

The considerations of placement of nitrogen have received enough attention that I think they need little more than reinforcement here. Banding fertilizer rather than broadcasting has increased the efficiency and hence profitability in many situations.

The big increase from banding comes from situations when the soil is well supplied with reserve moisture and the early growing season rain is minimal. In these situation, the banded nitrogen allows the crop to root down and use the moisture, and the nitrogen is in a zone that will have moisture so it can be utilized.

Under situations when early spring rains come, and the moisture is uniformly distributed and adequate throughout the season, there is often very little difference in yield between banded and broadcast nitrogen. However, we have seen enough years with dry spring and early summer growing seasons, even in the Parkland belt, that banding has become a rather common practice.

We probably don't need to say much about the effect of moisture conditions on the response and profitability. You have heard me sing that song so many times you probably are sick of it by now. However, let's repeat it once more. All the nitrogen in the world won't do you much good if you don't have the moisture to go along with it. On the other hand, when the soil nitrogen level is low, all the water in the world won't do you much good unless the nitrogen fertilizer is up to par to make use of the available moisture supply.

And also ran

And from a fundamental soil fertility point of view, even the most miniscule of micronutrients like molybdenum is just

as important as the largest of the macronutrients — even the big one. However, when we set the theoretics aside and get down to hard-nosed farm planning, some of the rest can receive considerably less attention.

On most farms in Western Canada, micronutrients are no big issue. Some micronutrient problems have been identified, and in those few selected areas, farmers have programs in place to take care of the problems.

Sulphur is one that shouldn't be forgotten in the Parkland belt and particularly with canola. Sulphur is not a big one in terms of the bucks you have to lay out to buy it, because you don't need to use high rates. However, it can be a big one when it comes to the impact on profitability. More than once, we have seen canola yields drastically reduced because of the lack of sulphur in a fertilizer program. So, do not ignore a sulphur recommendation for canola in the Parkland belt. In the Palliser Triangle, the situation on the sulphur is a little less clear. Some low tests have been obtained in the past few years, but I am not yet aware of any significant example of sulphur response in those areas.

Potassium use can be easily and accurately determined by a soil test. This is contrary to some of the literature you read. But, in terms of making the kinds of decisions you have to make now, it is my firm belief that a soil test will do a very good job in telling you whether you need to consider potassium in your fertilizer program. Some recent research has shown that in some cases where unexpected response is obtained, it may be due to the fact that our good Saskatchewan potash contains chloride as well as potassium and this chloride can have an impact on reducing the severity of certain plant diseases. However, in most cases, this is a shot in the dark and

in trying to maintain a profitable fertilizer use program, no great harm will come from leaving out our good Saskatchewan potash.

Phosphorus has been around us for so long, we wonder why we should even mention it. Phosphorus use on many farms has become nearly an extension of nitrogen use.

In areas where significant (30 to 40 P_2O_5 /acre) rates have been used on a continuing basis for many years, it is likely the phosphorus levels are built up to a point where rates can either be reduced or, in some situations, phosphorus use can be curtailed altogether for a year or two. Although not a part of the official recommendation systems yet, there seems to be growing evidence to suggest that phosphorus use on stubble land is less likely to give a good response than on land that has been summerfallowed.

The fact remains that there are many farm situations where a reduction in the phosphate rate will have no great impact on yield at the end of the year. Most people that make fertilizer recommendations are somewhat hesitant to recommend that you leave it out altogether because, in some situations, in some years there can be a rather dramatic effect from a rather small investment. These situations are under low phosphorus soil tests, usually where there is little history of previous phosphorus use and where very cool conditions persist long into the seeding season.

So, these few tips on planning a fertilizer program try to maximize profit in times when obtaining a profit of any kind is a challenge.

Good luck with crop planning for 1988. □

Les Henry is with the Department of Soil Science, University of Saskatchewan, Saskatoon.

Preliminary Review: Canada-U.S. Free Trade Agreement

Canada and the United States have agreed to enter into a comprehensive agreement covering all aspects of their multi-billion dollar trading relationship.

The agreement will come into force on January 1, 1989. Over a ten-year period tariffs will be eliminated, restrictions affecting bilateral trade will be removed and many other measures will be taken to facilitate and expand trade between the two nations.

This summarizes the proposed agreement covering agricultural products. The information is taken out of the preliminary transcript covering the free trade agreement.

Objectives

The objectives of this Agreement are to:

- eliminate barriers to trade in goods and services between Canada and the U.S.;
- facilitate conditions of fair competition within the Free Trade Area;
- expand liberalization of conditions for investment within the Free Trade Area;
- establish effective procedures for the joint administration of the Agreement and the resolution of disputes;
- lay the foundation for further bilateral and multilateral cooperation to expand and enhance the benefits of the Agreement.

Tariffs

The United States and Canada agree that all bilateral tariffs on goods meeting the rules of origin will be eliminated. All dutiable products are assigned by mutual agreement to one of the following staging categories for duty elimination: a) immediate duty elimination; b) duty elimination in five equal annual stages; or c) duty elimination in ten equal annual stages.

The United States and Canada agree that the initial stage of reduction shall become effective January 1, 1989, for all products, except that for specialty steel items the initial stage of reduction shall become effective October 1, 1989.

Both Parties agree that goods meeting the rules of origin and for which the

existing tariff rate, as defined in the agreement, is free shall remain free, with a limited number of agreed exceptions.

The United States and Canada agree that reductions in rates of duty shall be rounded down to the next lower 0.1 per cent, or 0.1 cent as the case may be for virtually all products.

The United States and Canada agree that the staged elimination of the duty established in the Agreement for any product may be accelerated upon mutual agreement by Canada and the United States on such acceleration for the particular product.

Agriculture

Canada and the United States have agreed to eliminate all agricultural tariffs within 10 years. With respect to fresh fruits and vegetables, a conditional snapback to the MFN* rate of duty would be allowed for 20 years.

The United States has agreed to exempt from quantitative restrictions imports from Canada of sweetener-containing products having 10 per cent or less sweetener by dry weight.

Canada has agreed to eliminate import licenses for wheat, barley, oats and products, as soon as the support levels for these products in both countries are equivalent, determined on the basis of a technical calculation. For oats and barley, this would likely be upon entry into force of the Agreement.

The Parties have agreed not to impose or reimpose any quantitative restrictions on grain and grain products so long as there are no significant changes in the grain support programs in each country that would lead to a significant change in imports from the other Party.

Canada has agreed to eliminate its Western Grain Transportation Act subsidies on agricultural products shipped

to the United States through Western Canadian ports. This will affect primarily Canadian exports of millfeeds and rapeseed meal to the U.S. Pacific Northwest.

Canada has agreed to increase its global import quotas for poultry, eggs and products to the annual average level of actual shipments during the past five years.

The Parties have agreed to exempt each other from import restrictions imposed under their respective meat import laws.

The Parties have agreed not to use direct export subsidies on agricultural products shipped to each other.

Each Party has agreed to take into account the export interests of the other Party in the use of any export subsidy on agricultural goods exported to third countries, recognizing that such subsidies may have prejudicial effects on the export interests of the other Party.

The Parties have agreed that their primary goal with respect to agricultural subsidies is to achieve, on a global basis, the elimination of all subsidies which distort agricultural trade and agree to work together to achieve this goal, including through multilateral trade negotiations such as the Uruguay Round.

The Parties have agreed to minimize technical barriers on agricultural, food and beverage goods. This involves both countries' regulatory authorities cooperating to reduce technical differences which interfere with trade, while still protecting human, animal and plant health.

The Parties have agreed to consult semi-annually on agricultural issues. The Parties have also agreed to consult on agricultural issues at such other times as mutually agreed.

The Parties retain the GATT rights with respect to issues not otherwise provided for in this Agreement.

Source: Preliminary Transcript Canada-U.S. Free Trade Agreement: Elements of the Agreement — Trade: Securing Canada's Future — Government of Canada.

* MFN — Most-favored nation treatment.

Many farmers now band UGG fertilizer while they seed. Right: The amount and type of fertilizer they use is determined by a soil test. Here soil samples are taken with a pickup-mounted soil sampler.



Can long-term wheat prices signal when to buy land?

Long-term trends in monthly Chicago wheat prices have, in the past, been a good indicator of when to buy farmland. The way the charts read in 1987, buying farmland in the next year or so might turn out to be a good move.

Historically, the lowest-cost time to buy farmland is a few years before a commodity price recovery. If the only information you used to trigger your land-buying decision was a chart of monthly Chicago wheat prices dating back to 1912, you would have bought land in:

- 1913, when wheat fell to 87¢ a bushel;
- 1932, when wheat was making an 18.6-year cycle low;
- 1969, when wheat was again making an 18.6-year cycle low before its massive breakout above \$6 a bushel in the early 1970s.

But recently, Dr. Louis Thompson, professor emeritus at Iowa University, published a study which correlated moon cycles to Chicago wheat prices.

The low grain prices marked in Chart 1 are also the ending years of two moon cycles. One is a 9.3-year cycle, which is the time it takes for the moon's orbit to shift from maximum to minimum decli-

nation with respect to the earth's equator. A full cycle, from maximum orbital angle and back, thus takes 18.6 years.

There is no need to ponder some cause-effect relationship between these two events. Just remember, the association between wheat price cycles and the moon's 9.3- and 18.6-year cycles.

Chart 1 also shows three long-term wheat price cycles as "descending triangle" formations.

In such a formation, prices tend to wriggle into a tighter range, then break out above the resistance line.

These prices are not adjusted for inflation. Inflation may move wheat into different price ranges, but it doesn't dampen its tendency to run in cycles. And maybe wheat price inflation isn't all that bad. Wheat averaged \$2.95 a bushel in 1866. How many things are selling for less today than they did 121 years ago?

In the first descending triangle, wheat climbed into a \$1 to \$2 range for almost 18 years. It broke above this range during World War I. Then it fell below the \$1 support level for a full 9.3-year cycle, making its lows near the end of the 9.3-year lunar cycle in 1941.

Then World War II propelled wheat into a new \$2 to \$3 price range, contained in the second descending triangle formation. Keep in mind it took almost eight years to climb into that "new world."

Wheat prices made another 18.6-year sideways run in this \$2 to \$3 range. Support under this level finally broke down in 1963.

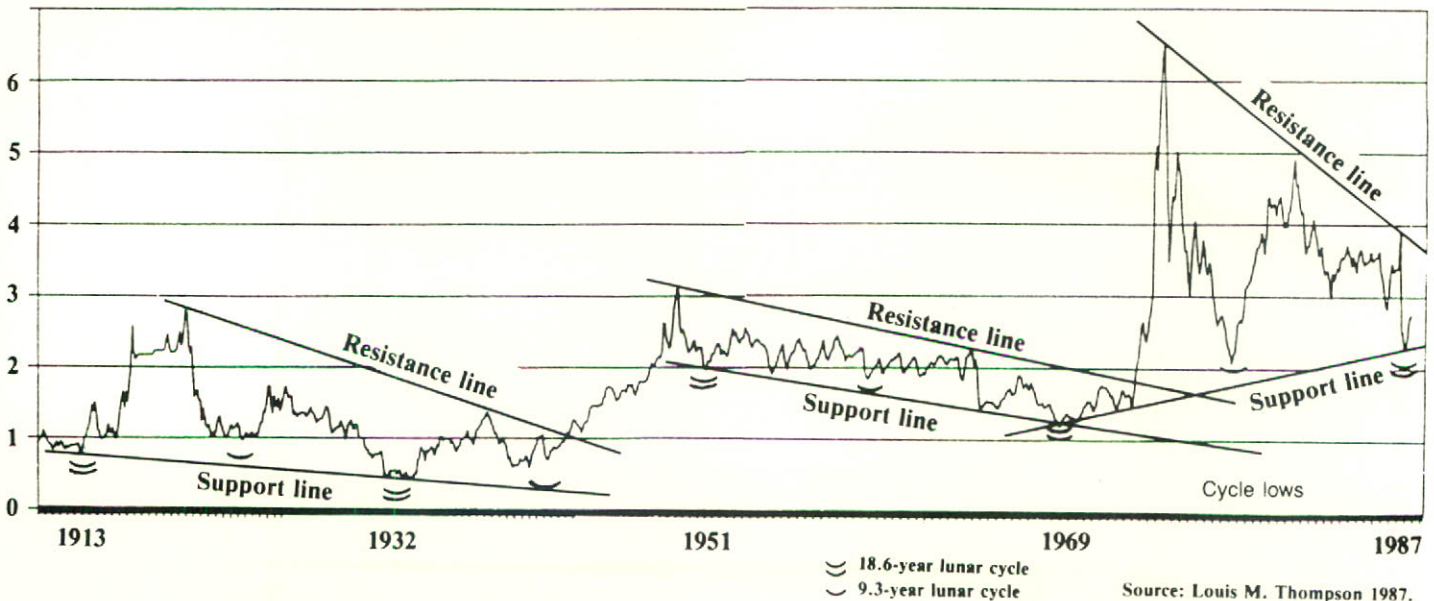
The 18.6-year lunar cycle coincided with wheat's low in 1913, 1932, 1951 and 1969. The second descending triangle formation ended in 1972 when wheat prices rose above the second triangle's overhead resistance line. It soared into a new world of floating currencies and global commodity "shortages."

Once more, prices settled into a third descending triangle. This one is again \$1 higher than the previous one. Most of Chicago wheat's trading during the past 15 years has remained within a \$3 to \$4 range.

Like most technical analyses, all of this can be described with almost mechanical neatness — until you ask, "So what happens next?"

"While wheat prices are headed down to test the 1986 lows, I believe higher corn and soybean prices will

Chart 1 — Monthly Chicago Wheat Prices



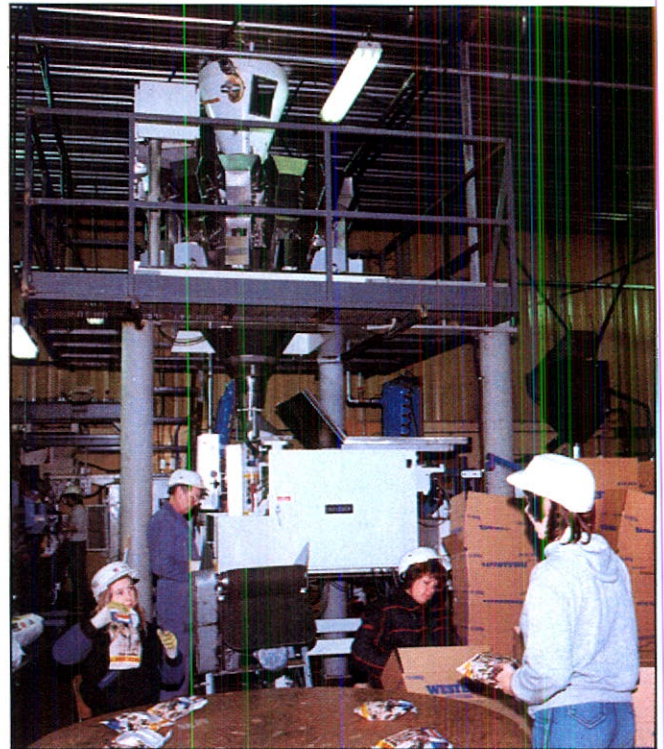
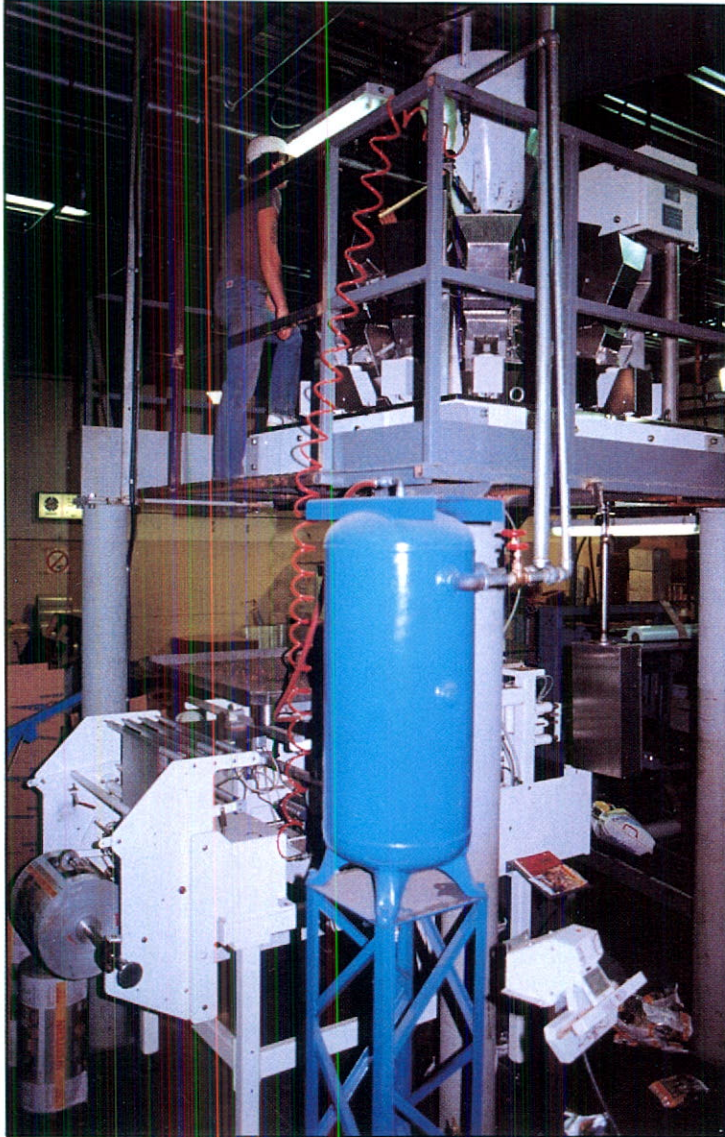
prevent wheat prices from going as low as they did in 1986. The upward slant of the support line after 1969 suggest that the low of this cycle has been reached," says Thompson.

The most probable price pattern from here on, based on past performances, is for wheat prices to climb toward the

resistance line of the current descending triangle. The previous two breakouts took 4 to 10 years. Even though cash wheat is only \$2.50 to \$2.70 at Midwest points, the past 20 years have been so volatile that the next breakout probably won't take as long.

Says Thompson, "It is now time to buy land."

This article first appeared in the *Landowner*, a U.S. farm publication. It's based on U.S. statistics, but the trends in Chicago wheat prices and farmland prices on the Prairies showed remarkable correlation over the past 70 years.



Left — The Hayssen form-fill-seal bagging machine installed at the Pet Food plant can produce four sizes of bags ranging in size from 500 grams to 8 kg. Its capacity is 80-500 gram bags a minute. The distributor above the Hayssen bagger consists of a circle of 14 buckets and scales which feed the pet food to the bags in perfect accuracy. Top — The pet food is boxed ready for shipment.

Top Ten Farm Supply Awards

ALBERTA FERTILIZER SALES

D. G. Sisson	Castor
B. A. Thomas	Cardston
J. A. Avramenko	Huxley
W. J. Rawleigh	Ft. Macleod
B. C. Price	Vegreville
J. J. Vandenberg	High Prairie
D. Taylor	Nampa
S. J. Beddoes	Bentley
R. Walker	Athabasca
J. J. Szucsko	Manning

WEED CHEMICAL SALES

D. G. Sisson	Castor
B. C. Price	Vegreville
J. A. Avramenko	Huxley
G. P. Sheffield	Killam
K. E. McRae	Westlock
W. Herr	Ft. Saskatchewan
J. J. Vandenberg	High Prairie
B. M. Meashaw	Hines Creek
W. Campbell	Grande Prairie
R. Brehaut	Grassy Lake

GENERAL FARM SUPPLIES SALES

D. G. Sisson	Castor
J. I. Swartz	Brooks
C. P. McGuckin	Smoky Lake
J. J. Vandenberg	High Prairie
A. Bartko	Rimbey
J. L. Paul	Bonnyville
W. Kawyuk	Morinville
S. J. Beddoes	Bentley
A. Gordey	Vilna
D. Kress	Bow Island

SEED SALES

J. W. Dixon	Fort St. John #1
J. J. Vandenberg	High Prairie
J. Paul	Bonnyville
R. Walker	Athabasca
R. B. Baier	Taber
A. Berg	Carseland
D. Lindmark	Wainwright
W. Palkun	Boyle
W. Campbell	Grande Prairie
K. E. McRae	Westlock

SASKATCHEWAN FERTILIZER SALES

D. A. Hipkins	Porcupine Plains
I. E. Ramsden	Naicam
L. Thorburn	Congress
J. G. May	Landis
T. D. Ellis	Rosthern
B. L. Wilson	Macklin
T. F. Viczko	Lake Lenore
G. T. Waterhouse	Davidson
E. Plews	Elrose
W. A. Harder	Yellow Grass

WEED CHEMICAL SALES

T. D. Ellis	Rosthern
J. G. May	Landis
F. A. Vermeulen	Brock
D. A. Hipkins	Porcupine Plains
P. Fertuck	Battleford
T. G. Ellis	Arborfield
E. Plews	Elrose
C. A. Miller	Carrot River #2
L. Thorburn	Congress
A. Leicht	Codette

GENERAL FARM SUPPLIES SALES

G. Ziebart	Swift Current
T. H. Rutten	Carlyle
J. G. May	Landis
G. T. Waterhouse	Davidson
W. Jackson	Kinistino
P. Chudyk	Hague
J. L. Bilokryly	Dinsmore
R. A. Reichert	Marengo
C. L. Gobert	Prud'homme
H. V. Schapansky	Moose Jaw

SEED SALES

J. G. May	Landis
G. T. Waterhouse	Davidson
H. V. Schapansky	Moose Jaw
L. Thorburn	Congress
R. Jordens	Weyburn
G. Ziebart	Swift Current
W. A. Harder	Yellow Grass
T. S. Carpenter	Langenburg
B. A. Jennett	Cupar
J. Sabadash	Yorkton

MANITOBA FERTILIZER SALES

H. J. Trumbra	Fannystelle
F. A. Price	Rignold
D. D. Lamont	Deloraine
J. R. Turnbull	Reston
L. C. Price	Gilbert Plains
H. E. Nichol	Killarney
E. L. Hammond	Petrel
J. R. Price	Boissevain
D. J. Glennie	Ste. Anne
A. T. Price	Foxwarren

WEED CHEMICAL SALES

T. W. Holowachuk	Birch River
D. J. Glennie	Ste. Anne
H. E. Nichol	Killarney
F. A. Letkeman	Morden
M. J. Wozniczka	Arnaud
H. J. Trumbra	Fannystelle
B. S. Carette	Rathwell
D. E. Pierce	Neepawa
B. G. Bergman	Plum Coulee
B. G. Long	Manitou

GENERAL FARM SUPPLIES SALES

H. E. Nichol	Killarney
R. E. Yager	Minnedosa
B. G. Long	Manitou
L. C. Price	Gilbert Plains
K. A. Wells	Melita
D. J. Glennie	Ste. Anne
B. H. McMullan	Shoal Lake
L. Fisher	Mariapolis
G. W. Foster	Russell
G. T. Robbins	Nesbitt

SEED SALES

R. A. Badiou	Beausejour
D. C. Kott	Virden
B. G. Long	Manitou
D. E. Pierce	Neepawa
D. D. Lamont	Deloraine
K. A. Wells	Melita
G. M. Grierson	Medora
D. J. Glennie	Ste. Anne
C. D. Rogers	Plumas
T. W. Holowachuk	Birch River

Description of Weed Seedlings on Annual Report Cover

Broadleaved Weeds

These are annual broadleaved weeds which can usually be controlled with higher rates of 2,4-D, MCPA or Banvel, Lorox, Torch DS combined with 2,4-D or MCPA.

Cleavers: Leaves are produced in whorls, usually in groups of 6 to 8 leaves on the stems. The leaves are pointed at the tip, roughened and are up to 2 inches long. The stems are square, with short, bristly downward pointing hooks growing on corners. Flowers are white to creamy in color, small and produced in axils of upper leaves.

Wild Buckwheat: The alternate growing leaves are heart-shaped, green to olive in color and up to 2 inches long. The base of the stalk gives rise to a papery sheath surrounding the stem. The flowers are small, greenish and drooping. The stems are weak and twining, growing along the ground or climbing over other plants.

Cow Cockle: The leaves grow opposite each other and clasp the stem. The erect stem grows up to 3 feet or taller. It's branched and has swollen nodes. The flowers are showy, pale red or deep pink, funnel-shaped and grouped at the ends of the stems.

White Cockle: This short-lived perennial weed grows to a height of 3 feet. Leaves are opposite, pointed and hairy. It's flowers open at night and are white, or occasionally pink. White cockle is often confused with night-flowering catchfly.

Hemp-nettle: The leaves are in pairs on opposite sides of the stem, oval in shape with regularly toothed margins, and have bristly hairs. The stems are square with bristly hairs, and are erect or spreading, with many branches. Flowers are dense and are white, pink or purple in clusters where the leaves join the stem.

Redroot Pigweed: The alternate leaves, one per node, are 2 to 4 inches long and about 2 inches wide. The leaf's underside has a prominent white vein. The stems are rough and somewhat hairy near the tip. The flowers are grouped into dense spike-like clusters at the ends of the branches.

American Dragonhead: The coarsely toothed leaves grow opposite each other on the stem. The 4-sided stem is heavily branched and grows erect to a height of 1 to 3 feet tall. Its bluish or purplish flowers are crowded into dense terminal spikes at the ends of branches or clustered in the axils of leaves.

Tartary Buckwheat: The leaves are triangular and as broad as they are long — 1 to 4 inches long and wide. The plant grows more erect than wild buckwheat. The flowers are greenish white in stacked clusters from the base of the upper leaf stalks.

Lady's Thumb: The long, narrow, alternate leaves are netted veined but not parallel veined as in grasses, and the undersides of the leaves have tiny silvery hairs. They are widest near the middle. The base of the leaf gives rise to a papery sheath surrounding the stem. The flowers are grouped into dense clusters at the ends of the stems. Lady's thumb and smartweeds are very similar.

Milkweed: Cotyledons have a few granules above and shiny ones beneath. True leaves are in pairs with a prominent mid-vein beneath and short hairs on the margin. This perennial has a white sticky sap. Purplish flowers are in ball-like clusters at the top.

Scentless Chamomile: This short-lived perennial has alternate leaves finely divided into many thread-like segments. They have no scent, even when crushed, hence their name scentless. Flowers are daisy-like with white rays around the margin and numerous yellow tubular flowers in the center. The stem is erect with many branches.

Russian Thistle: The leaves are needle-like and flattened on the lower side. The stems are branched and spreading, often with reddish strips. The flowers are green or pinkish in color and inconspicuous.

Prostrate Pigweed: The leaves are spoonlike in shape and narrower at the base than the top. The leaves are usually purplish on the underside. The flowers occur in small clusters at the leaf base. The plant forms a mat rather than growing upright.

Chickweed: The leaves and plants are small. The leaves always are in pairs opposite each other on the stem. The stems are prostrate and spreading. Often the stems will root at the nodes.

Round-leaved Mallow: Shiny, bright green leaves have ragged or indented margins. The leaves are cup-shaped and borne on the top of fairly long stems. The stems are prostrate and spreading to occasionally erect. The white to pale purple flowers are in groups of up to 3 at the base of the leaf stalk.

Grassy Weeds

This group of weeds are members of the family that includes most of our cereal grains. All grasses have fibrous roots, jointed stems which are hollow, and long and parallel veined leaves.

Wild Oats: In the seedling stage, it can be distinguished by its counter-clockwise twist of the leaves. When mature, it's easy to identify by its black seeds. Some wild oats, however, have tan or whitish seeds which can be distinguished from tame oats by a scar or 'suckermouth' at their base.

Green Foxtail: In its early stages, it looks like any grass but the leaves appear quite broad for their length, so look like a tiny corn plant. The seed head is spike-like with the appearance of a bottle brush.

Proso Millet: In the seedling stage, proso millet can be confused with green foxtail. However, proso millet has more hair on the leaf sheath and leaf blade. It grows to a height of 48 inches and produces seed until freeze-up.

Barnyard Grass: The plant is erect to horizontally spreading and branched at the base. Seed is carried on a branched panicle with spikelets or short branches.

Winter Annuals

These are plants that germinate in the late summer or early fall and form a low, flat rosette of leaves before freeze-up. They over-winter as rosettes and continue growth the following spring.

Viper's Bugloss: The leaves are covered with short, stiff hairs and the upper surface of the leaf is rough.

Flixweed: The first leaves are 3-lobed while others are finely divided, grey-green and covered with fine hairs to give them a greyish color. Flowers are in small, dense clusters at the ends of the branches.

Stinkweed: Often grows in rosette stage. Leaves can be variable in shape but have prominent, shiny veins underneath. Flowers cluster at the ends of erect stems. Plant has a distinct odor when bruised or crushed.

Narrow-leaved Hawk's Beard: Leaves have distinct barbs on the margins of true leaves. The stems are branched and leafy with a milky-white sap. Flowers are yellow and many are clustered together in the head.

Shepherd's Purse: The basal leaves are 4 to 5 times longer than wide. They vary from slightly margined to deeply lobed. Upper surface of true leaves is slightly hairy. The white flowers are borne singly on short stalks clustered together at the ends of the stems.

Common Groundsel: The young leaves are heavily lobed and smooth. The stems are branched, hollow, smooth and succulent, and may be erect or reclining. Several yellow flowers are in each head at the end of the stems.

Perennial Weeds

These weeds survive for several years. They propagate by seed and also creeping roots or creeping rootstocks.

Russian Knapweed: Lower leaves are long and narrow, usually with several lobes. The stems are branched and densely covered with cobwebby hairs when young. Flowers are grouped into heads at the end of branches and are green with broad papery white tips.

Canada Thistle: Leaves are opposite, oblong or lance-shaped with sharp spines. The stems are erect and hollow, with clear sap. Flowers vary in color from purple through pink and develop in heads resembling single flowers at the ends of branches.

Yellow Toadflax: Cotyledons have a bump near the tip. First true leaves are smooth and egg-shaped. All are hairless and borne alternately around a central stem. The stem is tall, green and has few branches. Flowers are

snapdragon-like, bright yellow on stalks about 2 inches long.

Quack grass: It's also called twitch grass and couch grass. Leaves are slightly hairy on upper surface. Seeds are borne in a spike with one row of spikelets on each side of the stem.

Sow thistle: Leaves alternate on stem and are somewhat lobed and toothed. Stem is erect and hollow with a milky sap, and branch near the top. The yellow flowers are grouped into heads at the end of the branches.

Dandelion: This is a tap-rooted perennial that spreads by seeds. The leaves are all basal with margins coarsely toothed. The flowers are bright yellow in a head resembling a single flower on a hollow stem.

Broadleaved Weeds

These weeds can usually be controlled with low rates of 2,4-D or MCPA.

Wormseed Mustard: Long, narrow leaves have smooth, wavy toothed margins. Long stem is erect, occasionally branched and sparsely covered with hairs. Pale yellow flowers are in clusters at the ends of the stems.

Burdock: This is a biennial and spreads by seeds. First year, only the basal rosette of waxy leaves is present. Second year, stem leaves alternate, one per node, with a coarsely and shallowly toothed margin. Leaf is triangular in outline but often heart-shaped at the base. Can grow to a height of 5 to 6 feet or taller. The flowers are purple, grouped into heads surrounded by a series of bracts. The outer bracts have hooked spines making the seed head into a burr easily carried on hair or clothing.

Cocklebur: First two leaves are paired; later ones alternate. They are triangular in shape and have a rough surface. The stem can be hairy with hairs lying flat against the stem. Flowers are grouped into heads. Lower ones develop into woody, spine-covered burrs.

Russian Pigweed: First true leaves are tapered towards both ends with a prominent mid-vein. Stems are erect, up to 4 feet tall, and branched. Two types of flowers on each plant: male yellow flowers on long, slender clusters at the end of branches disappear after flowering and female flowers in the axils of brack-like leaves bear seed.

Kochia: Cotyledons are bright pink underneath. Leaves are covered with

soft, fine hairs on the undersides and along the margins. The tall, erect stems are freely branching. Small yellow flowers form clusters at the bases of leaf-like bracts.

Wild mustard: Very similar to canola. The deeply notched or indented end of the seed leaf indicates it is one or the other. The first true leaf has a large lobe on the leaf end. The stem has strong, downward pointing hairs. Canola is hairless. The stem is branched with a purplish spot at the base of each branch. Flowers are bright yellow clustered at the ends of the branches.

Lamb's-quarters: Cotyledons and young leaves have pinkish undersides and are covered with silver particles. Leaves are coarsely toothed. Stems grow 1 to 6 feet tall. Flowers are tiny, green and grow in clusters at the stem tip or in the leaf axils. One of the most abundant weeds, it's often called pigweed.

Stork's-bill: Cotyledons are 3-lobed and true leaves are finely divided. The stem is low and spreading. Flowers are pink to purple with a bristle tip.

Plantain: This is a fibrous rooted perennial. The young plant forms a rosette somewhat like dandelion. The leaves are ribbed by parallel main veins. Small, white flowers are densely crowded in a long slender spike.

Wild Tomato: Leaves are deeply lobed with scattered hairs. The berries resemble small tomatoes.

Ball mustard: Leaves are long, hairy, lance-shaped and wrap around the stem. The stem has few branches. Small yellow flowers are clustered near the ends of the stem on 3- to 5-inch-long stock.

Giant Ragweed: True leaves are 3-lobed with sawtoothed margins. Plants grow to heights of over 10 feet. The stems are rough and hairy. Flowers have greenish heads, each head containing either female or male flowers, never both.

The photographs were made available by the Weed Section, Manitoba Agriculture. Their cooperation is gratefully acknowledged. The descriptions were obtained from "Weed Seeding Identification," Alberta Agriculture; "Weeds of Canada," Agriculture Canada; and "Weeds of Alberta," Alberta Environmental Centre.

WINTER ANNUALS



Viper's bugloss



Flixweed



Stinkweed



Narrow-leaved hawk's beard



Shepherd's-purse



Common groundsel

PERENNIAL WEEDS



Russian knapweed



Canada thistle



Yellow toadflax



Quack grass (couch)



Sow thistle



Dandelion

BROADLEAVED WEEDS — easy-to-kill



Wormseed mustard



Burdock



Cocklebur



Russian pigweed



Kochia



Wild mustard



Lamb's quarters



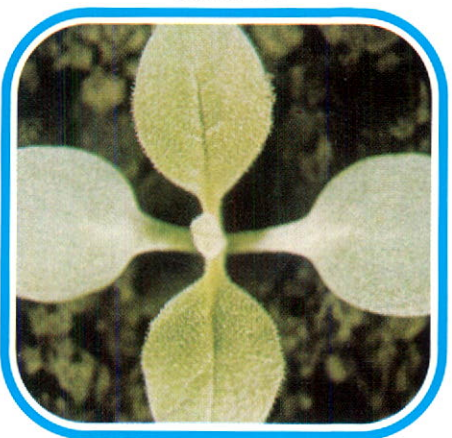
Stork's-bill



Plantain



Wild tomato



Ball mustard



Giant ragweed