

Four Wheel Drive, Fence posts or Foreclosure: What is the Economics of Farming in Saskatchewan?

Presented to the Soils and Crops Workshop 1999
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Good News – Bad News

The good news is that your region appears to be the most competitive region for dairy, beef, hog and poultry production in Canada.

The bad news is that it is because your grain prices have collapsed and land prices have plummeted to \$200 per acre.

The Current State of Saskatchewan Agriculture

Agricultural Income Disaster Assistance (AIDA) Program announced on February 23, 1999

History may suggest it could have been
Agricultural Incompetence Displayed Again!

- National Safety Net Advisory Committee members
- CFA - Lloyd Evans, Yvon Proulx Jack Wilkinson,
- Leslie Jacobson and Larry Miehl
- Canadian Horticulture Council: Ken Forth
- Canadian Pork Council: Cad Moore
- Canadian Cattleman's Association: Marlin Beaver
- NISA Representatives: Dale Verheke, Hector Delanghe and Dianne Balderston

Brief overview of Saskatchewan Agriculture

The microeconomics

The macroeconomics

The political economics

Some challenges

Microeconomic Analysis: Crop Choice

Saskatchewan Agriculture and Food Crop Planning Guides for the Brown, Dark Brown, Black Soil Zones and Alternative Crops

- Cost are variable expenses and total expenses per acre
- Brown soil: only spring wheat and mustard on fallow have a return over total expenses (previous year summerfallow costs are ignored) (27 budgets)
- Dark Brown Soil: only canola and lentils on fallow and lentils on conventional or direct seeded have a return over total expenses (previous year summerfallow costs are ignored) (27 budgets)
- Black soil: only canola on fallow has a return over total expenses (previous year summerfallow costs are ignored) (27 budgets)
- Alternative crops: Eston, Laird and Red lentils, Desi and Kabuli chickpeas, Oriental and Brown mustard on Brown soil and caraway, coriander and fenugreek in the Dark Brown soil and no crops in the black soil zone provide a return over total expenses (23 budgets)

Macroeconomic Analysis: Saskatchewan Farm Income

Realized Net Farm Income has been reported since 1926

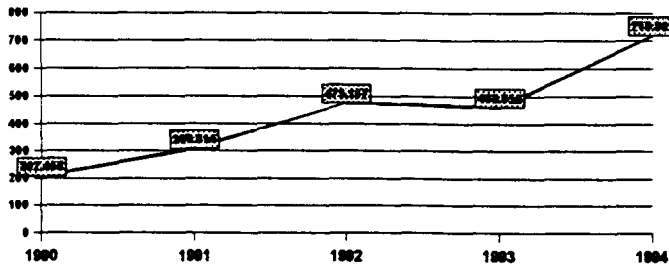
Also Compare with off farm income and all Sask. families

A set of data on incomes and margins in agriculture

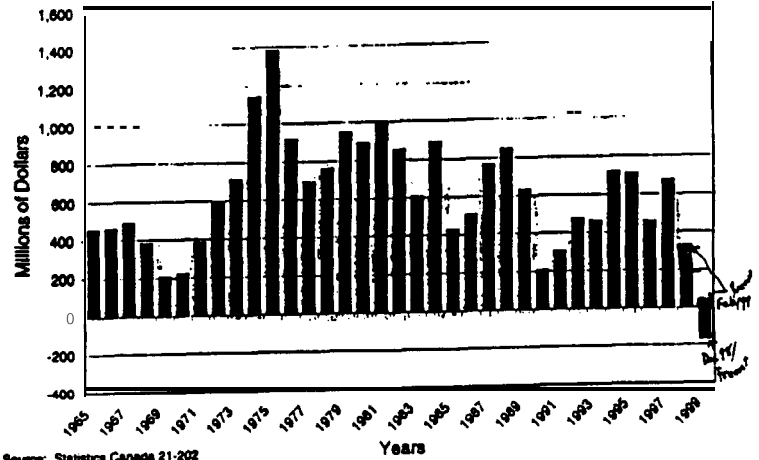
Indicate the amount of dollars in NISA accounts for Saskatchewan farms by size

Realized Net Farm Income for Saskatchewan

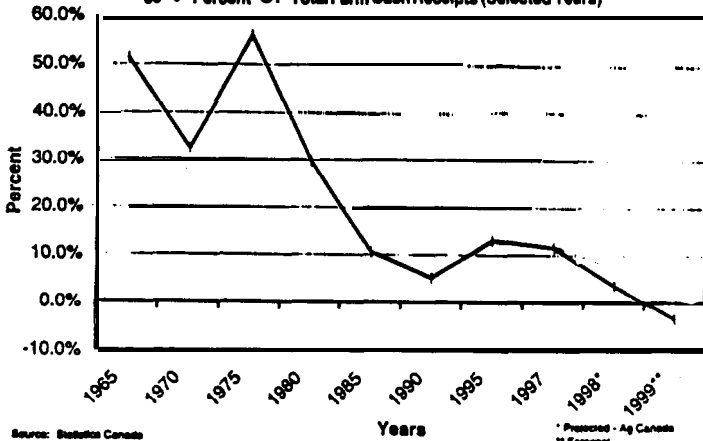
1990 - 1994
Million Dollars



Saskatchewan Realized Net Farm Income, 1965-99

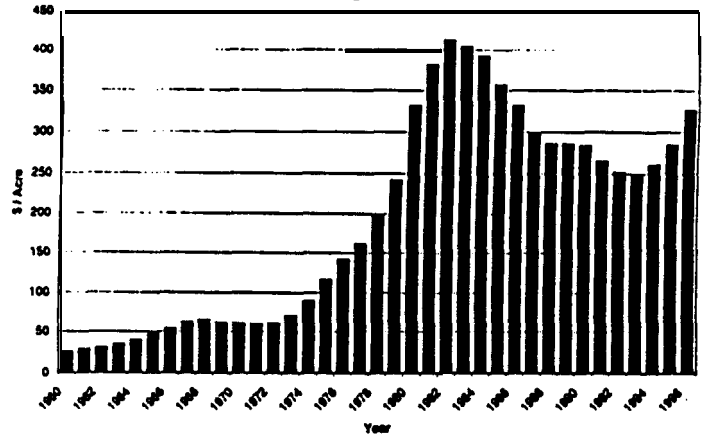


Saskatchewan Realized Net Farm Income as a Percent Of Total Farm Cash Receipts (Selected Years)



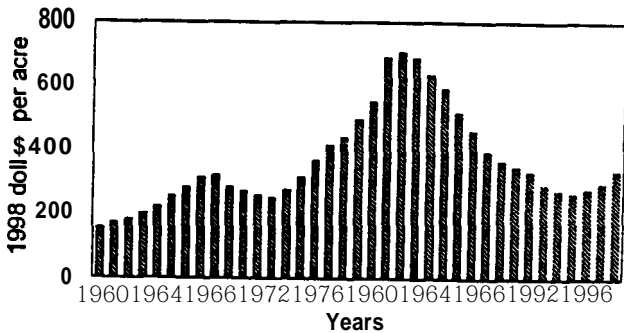
Forecast December, 1998

Average Value Of Farm Capital In Current Dollars

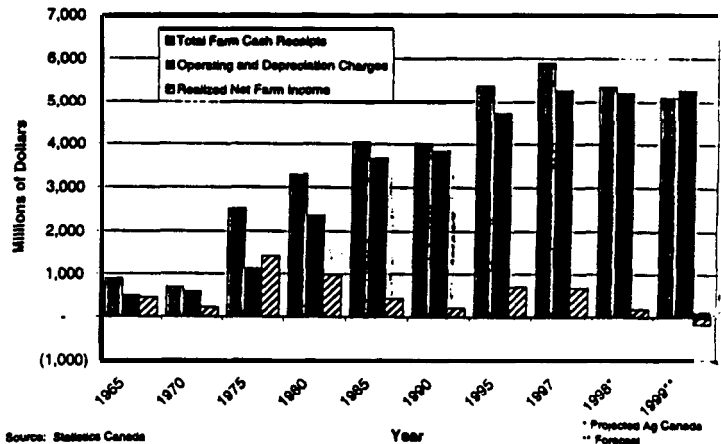


Saskatchewan Farm Land Prices

1998 dollars per acre

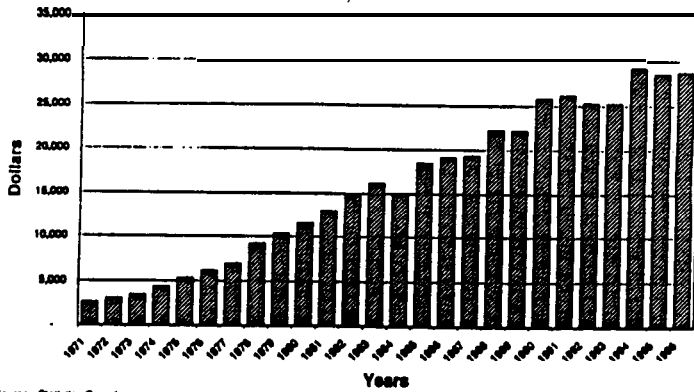


Saskatchewan Farm Cash Receipts Operating and Depreciation Charges and Realized Net Farm Income (Selected Years)



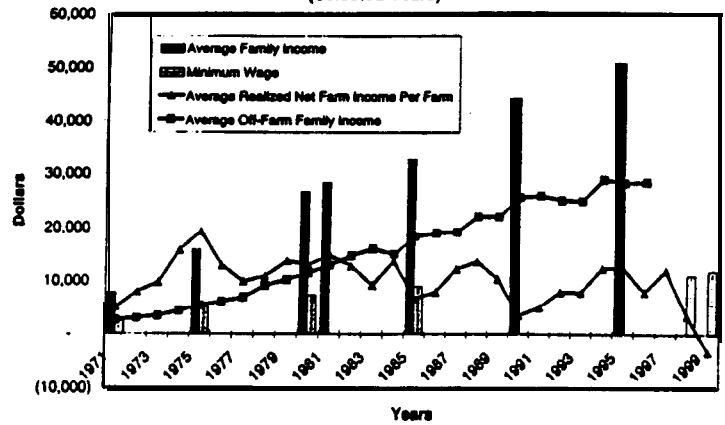
Forecast December, 1998

Saskatchewan Average Off-Farm Family Income, 1971-96



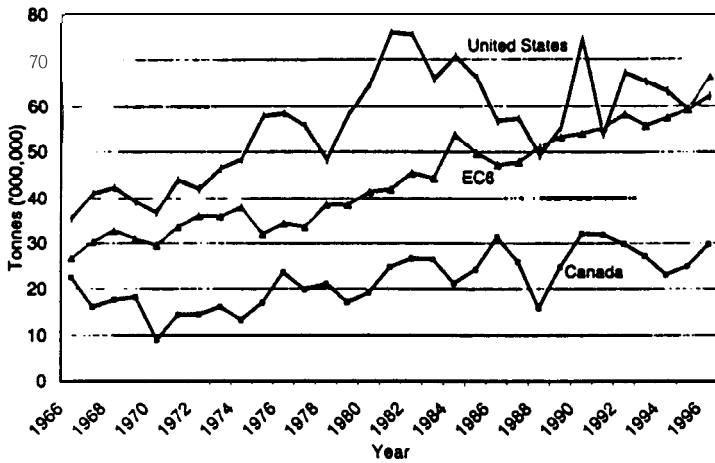
Source: Statistics Canada
 A farm family is defined as families and unattached individuals whose one individual reported farming as the principal occupation.
 Off-farm income includes: wages and salaries; net self-employment; investments; transfer payments; and other.

Saskatchewan Income Comparison (Selected Years)

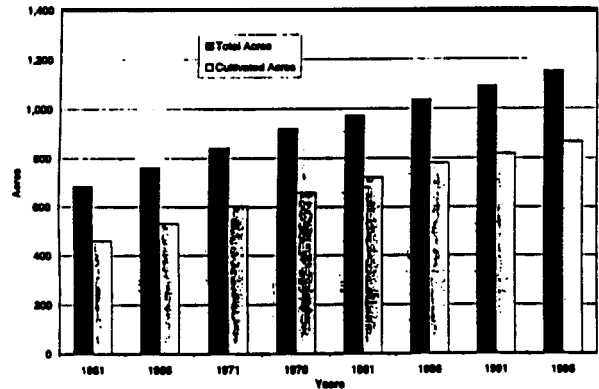


Source: Statistics Canada 13-307 1998 Canadian Global Alliance
 SAF Staff Files Computations: Penneaux

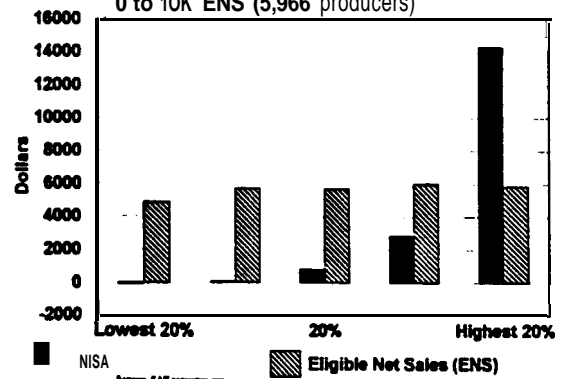
Wheat Production, 1966-96



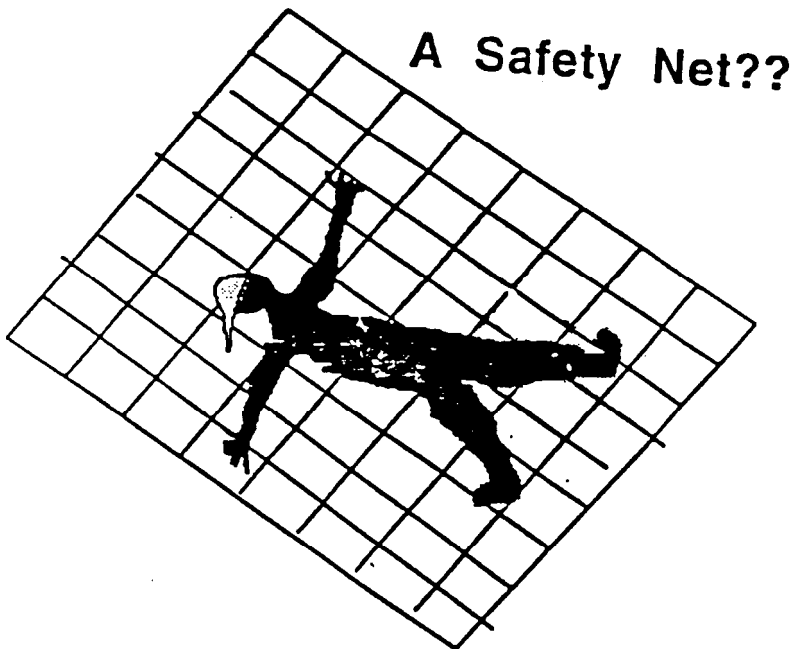
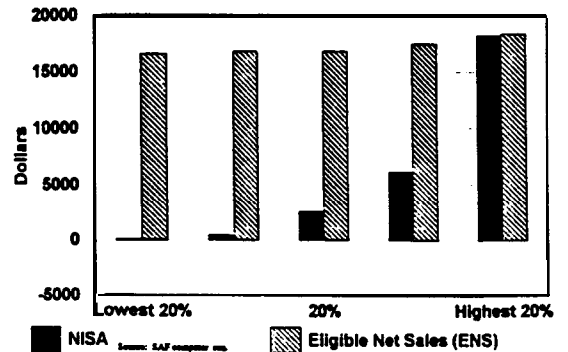
Saskatchewan Average Farm Size



Saskatchewan Farmers NISA Fund Balance 0 to 10K ENS (5,966 producers)

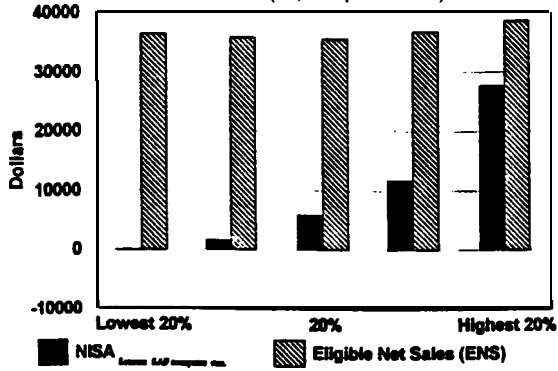


Saskatchewan Farmers Nisa Fund Balance 10K to 25K ENS (10,460 producers)



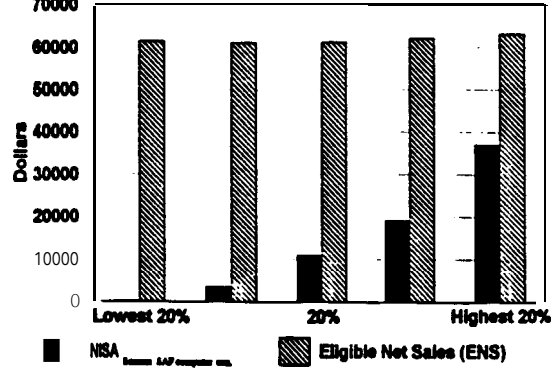
Saskatchewan Farmers NISA Fund Balance

25K to 50K ENS (11,660 producers)



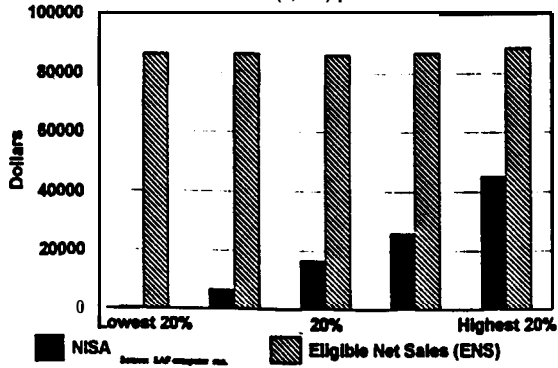
Saskatchewan Farmers NISA Fund Balance

50K to 75K ENS (8,102 producers)



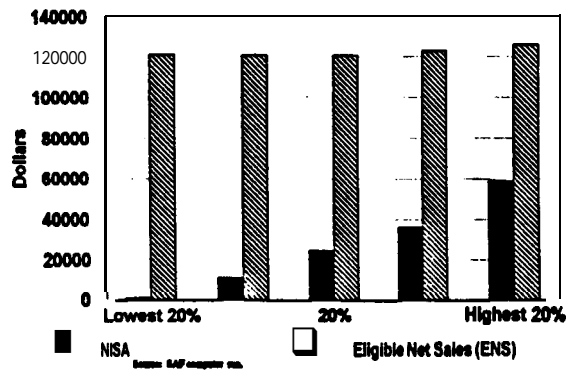
Saskatchewan Farmers NISA Fund Balance

75K to 100K ENS (5,911 producers)



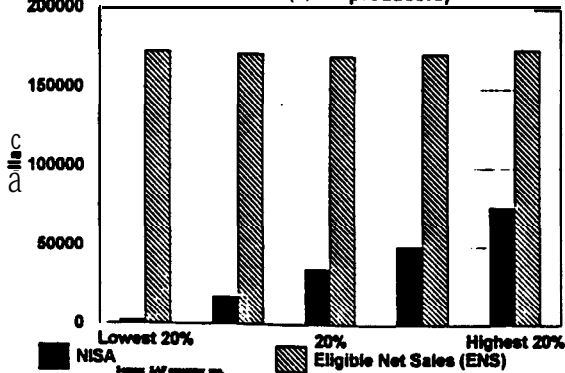
Saskatchewan Farmers NISA Fund Balance

100K to 150K ENS (6,880 producers)



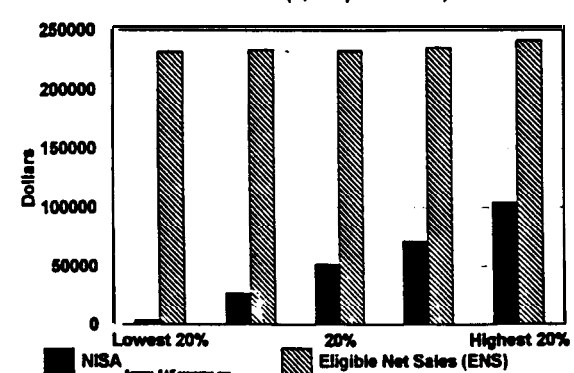
Saskatchewan Farmers NISA Fund Balance

150K to 200K ENS (3,480 producers)



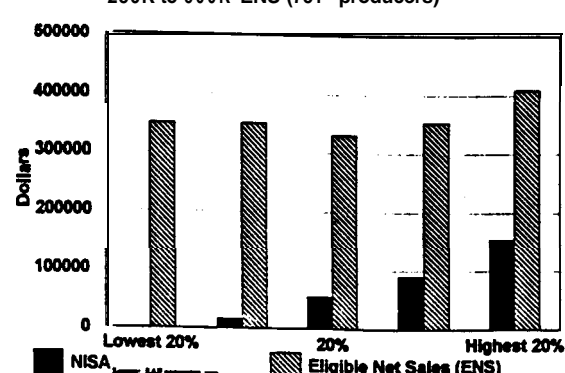
Saskatchewan Farmers NISA Fund Balance

200K to 250K ENS (3,295 producers)



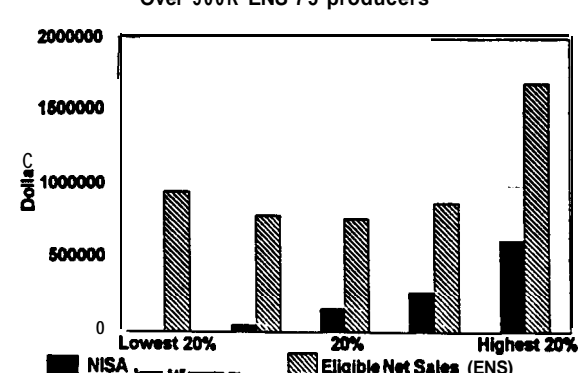
Saskatchewan Farmers NISA Fund Balance

250K to 500K ENS (751 producers)



Saskatchewan Farmers NISA Fund Balance

Over 500K ENS (75 producers)



Farm Income Forecasts for 1998 and 1999 Summary Tables

● 1998
● III

Farm Income Forecast, Canada and Provinces, 1998 (\$ million)*

	NFLD.	P.E.I.	N.S.	N.B.	QUE.	ONT.	MAN.	SASK.	ALTA.	B.C.	CANADA
Total Crop Receipts	16	194	121	156	1,097	2,956	1,672	4,197	2,470	749	13,629
Total Livestock Receipts	57	110	236	179	3,065	3,567	1,063	1,135	3,738	1,002	14,196
Total Market Receipts	73	303	359	337	4,182	6,543	2,735	5,332	6,206	1,751	27,825
Total Payments	0	8	9	7	603	185	79	240	240	27	1,399
Total Cash Receipts	73	311	366	344	4,765	6,726	2,614	5,572	6,446	1,776	29,225
Operating Expenses After Rebates	59	237	291	267	3,639	5,430	2,274	4,259	4,659	1,400	22,714
Net Cash Income	14	74	77	77	1,146	1,296	540	1,314	1,569	378	6,511
Realized Net Income	10	43	37	43	728	426	151	356	582	193	2,574
Total Net Income	9	36	32	39	696	476	160	336	523	165	2,496

Farm Income Forecast, Canada and Provinces, 1999 (\$ million)*

	NFLD.	P.E.I.	N.S.	N.B.	QUE.	ONT.	MAN.	SASK.	ALTA.	B.C.	CANADA
Total Crop Receipts	16	185	128	156	1,141	3,013	1,546	3,760	2,481	778	13,205
Total Livestock Receipts	61	113	241	185	3,194	3,717	1,106	1,176	3,857	1,032	14,663
Total Market Receipts	77	298	370	341	4,335	6,730	2,652	4,936	6,338	1,810	27,866
Total Payments	0	9	7	6	631	283	138	415	297	31	1,818
Total Cash Receipts	77	307	377	347	4,965	7,013	2,790	5,351	6,635	1,641	29,707
Operating Expenses After Rebates	60	240	292	268	3,694	5,477	2,308	4,332	4,922	1,426	23,020
Net Cash Income	17	67	65	79	1,271	1,536	483	1,018	1,713	415	6,666
Realized Net Income	12	35	44	45	843	655	59	59	695	230	2,709
Total Net Income	12	39	40	49	755	680	90	-22	541	201	2,307

* Although the forecasts are expressed as numbers, they are best interpreted as mid-points of forecast ranges (see Average Prediction Errors (RMSPE) table providing forecast ranges.

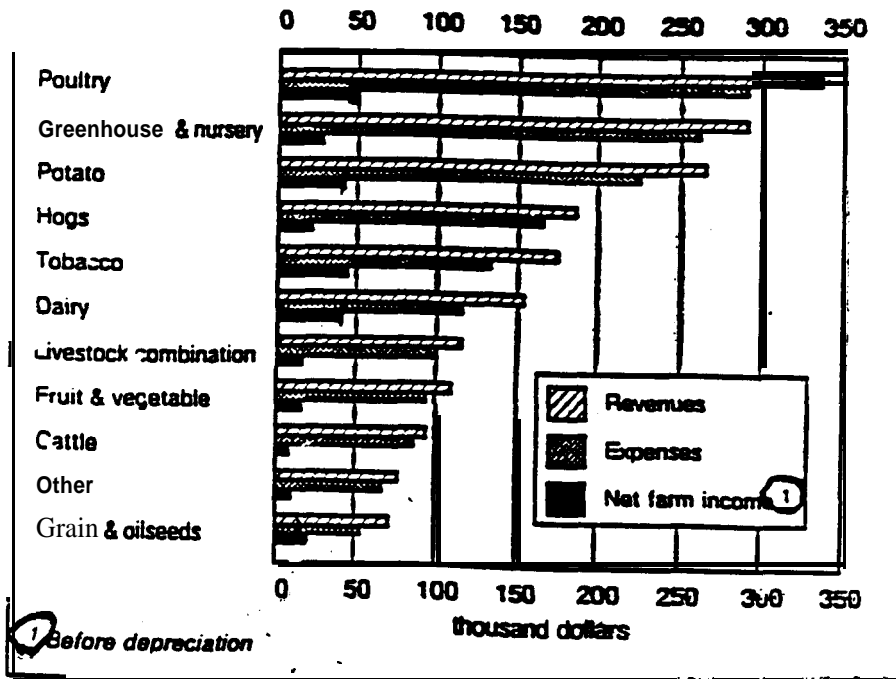
[Return to Index Page](#)

Last Updated on February 2, 1999
By Economic and Policy Analysis Directorate



http://www.agr.ca/policy/epad/english/fi_4cast/sumtbl.htm

Graph 8 - Average Operating Revenues, Expenses and Net Income⁽¹⁾ by Farm Type, Canada, 1997



Note that net income is before deducting depreciation charges on machinery and buildings. This overestimates net income, especially on grain farms which have a large machinery investment.

Political/Economic Analysis

An Appropriate Selection of the Facts!

Weak and disorganized farm lobby in Saskatchewan

Farm income now reported as net cash income which is income prior to deducting depreciation charges

A major distortion

"Send me an S 19 or S11!"

"Why, so I can apply for a new tractor or combine because my depreciation was not factored in and the machine is wearing out!"

Format: Farm Income Reporting 1926 to 1986

1926	'000 of dollars	Sask
Receipts from Farm Operations		293127
Income in Kind		20692
Supplementary Payments		-
Realized Gross Income		3 13819
Operating Expenses and Depreciation		148425
Realized Net Income		165394
Value of Inventory Change		-1835
Total Gross Income		311984
Total Net Income		163559

Format: Farm Income Reporting 1988 to 1998

1999	'000 of dollars	Sask
Total Cash Receipts		535 1000
Operating Expenses after Rebates		4259000
Net Cash Income		1018000
Income in Kind		
Depreciation Charges		-
Realized Net Income		59000
Value of Inventory Change		
Total Net Income		-22000
Emphasis by author of Net Cash Income		

. Proposed SII Application Form

Year	\$/acre	X	Your cultivated acres	=	Your annual shortfall
1988	33.60		_____		\$ _____
1989	30.16		_____		\$ _____
1990	26.53		_____		\$ _____
1991	2	3	. <u>4</u> <u>8</u>		\$ _____
1992	2	2	. <u>0</u> <u>4</u>		\$ _____
1993	2	1	. <u>0</u> <u>2</u>		\$ _____
1994	20.84		_____		\$ _____
1995	2	0	. <u>6</u> <u>1</u>		\$ _____
1996	2	0	. <u>0</u> <u>9</u>		\$ _____
1997	1	9	. <u>7</u> <u>2</u>		\$ _____
Total					\$ _____

For a 1000 acre farm it is \$28,090!!

Proposed SII Application Form Page 2

Check appropriate box
 Send tractor _____ Send combine _____
 Send C a s h
 Date _____, 1999

 Signature of Farm Operator Witness

Dollars per acre in Saskatchewan is calculated as depreciation costs for buildings and machinery for each year divided by annual number of acres and brought to current dollar value using an average interest rate, of 90 day treasury bills and 10 year bonds as reported in the Canadian Economic Observer Table 32. Historical Supplement, 1997/98.

Proposed SII Application Form Page 3

Pending proper design of this form and legislative approval, send directly to any or all of those listed below:

- Prime Minister Jean Chretien
- Agriculture Minister, Lyle VanClief
- Canadian Wheat Board Minister, Ralph Goodale
- Preston Manning, Leader of the Opposition
- Paul Martin, Minister of Finance

Mail all **S11** Completed Application Forms to:

% House of Commons
 Parliament Hill
 Ottawa, Ontario

Postage is Free!

Filtering of information

"Please the boss"

- **Land Bank cost estimate**
 . Land prices down 4 years out of 100 years!
- **REFUSED**
- **Ross Thatcher**
 ▶ "From you guys, I want the facts! If there is any lying to be done... I'll be doin' er!"

Via Roy Lloyd

Government Support Mechanisms

Visible - Prairies

Less Visible
 Non-Prairie

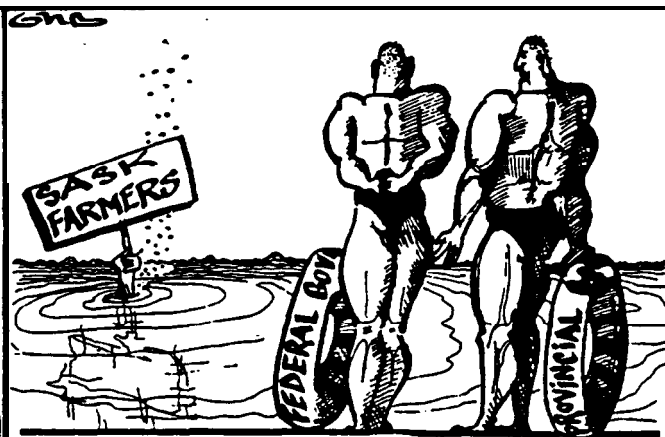
WGSA
 WGTA
 CWB initial

Supply Management
 Seasonal Tariffs

SCGP
 Crop Insurance
 ASA
 Two Price Wheat

Is it the Federal policy to abandon any significant support for Prairie agriculture?

- A major departure from the past!
- Other businesses receive implicit support
 - . UI or now EI program
 - . also welfare if depressed conditions continue
- Prairie agriculture • owner operated farms
 - . Large land base and investment
 - ▶ Low labor requirement
 - . Farmers can't collect EI or welfare
- Prairie exports provide jobs and economic activity across Canada



"And by the way - is **this** guy in your area or mine?..."

Saskatoon Star Phoenix
Winter, 1998-99

Who Pays for Ag Programs (Historical)?

	Federal	Prov.	Producer
WAR Program	100%		
C. Grain Commission	Lots		Some
Feed Freight Assistance	100%		
Temp Wheat Reserve Act	100%		
Init. Payment Guarantees	100%		
CWB Cash Advance	100%		
LIFT	100%		

Source: Agriculture Canada annual reports selected years.
Fulton, Rosaasen, Schmitz. Report for Economic Council of Canada
Prairie Farm Policy Guide. Selected Yom. Published by Western Producer
Rosaasen. Notes and research.

Who Pays for Ag Programs (Historical)?

	Federal	Prov.	Producer
Two Price Wheat	100% *		Occasional*
Branch Line Subsidies	100%		
Hopper Cars	?	?	?
Crop Ins. (Pre late 1980s)	-45%	(Admin)10%	-45%
WGSA	-67%		-33%
WGTA	100%		
SCG I	100%		

Source: Agriculture Canada annual reports, selected years.
Fulton, Rosaasen, Schmitz. Report for Economic Council of Canada.
Prairie Farm Policy Guide. Selected Years. Published by Western Producer.
Rosaasen. Notes and research.
• During years when the wheat price exceeded the set price range, the program resulted in a producer to consumer income transfer.

Who Pays for Ag Programs (Historical)?

	Federal	Prov.	Producer
SCG II	100%		
CDAP Drought	Most		Some
GRIP	41.6%	25%	33%
NISA	-30%	-20%	-50%
New Rules	60%		40%

Source: Agriculture Canada annual reports, selected years.
Fulton, Rosaasen, Schmitz. Report for Economic Council of Canada.
Prairie Farm Policy Guide. Selected Years. Published by Western Producer.
Rosaasen. Notes and research.

Producer Subsidy Equivalents in %

Product	EU		us		Canada	
	1986-88	1997e	1986-88	1997e	1986-88	1997e
Wheat	56	36	54	32	51	10
Beef&Veal	51	60	7	4	20	12
Pigmeat	6	9	5	5	16	11
Total All	48	42	60	56	38	20

Source: OECD Data

An Appropriate Selection of the Facts

Disinformation

- . **Used during the war.... intended to mislead**
- **Examples**
 - ▶ Realized Net Farm Income vs Net Cash Income
 - ▶ Hog industry in Australia
 - Barley subsidized - \$70 per tonne entering North America (implied it was fed to Canadian hogs)
- **Canadian Minister of Agriculture?**
 - Comment on PSE?

Farmers are Great at Inventing/Adopting Technology

- **Machines**
- **Agricultural chemicals**
- . **New varieties**
- **New enterprises to diversify**
 - . Crops
 - . Livestock
- **But**
 - ▶ “Farmers: Neanderthals in the legal world”

Agriculture Legislation

- **Like pouring concrete**

Other Rules in the Legal World

- **Property rights - silence vs loud music**
- . **Plant breeders rights**
 - . Charles Saunders: Benefits to producers and consumers
 - ▶ Who receives benefits today?
- **Carbon credits to reduce pollution**
- **Other environmental regulations**
 - . Snake River in US

Monsanto - Roundup Ready Canola

- “migrated to the next field”
- what about responsibility for your property and operations?
- cattle - on a neighbors canola or wheat crop
- spray - drift to a neighbor’s broad leaf crop and cause damage
- there are laws and precedents
- when will farmers launch a legal action?
- **GMO** (genetically modified organism) has increased my cost of operation

The new research world??! !

Look for a wider window for a wild oat spray.

What **if** a public scientist...didn’t have to patent...perhaps would seek a chemical to break the dormancy of wild oats...then spray once..cultivate after 40 days!!

What about a nitrogen fixing wheat?? Would a fertilizer company fund research on this??

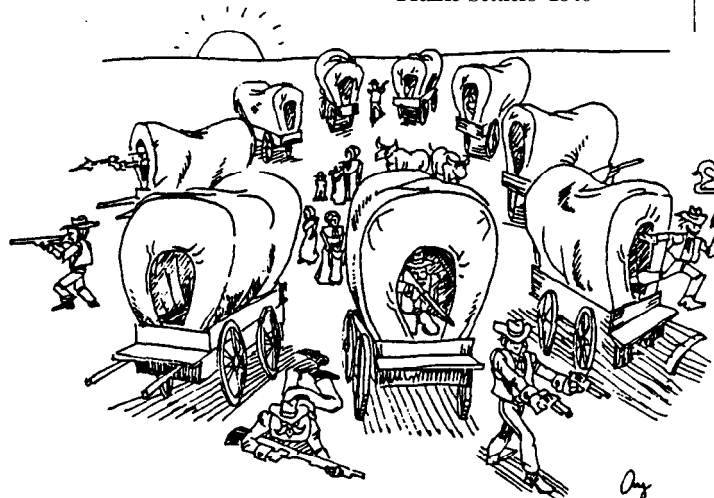
How you structure your legal framework can be very important!

The public sector and Universities lament declining budget \$ and public support.

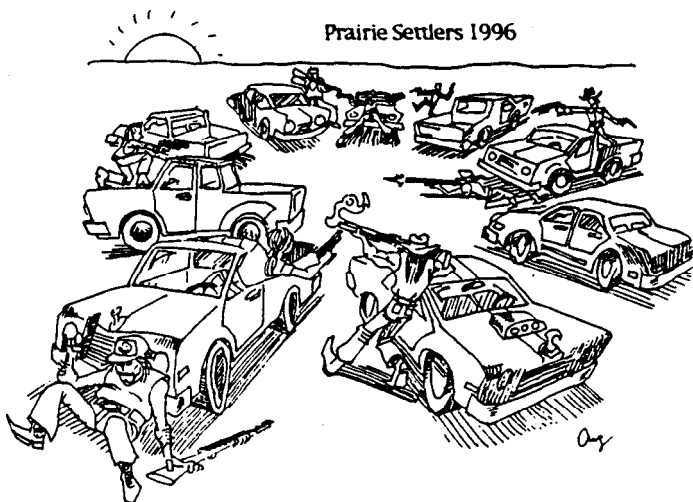
How much have they contributed to the provision of public goods?

Privatizing of data, information. grading etc.

Prairie Settlers 1846



Prairie Settlers 1996



A Suggested Payment Mechanism

The "Freedom to Manage Proposal"

- Flexible - Each person makes the decision based on their farm
- Acceptable under GATT
- Neutral to crop choice - pay on all cultivated acres across Canada
 - 5% set aside (smf, gm, ch fall) \$5.00/acre
 - 10% set aside (smf, gm, ch fall) \$10.00/acre
 - 15% set aside (smf, gm, ch fall) \$15.00/acre
 - 20% set aside (smf, gm, ch fall) \$20.00/acre

1000 cultivated acres - 20% \$20/acre or \$20,000

Two Proviso's

- If your farm is in an area where 35% or more of the land is normally in summerfallow, (using 3 year average Crop Insurance data), then reduce payment by \$5.00/acre.
- If your farm is in an area where 20% or less of the land is normally in summerfallow, then increase the payment by \$5.00/acre.

- Make the adjustment in 1999 plantings.
 - Use elevator agent (CWB permit book) and Crop Insurance data to determine individual payout
- Maximum of \$60,000 per farmer.

Responsive to Market Changes

- If canola is \$12.00/bushel, and wheat and barley up by \$2.00/bushel, you can change your mind!
 - ▶ The payment that was received in early 1999 under Freedom to Manage becomes due and payable on August 20, 1999 after the summer inspection identifies less set aside acres than the level committed.
 - ▶ The interest rate is 10% per annum on the deemed overpayment

- Simple to administer
- Simple to calculate
- Available across Canada
- Funding suggestion: Provincial 10% Federal 90%
- Can use to bargain at WTO talks

The Future:

Thin Margins
High Financial Risk in Grain Farming

- Volatile prices for export commodities
- World economic swings... Asia.... currencies
- Farmers may form “buying /selling groups”
- Shift to low inputs - forage, pasture
 - Will try exotic crops and livestock

The Future:

- Government programs are inadequate to handle a trade war
 - . NISA and Crop Insurance
- Farm consolidation
- Asset value declines in some areas
- Boom/Bust farm economy will place financial stress on input suppliers and output purchasers
- Communities decline due to loss of economic base

Economics: On the one Hand...

What is Your Framework for Analysis?

- Consider a vertically integrated hog operation vs a hog farmer
 - . Prices fall below variable costs
 - Shut down... unless you consider costs up and down the marketing chain
 - . What about payments to farmers producing products impacted by the “trade war”?
- Cost of adjustment go up and down the chain
- There is a cost of action
- There is a cost of inaction

There Are Policy Options

- It is legal to:
 - Regulate the railways
 - Have government owned roadbeds
 - Fund research for a midge resistant wheat
 - Maintain rules for licencing and bonding of dealers
 - Provide research and demonstration projects
 - Have an agricultural extension program
 - Monitor prices of inputs and marketing margins
 - Maintain a Canadian Wheat Board
 - Build and maintain roads
 - Support rural infrastructure like schools and hospitals
 - Bargain more effectively at GATT (WTO) next time
 - And many others

Powerful Economic and Political Forces Outside Canada Influence our Grain Prices

- Can influence components to alter “Made in Canada” price
- Must present case to neighbors - then politicians
- Speak with a clear unified voice
- We are fortunate!
- We live in a Democracy!
- Changes are possible!

