LEBRET/LESTOCK FARM DEVELOPMENT STUDY

previous studies of the subject farms, supported by the necessary contacts with concerned federal and provincial officials, and field visits to both sites. Consideration was given to providing employment opportunities on the farms and using them for future development of farming operations by people of Metis and non-status Indian ancestry.

The conclusions reached, and recommendations made, in this study do not necessarily represent the views of the Department of Regional Economic Expansion. Participation of a member of the DREE Saskatchewan office in the study of the farms in question does not imply that the Department holds any particular views regarding their use or disposition.

The development potentials and recommendations for each farm follow under separate titles.

EEBRET FARM

Background

The Lebret Farm was originally operated by the Oblate Fathers in conjunction with their Lebret Mission. The farm was used to provide food and employment for native people in the Lebret area. The farm received assistance as a welfare project from the Department of Social Services. In 1963, the farm was sold to the Saskatchewan Government and was operated by the Department of Social Services. In 1968, administration of the farm was transferred to Agriculture. The objective continued to be that of training for people of Indian ancestry and a source of employment for people who might otherwise be on welfare.

The farm comprises 3,520 acres of land with approximately 1,950 acres under annual cultivation and 1,000 acres seeded to perennial forage. All the farm land was used to provide feed for livestock operations consisting of a 200 sow farrow to finish hog operation and a 200 cow beef operation with calves finished to slaughter weights.

The farm staff consisted of the farm manager and from 12 to 15 farm workers depending upon the season. Except for the farm manager, all workers were unionized and worked on an hourly basis. Staff turn-over was high and productivity and efficiency low. In recent years, employment was not limited to native people and it was estimated that less than six of the workers were of Indian ancestry.

Training in recent years was limited to a few individuals who wished to gain experience with hogs before undertaking their own hog operations and were hired for a specific time period. As well, the Wascana Institute of Applied Arts and Sciences operated introductory courses in beef and hogs on the farm in the winter of 1978-79.

Existing Farm Operations

The Saskatchewan Department of Agriculture decided to terminate the Lebret farm operations by gradually phasing out the livestock enterprises before disposing of the land. The cow herd of 200 head was reduced to 100 in 1979 and the hog enterprise was completely phased out during 1980. The staff has been reduced to two full time employees and a part time manager. This staff is looking after the 100-head cow herd and operating the land surrounding headquarters. Seven quarter sections of cultivated land have been leased to adjacent farmers for 1981, pending disposal of the farm.

Review of Existing Proposals

two proposals developed in 1979 were reviewed as follows:

Lebret Farm - Farm Business Section of Saskatchewan
 Department of Agriculture.

This proposal was developed in 1979 by farm management specialists and indicates that a viable farm can be operated using the livestock and crop rotation recommended.

Summary:

Gross Revenue \$462,900
Less: Cash Costs 170,816
Less: Depreciation 61,135
Less: Labour 162,000

Net Income \$68,949

This proposal would require 7 full-time and 4 part-time employees.

2. Lebret Training Farm - Association of Metis and Non-Status Indians of Saskatchewan, September, 1979.

This proposal was developed by a consultant and is dated September, 1979. It does not include a feedlot operation as the calves are sold in the fall at weaning. Less hay and grain are required and therefore fewer acres are sown down to grass and grain is produced for sale.

Only 5 full-time and 2 part-time employees are required.

This proposal shows a viable operation with a net income of \$79,939.

Recommendation:

Two field visits were made at the farm location and the land and buildings were inspected to determine a suitable plan of operation. The previous and present operations were discussed with the Saskatchewan Agologist responsible for the farm operation.

Several combinations of enterprises were developed and calculations made to arrive at a plan of operation that

would provide maximum employment and remain viable. exercise was complicated by the present market situations for grain, cattle, and hogs. Grain prices are high, however cattle and hog prices have not advanced enough to compensate ar the increased cost of feed and supplies. Market trends forcattle, hogs, and feed grain were studied; probable prices were selected and applied to a combination of enterprises that would be viable, utilize all the farm facilities, and movide maximum employment.

The plan that seemed to best achieve these of ectives is based on the original proposal developed by Saskatchwan Department of Agriculture farm management specialists. It has been updated to reflect changes in prices, costs, trent, and current circumstances. Data from the Saskatchewan FarmBusiness Manual, and current market and cost trends, were used to develop the plan presented below:

Farm Plan

Projected Farm Income Summary:

Total Farm Cash Receipts Total Farm Cash Expenditures Depreciation Net Farm Income	\$506,900 412,833 65,847 \$ 28,220
Source of Revenue:	
Market Hogs - 2800 x \$115 Slaughter Steers - 80 x 1050 x 80¢ Slaughter Heifers - 80 x 950 x 75¢ Surplus Hay - 1100 tons x \$55	\$322,200 67,200 57,000 60,500
Total	\$506,900

Summary of Operations:

Enterprise	Ca	sh Costs	Dep	reciation	I:	nvestment Level	Labo Hou		in. Men equired
Grain	\$	97,500	\$	22,055	\$	158,700	2,64	6 3 1	•
Hay		24,185		6,610		44,050	2,03		
Silage		2,723		1,252		8,350	50	7 4	
Farrow-									
Finish		111,385		21,680		243,500	7,00	0 3	
Cow-calf		13,120		13,250		193,000	2,50	0 1	
Feedlot		21,320		1,000		12,000	1,17	<u>0</u> <u>1</u>	
	\$	270,233	\$	65,847	\$	608,150	15,86	0 6	
General Mana	ager		•	•			2,50	0 1	
				•			18,36	0 7	

Estimated Labour Cost:

General Manager Full-time Employees Summer Employees	6	@	\$25,000 \$15,000 \$ 6,000	-	25,000 93,600 24,000
				s.	142.600

Employees Required - 7 full-time, 4 seasonal

Grain Enterprise

- Minimum Men Required - 3 for seed and harvest 1 normal

	<u>Size</u>	Times	Acres/Hr	Acres	Hours
Seed - Cultivator H.D Discer - Harrow Spray - Avadex - 400 gal - MCPA Harvest - 2 swathers - 2 combines - truck Stone picker	35' 50' 55' 70' 70' 20' 6601	1 1 1 1 1	17.5 13.5 30 25 25 11.5 6.0	1,650 1,650 1,650 1,530 1,530 1,650 1,650	122 55 62 62 72
Summerfallowing		-			
Discer in fall Discer Cultivator for H.D. Tandem Disc	30' 30' 35' 16'	1 1 3 1	16.5 16.5 17.5 8.0	1,530. 300 200 120	18

Tractors

155 HP

125 HP

90 HP

Production Barley - 1530 ac x 35 bus = 53,550 bus Oats - 120 ac x 30 bus = 3,600 bus

Labour 882 actual hours x 3 - 2,646 hours

Grain Cash Costs 1,950 acres @ \$50 = \$97,500

Grain Equipment

Tractors	\$ 127,500
Truck	18,700
Combines	63,400
Swathers	11,000
Discer	25,000
Cultivator	2,000
Tandem Disc	8,800
Harrows	5,500
Sprayer	4,000
Auger	1,500
Stonepicker	5,000
Grain Storage	25,000
Machine Workshop	10,000
	\$ 317,400

Average Investment \$317,400 ÷ 2 = \$158,700

Depreciation - Equipment (15%) 21,180

- Buildings (5%) 875

\$ 22,055

Alfalfa - Hay Enterprise

Production - 1.5 Tons x 1,000 ac = 1,500 Tons

Labour - 679 actual hours x 3 = 2,037 hours

Haying Operation - 4 Men Required

2 Mower-Conditioners 12' 1000 ac @ 5.5/hr = 181 hours 2 Balers 5.6 Tons/hr = 268 hours N.H. SP Bale Wagon 7 Tons/hr = 214 hours Operating Cost - $$14.70/Ton \times 1500 = $22,050$

Breaking

15' Tandem Disc - 125 ac @ 8 ac/hr = 16 hours

Operating Cost - $$5.62/hr \times 16 \text{ hours} = 90.00

Seed

7.2 lbs. Brome/2.7 lbs alfalfa/ac x 125 ac $(7.2 \times 1.24) + (2.7 \times 2.75)$

Equipment

 2 Mower-Conditions
 \$22,900

 2 Balers
 16,800

 1 Bale Wagon
 48,400

 \$88,100

Average Investment $38,100 \div 2 = $44,050$ Depreciation (15%) \$6,610

Silage Enterprise

Production

Clover - 2.4 T/ac x 120 = 288 Tons Oats - 2 T/ac x 10 = 20 Tons

308 Tons

Labour

169 actual hours x = 3 = 507 hours

Harvesting - 4 Men Required

Forage Harvestor @ 6.5 T/hr = 48 hours High Dump Wagon 1 truck Windrower 20'

Silage Harvesting Operating Cost \$7.26 per ton x 308 tons = \$2,236

Breaking

15' Tandem Disc 8 ac/hr x 120 ac = 15 hours Operating Cost \$5.62/hour x 15 hrs = \$84

Clover Seed

8 lbs @ 42¢/lb x 120 acres = \$403

Silage Equipment

Forage Harvestor \$ 10,000 High Dump Wagon 6,700 1 truck and 1 windrower from grain enterprise 16,700

Average Investment = \$16,700 ÷ 2 = \$ 8,350 Depreciation (15%) = \$ 1,252

200 Farrow-Finish Hog Enterprise

Labour - 7,000 hours. 3 men required

Production - 200 sows x 14 - 2,800 market hogs

<u>Investment</u> - Sows (200) \$ 40,000

- Boars (14) 3,500

- Buildings 270,000 Average Investment = \$200,000

- Equipment 130,000

Total Average Investment = \$243,000

Feed Requirements

Grain	- Sows/Boars - Market Hogs	11,375 bus 35,760 bus
	·	47,135 bus
Supplements	s - Sow/Boar Market Hogs	78,400 lbs 288,400 lbs

Cash Costs

(Home Grown Grain)

Supplements - Sow	\$	13,442
- Hogs		49,605
Utilities and Machine Use		18,818
Veterinary and Medicine		5,112
Insurance		4,378
Marketing		10,102
Building and Equipment Repair		4,400
Death Loss (3% x 1/3 V.C.)		913
Operating Interest		4,618
	\$:	111,385

Depreciation - Sow and Boar - \$5,180 - Buildings (5%) 6,750

- Equipment (15%) 9,750 \$ 21,680

Cow-Calf Enterprise

- Minimum Men Required = I

Labour - 2,500 hours

Production - 200 cows x 80% = 160 calves

Total Average Investment \$193,000

Feed Requirements

Cows -	or	2 Tons	x 200	=	400	Tons
Bulls -	Silage Hay - Hay 2.2	Tons x	8		360	Tons Tons

Cash Costs

Salt, Minerals and Vitamins Bedding (Cost of Baling Straw) Veterinary and Medicine Bachine Use Building Repair	\$ 1,600 1,250 1,800 1,450	63 Hours
Trucking, Marketing	720	
Fencing	400	•
Death Loss (2% x average value) Operating Interest - 12%	2,400 2,700 800	37 Hours

\$ 13,120

Depreciation - Cows
$$\frac{800 - 550}{5}$$
 x 200 \$ 10,000

Bulls
$$\frac{2000 - 900}{4}$$
 x 8 2,200 Buildings (5%)

\$ 13,250

Feedlot Enterprise

- 1 Man Required

Labour - 1,170

Production - 160 feeders x 600 lbs gain

 $\frac{\text{Investment}}{\text{- Equipment $\$ 50 x 160 = \$16,000}} = \frac{\text{average investment}}{\text{= \$12,000}}$

Feed Requirements

Grain 3,600 lbs x 160 feeders = 576,000 lbs Silage 2,250 lbs x 160 feeders = 180 lbs

Cash Costs

(Home grown grain)
Oats - 3,600 bushels, barley 9,150

Purchased grain - 3,035 bus x \$3.25 Bedding	\$ 9,860 840
Salt, Minerals and Vitamins	1,000
Vet & Medicine	1,160
Machinery (grinding, manure removal, etc.)	2,400
Feedlot Repairs	300
Trucking and Marketing	2,190
Death Loss (2%)	2,120
Operating Interest (20%)	•
2007	1,450
	\$21,320
	34T.34A

Depreciation - Buildings (5%) \$ 400 - Equipment (15%) 500 \$ 1,000

Required Farm Equipment

- 1981 Average Cost

Grain \$317,400 Hay 88,100 Silage 16,700

Total \$422,200

Employees and Training-

The employees required to operate the farm are as follows:

	<u>Full-time</u>	Part-time
General Manager	1	
Grain, Hay & Silage Enterprises	1	4
Cow-Calf and Feedlot Enterprises	2	
Farrow-Finish Hog Enterprise	3	
	7	4

The skills and/or training required by the employees are listed for each category as follows:

General Manager

This person should be experienced and capable with a good track record as a successful farm manager.

Grain, Hay and Silage Enterprises

One full-time employee should be experienced in the operation, maintenance, and repair of farm equipment. These skills are developed over several years working on a large well managed grain and livestock farm. Attendance at farm mechanics and other agriculture short courses would be beneficial.

The four seasonal employees should be able to operate trucks, tractors, and farm equipment used for the grain and forage enterprises. These skills are usually developed while working on farms during the seeding, haying, and harvest seasons. Employees with basic driving skills can train on the job.

Cow-Calf and Feedlot Enterprises

The employee in charge should be an experienced cattleman with a record of the successful management of a large integrated cattle operation.

The second employee should have the desire to work with cattle and some related experience that will enable him to receive training on the job.

Farrow-Finish Hog Enterprise

The employee in charge should be a swine herdsman with several years of experience gained while employed on well managed swine enterprises.

The two employees assisting the swine herdsman should have some experience with pigs and be willing and able to train on the job.

Management Structure

The farm business should be incorporated under either the province's co-operative legislation or under the Business Corporations Act. A seven-member board of directors is suggested as follows:

Board of Directors:

Four directors who are members of AMNSIS. Three directors who can act as consultants; and may include at least one agrologist, an experienced successful farmer, and someone involved in agri-business.

This board should be appointed for a minimum three-year term in order to develop long range plans for the farm without interference.

Future Farm Development

When the Lebret Farm Corporation is established and begins earning a profit, consideration may be given to assisting AMNSIS members who wish to establish viable farms.

The farm corporation could provide training for future farmers who may wish to use federal and provincial programs such as the Farm Credit Corporation, Farmstart, Saskatchewan Land Bank, the Special ARDA Program, etc.

METIS SOCIETY FARM LESTOCK, SASKATCHEWAN

Present Situation

This quarter section is located on #15 Highway, three-quarters of a mile southeast of Lestock on SW 5, Twp. 27, R. 14, W 2.

The quarter section originally contained 160 acres but is crossed by the C.N.R. and #15 Highway, running parallel to each other from the northwest corner to a point midway on the east boundary. These rights of way occupy about 20 acres and divide the quarter section into two separate areas of about 40 acres on the north side, and about 100 acres on the south side.

The northern portion is relatively level but is unsuitable for cultivation because it contains five old houses and several old foundations as well as some sloughs and bush.

The southern portion has many sloughs and some bush, plus a few high gravelly knolls interspersed with level areas. It is not suitable for cultivation.

Both parcels of land appear to be vacant and have reverted back to grass and bush.

Review of Existing Studies

A consultant appraised the agricultural potential of this quarter section in 1979. He wrote a detailed factual report, setting out his observations, recommendations, and conclusions.

Since the report sets out most of the possible uses for the land and covers capital requirements, economics, and general observations for each enterprise, AMNSIS can use it as a guide to make decisions on proposed developments.

Possible Development Opportunities

The consultant's recommendations and observations are well thought out and presented. The significant portion of his report follows:

"Possible uses:

- (1) Hog operation farrow to finish.
- (2) Small feedlot either backgrounding calves or finishing operation on fat cattle.
- (3) Poultry enterprise commercial egg production or hatching egg production.
- (4) Dairy operation fluid milk production for fresh market and/or industrial milk for cheese manufacturing.
- (5) Greenhouse supplying bedding plants.

 Truck garden operation vegetables to local trade.
- (6) Mushroom barns supplying larger urban market (Regina).

Project analysis:

Hog Operation - Confinement rearing of swine is a highly specialized field requiring a large investment in buildings and associated works but requiring a relatively small land area.

It is anticipated such an operation would purchase necessary feed supplies as "complete feed" from the various sources available throughout the province. There is sufficient area for waste disposal and marketings of butcher hogs would be through the Saskatchewan Hog Marketing Commission.

Capital Requirements - In building and associated works capital requirements will approximate \$1,000 per sow. Using this rule of thumb - the operation size would dictate the capital required i.e. 100 sow operation - \$100,000.

Purchase of breeding stock - initially - will average close to \$300 per head. Thus buildings and works plus breeding herd will require capital approximately \$130,000.

Economics - Anticipated returns would depend on efficiency however calculations follow based on sows producing 15 market hogs per year:

100 x 15 = 1500 selling at 60¢ lb x 170 lb carcass or average selling price of \$102 per hog.

1500 x 102 = \$153,000 per year gross income.

Cost of Operation - Present feed prices indicate a feed
cost of 40¢ per lb or \$68 per hog. Capital costs (bldgs., etc.)

\$130,000 ÷ 20 years ÷ 1500 = 4.33 per hog Maintenance @ 10% = 8.50 per hog Interest on Investment 10% = 8.50 per hog Utilities and Insurance = 4.67 FIXED COSTS = 4.33 per hog

At the cost of production of \$90 per hog and a return of \$102 the returns are approximately 12.00 to cover the cost of labour or a return to management of $1500 \times 12 = $18,000$ per year. This would only approximate 1 man year of labour and it is highly doubtful one man could handle a 100 sow farrow to finish operation:

The variables are - (a) a drop in feed prices.

(b) an increase in selling price.

Should either (a) or (b) take place the economics would change dramatically.

Feedlot - Approximate costs - fixed asset - for setting up a feedlot would be approximately \$40.00 per head capacity - using the minimal shelter standards. A 400 head feedlot would cost about \$16,000 in fixed improvements i.e. watering systems, feeding systems and corrals, sorting pens and limited buildings.

The major cost of a feedlot operation would be the purchase of stock and feed. At today's prices - the economics are doubtfu

400 calves @ 400 lbs = 160,000 lbs @ 1.10 = \$176,000.

Feed, vet supplies and labour along with interest, depreciation and death loss create a cost of gain of approximately 75¢ a pound gain = 800 lbs per animal x 400 animals = 320,000 lbs @ 75¢ = \$240,000.

By the time market weight has been reached the investment is \$416,000 on the 400 head of stock. However since the death loss is calculated at 5% at sale time we only have 380 animals to sell

 $380 \times 1200 \text{ lbs} = 456,000 \text{ lbs of beef.}$

To break even with investment of \$416,000 on 456,000 lbs of beef a selling price of 91¢ per lb must be achieved.

At that price - carcass beef would have to sell for \$1.46 per 1b which may boost consumer prices to the point of buyer resistance - this would have the demand reduced to the producer.

A feedlot is a high risk venture unless it is operated as a market for otherwise unmarketable feed supplies. Even then history shows it is a high risk venture.

Poultry Enterprise - Poultry requires a moderately high capital investment in buildings and associated works (feeding systems - watering systems - environmental control systems, etc.

In commercial egg production - a "quota" must be acquired as the egg industry is protected, by legislation, from over-production and subsequent financial losses to producers.

In hatching egg production - there is no quota and the mechanism of supply - demand determines prices and hence returns to producers.

At the present time - there is a shortage of hatching eggs for the meat strain "White Hubbard" which are presently three times the price of commercial eggs i.e. \$3 to \$3.25 per dozen. There are two main reasons for this high price:

- (1) Cost of production in the form of additional buildings -blood testing; banding; and general management is close to double the cost of commercial egg production.
- (2) The hatching egg <u>season</u> is short and the breeding stock is costly in that the heavy meat breeds have a higher feed cost per dozen eggs produced. On top of that, they lay fewer eggs.

At the present time most of the broiler hatching egg industry is in the U.S.A. Eggs are air freighted to Canadian hatcheries and the day-old chicks are dispersed from these establishments.

Bergs Hatcheries in Russell, Manitoba, are prepared to assis with design and management training for anyone wanting to get started in the hatching egg production business. Further they

will contract to take entire seasons production at a predetermined price. In this way the producer knows what the end price will be rather than gambling on the ups and downs of the market.

A visit to the hatcheries is a must before considering entering this field of endeavours as flock size will determine production costs.

Fluid Milk Dairy - Saskatchewan is in a unique position of not over-producing its annual share of the national milk quota. In fact the Dairy Commission has been actively promoting the industry to attract more producers to fill the market potentials.

As with other intensive livestock enterprises setting up a dairy requires large amounts of capital investment. It also requires a firm commitment to the project as lactating cattle require constant care and there are no "days off". In effect it is a year round - 7 days a week commitment that is required. Before considering this type of operation - the "people" who would be responsible for running the operation, must be identified and commitments determined.

If not already experienced in dairy operations the operators should undertake a 6-month training course on dairy herd management to ensure a good operation from the outset.

Economic Analysis - Inasmuch as there is a milk marketing board which sets the price for both fluid milk and manufacturing milk, there is a "potential" for "profit" in the dairy industry. This potential exists basically for the "above" average operators that have good management and consequent high production from

A low producing herd is a "money loser" from the outset.

A ball park figure for establishing a diary - including buildings and associated infrastructure, the producing herd and equipment, is in the neighbourhood of \$3000 per cow, i.e. a 100 cow unit will cost approximately \$300,000 to establish.

Green Housing & Truck Garden Operations - This combined operation has two critical factors:

(1) Minimum cost heat for the greenhouse.

(2) A ready market for produce - usually dependent on a large urban population, if the scale of the operation is to be greater than a "family" business.

Observation - There are numerous small scale greenhouse operations - usually run as a family business, scattered through out the province: These supply the local rural markets with bedding plants in the spring and are operational from mid February start up to mid June close up. The cut flower and potted plant segments of the industry are usually associated with the larger urban centers where a market exists on a year-round basis.

Producing "hot house" vegetables for market is economical only when fuel/waste heat is both cheap and plentiful.

Garden produce is a variable economic enterprise. In rural areas many families have their own "background" gardens in season hence the market is limited to off season - and vegetables which can be readily stored - basically root crops such as potatoes, carrots, beets, turnips, parsnips and the exception - squash.

Today's modern home is usually too warm for root vegetable storage - except for squash hence this market is available primarily from November to June in all areas. Adequate storage is essential. Because of the weather, irrigation is a must for such a venture to both ensure adequate water for growing crops and to guard against unseasonal frost possibilities.

Modern horticulture is a highly technical and sophisticated branch of agriculture. The use of pesticides and herbicides is common and usually without regard to environmental damage which may occur over a long period of time.

Mushroom Barns - As with greenhousing, mushroom growing requires heat - lots of it; and good water. As light is not required, mushroom cellars (semi-underground) are considerably easier to heat than greenhouses. On the other hand, there is no capture of "solar" energy unless special costly structures are comtemplated.

As mushrooms are a "specialized" crop there are few do-it-yourself growers hence the market is always open to the producer.

The economics of mushroom production depend greatly on the type of structure and cost of heat.

There are no "automated" operations in the industry hence it is a labour intensive venture and a skilled labour force is essential at peak production times.

Summation:

Whichever endeavour is contemplated for the subject area several technical investigations need to be carried out. Some if not all, of the investigations can be made with the aid of agriculturists from the Department of Agriculture. Any building should be "engineered" by specialists to get maximum efficiency for the time and money spent.

Poor planning has been the demise of many so-called sound enterprises."

The highly intensive enterprises, suitable for the limited land areas, all require substantial capital investment and experienced dedicated people who want to work in the agriculture business.

Alternative Development

The land could be used as a focal point for the development of a conventional mixed farm by one family. It would provide a good location for the farmstead as it is close to town on a main highway. Additional land might be rented from the Saskatchewan Land Bank and developed with assistance through the Farmstart Program. The federal Farm Credit Corporation, and/or the Special ARDA Program, might also be used as a source of capital.

This alternative development would not require a large capital investment. If an experienced farm family with a desire and commitment to develop a viable farm could be found, they would very likely succeed.