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ABATTOIR FEASIBILITY STUDY

and

PRELIMINARY AGRICULTURAL DEVELOPMENT STRATEGY

YUKON, TERRITORY

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Prepared by
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Whitehorse, Yukon

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1.0 EXECUTIVE SUMMARY

INTRODUCTION:

This report examines two related aspects of the Yukon's agricultural industry, namely

* the feasibility of an abattoir, and

* the development potential of the livestock industry.

Yukon farmers cannot produce meat in significant quantities without an abattoir, as they would have no way of marketing the meat. But, on the other hand, no one in the private sector is going to establish an abattoir since there are very few animals to process. The objective of this study is to find options that could break this cause-and-effect cycle and contribute in the longterm to a viable meat industry in the Yukon.

MARKETS:

The average Canadian consumption of beef, pork and chicken is 190 pounds per person a year. Yukoners appear to reflect the Canadian average, consuming over 4,900,000 pounds of these meat products annually[1]. Tourists and visitors to the Territory consume an additional 490,000 pounds of these meats. Although rabbit and lamb are produced and sold in the Yukon, their contribution to total sales is negligible. Processing of these animals is equivalent, in terms of equipment, process and costs to chickens and hogs, respectively.

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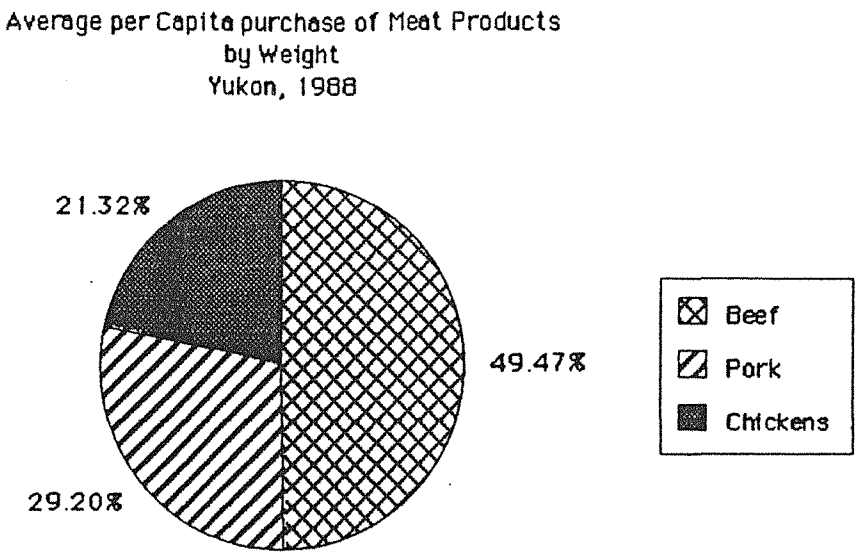
[1] Information about the local market has been developed from a series of interviews with those associated with the meat industry in the Yukon, and from observation of the marketplace by members of the study team. A complete listing of all those contacted is attached as an Appendix to this report.

Graph 1-1 shows the break down of consumption by meat types for the Yukon.

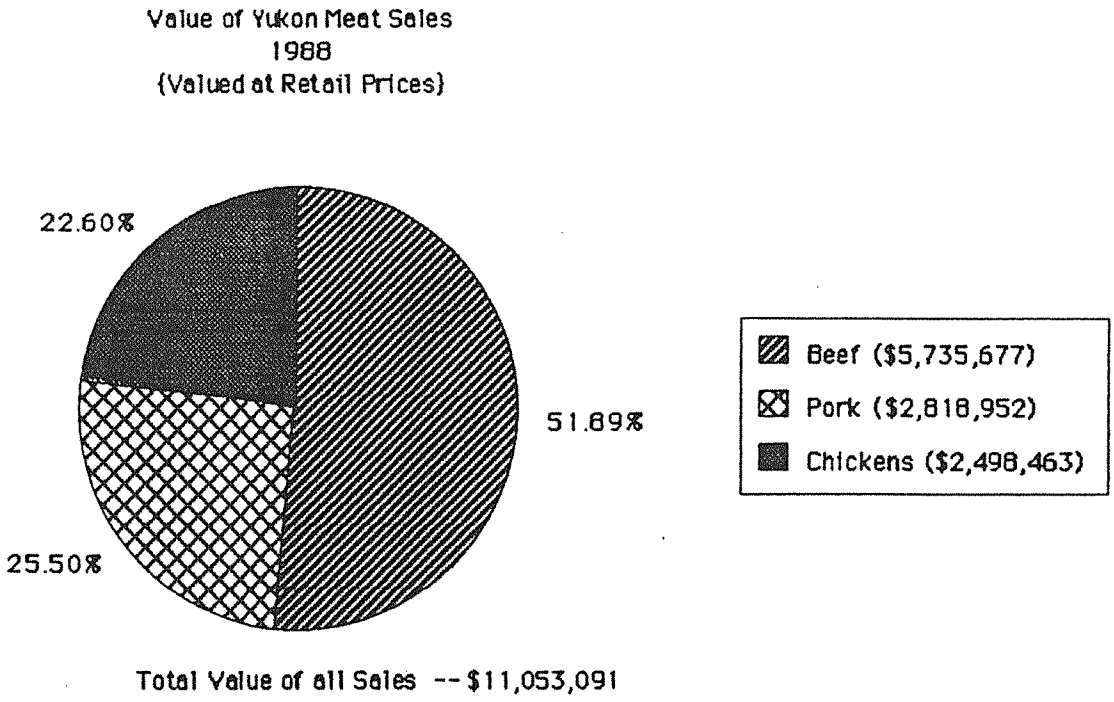
GRAPH 1-1



Annual sales of beef, pork and chicken in the Yukon exceed $11 million. Of that amount, less then $100,000 is spent on locally produced meat. The amount of money retained in the Yukon from value-added processing or marketing is low for meat products, and it is estimated that $7 to $8 million dollars leaves the Yukon annually to southern producers and processors of meat.

The following graph depicts the estimated value of meat sales in the Yukon.

GRAPH 1-2

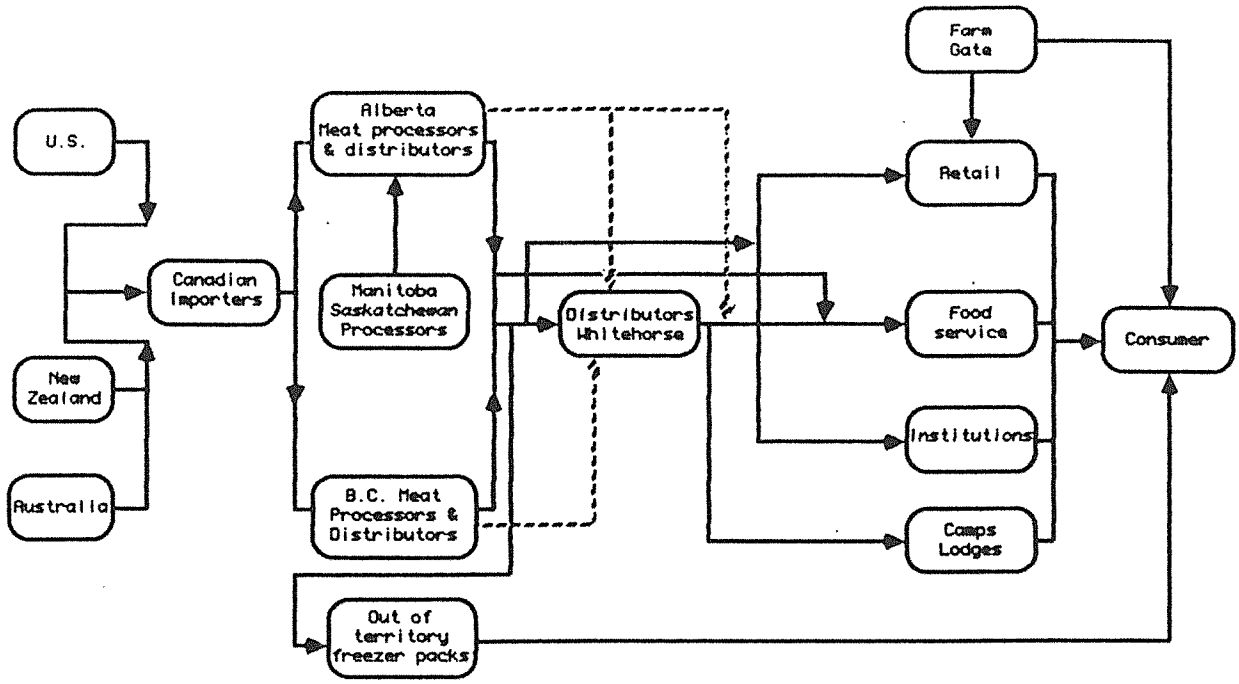


SOURCES OF SUPPLY:

Most of the meat consumed in the Yukon is imported from Alberta, with lesser quantities imported from southern B.C.. The distribution points make meat and poultry available from other provinces such as Quebec, Ontario, Manitoba and Saskatchewan, as well as products imported from Australia, New Zealand and the USA.

A very small percentage of the local market,--less than 1%,--is serviced from local farm slaughter of cattle, hogs, poultry, and sheep. These products are predominantly sold directly (farm-gate sales) for the home freezer. The following illustration shows the distribution system for Yukon meat products.

Whitehorse / Yukon
Meat and Poultry Distribution



CARCASS IMBALANCE:

Beef and pork marketed in the Yukon are not sold in carcass balance. There is a demand for extra beef loins, hips, and ribs, but little demand for briskets, plates and shanks. In the case of fresh pork, the demand is for loins, and spare-ribs, with greatly reduced demand for fresh legs, shoulders, and bellies. There is practically no demand for fresh headmeat, jowls, tails, feet, and bellies. The small market for lesser valued meat cuts (shanks, plate, brisket, jowls and bellies) limits the number of carcasses that commercial operations would be willing to purchase. Without a substantial change in the buying habits of Yukon consumers commercial operations could only buy local pork and beef to a maximum of 10%, of their demand.

There is also an incremental demand for chicken legs and breasts; however a far greater share of the retail chicken market is available to marketers of whole birds. In addition, weekly demand can vary by as much as 500% if chickens are a featured special.

PACKAGING:

The market is serviced with block-ready boxed and vacuum-packed beef. Virtually all fresh pork is purchased from suppliers in the form of trimmed primal cuts from which consumers' chops or roasts can be readily prepared by the retailer or food service operator. The majority of chickens for domestic consumption are purchased as full birds, either ice-packed or in modified-atmosphere packaging.

QUALITY STANDARDS:

Most retailers and some restaurants have experimented with ungraded beef from the United States of America and New Zealand. They have found the results to be unsatisfactory. The demand from both retail and food service outlets continues to be for Canada Grade A certified beef. A strong consumer preference for Grade A meat is perceived by the retailers and there is some reluctance on their part to challenge the Canada Grade A rating system.

In summary, the population of the Yukon in general, and of Whitehorse in particular, is well served with respect to its meat and poultry needs: quality is of a high standard; there is ample choice; and prices appear competitive.

OPPORTUNITIES:

The feasibility of an abattoir in the Yukon depends on the availability of animals for slaughter, principally cattle and hogs, but also poultry and wild game -- elk, reindeer, buffalo, pheasants.

The 1986 Census of Agriculture reported limited populations of farm animals in Yukon. Given a lack of farm animals and the carcass imbalance of meat purchased, there will be severe limits on the number of animals that could be slaughtered. As a shortterm objective (up to five years), it is prudent to use an objective of 5% market penetration for Yukon raised meats. In the longterm (ten years and more), a reasonable objective would be a 10% market penetration.

To capture 5% of sales would require weekly carcass marketings as follows:

CATTLE	4
HOGS	8
CHICKENS	380

INTERNAL CONSTRAINTS:

The sale and utilization of by-products from a Yukon abattoir will not be possible, to the same extent as at southern abattoirs. The sale value of such things as hides, edible and inedible viscera, blood and bones are estimated at $85.00 per head in Alberta. This return to the producer or processor is not available here and becomes a cost when local meat competes with imported meat.

In the meat slaughter industry, an abattoir must process approximately 1000 head a week to compete economically. The total number of cattle or hogs required to satisfy the entire weekly Yukon demand can be slaughtered and dressed in less than one hour at any one of several Alberta processing plants.

EXTERNAL CONSTRAINTS:

There is a world-wide over supply of beef and other meats. This is the result of agricultural subsidy programs in Canada, United States of America, Europe, Australia and New Zealand. European beef is subsidized as much as 75 cents a pound. The current drought has forced cattlemen to sell cattle sooner than they would prefer to and has exacerbated the over supply conditions.

All production units -- feed lots, cow/calf operations or hog farrow to finish are growing in size everywhere. This growth in the size of production units is the result of economic pressures and economies of scale which are being realized at these larger sizes. This trend towards larger production units and the consequent cheaper production costs combined with the problems of subsidization places significant if not insurmountable constraints on the development of a Yukon meat industry.

ABATTOIR ALTERNATIVES

Three types of abattoirs are described, a small facility that would pass a federal inspection, a smaller facility that could be retrofitted into an existing building and that would meet Territorial inspection standards, and finally a mobile facility that would not meet Territorial or Federal standards. Estimates of the construction, equipment, and operational costs were prepared and the economics of each option tested under various assumptions.

The results of these tests are presented in the cost per animal to process, if the farmer paid these processing costs the abattoir would break-even financially.

The processing costs derived from each of the financial models has to be compared to southern prices for custom slaughter of cattle. Custom slaughter costs vary, but $50 per head of cattle is a reasonable figure to use for comparison.

PERMANENT FACILITY -- FEDERAL STANDARDS:

A small slaughter, chill, and primal cutting operation for both beef and pork could be set up on the Alaska Highway outside of Whitehorse. The site would need suitably drained soil, a drilled well, a septic tank and field, and access to the municipal dump. The facility would require 2250 sq. ft. of space to meet federal standards. Building and equipment costs are estimated at $350,000 to $450,000. Two employees would be required to operate the plant. Options 1 to 4 describe the financial operation of this facility under varying assumptions.

Option 1 All capital and working capital are fully financed by interest bearing debt and there is no cash recovery from by-products. Based on a throughput of 200 cattle and 800 hogs, the costs of operating this facility would be $0.62 per pound, or $357 per head of cattle and $108 per hog.

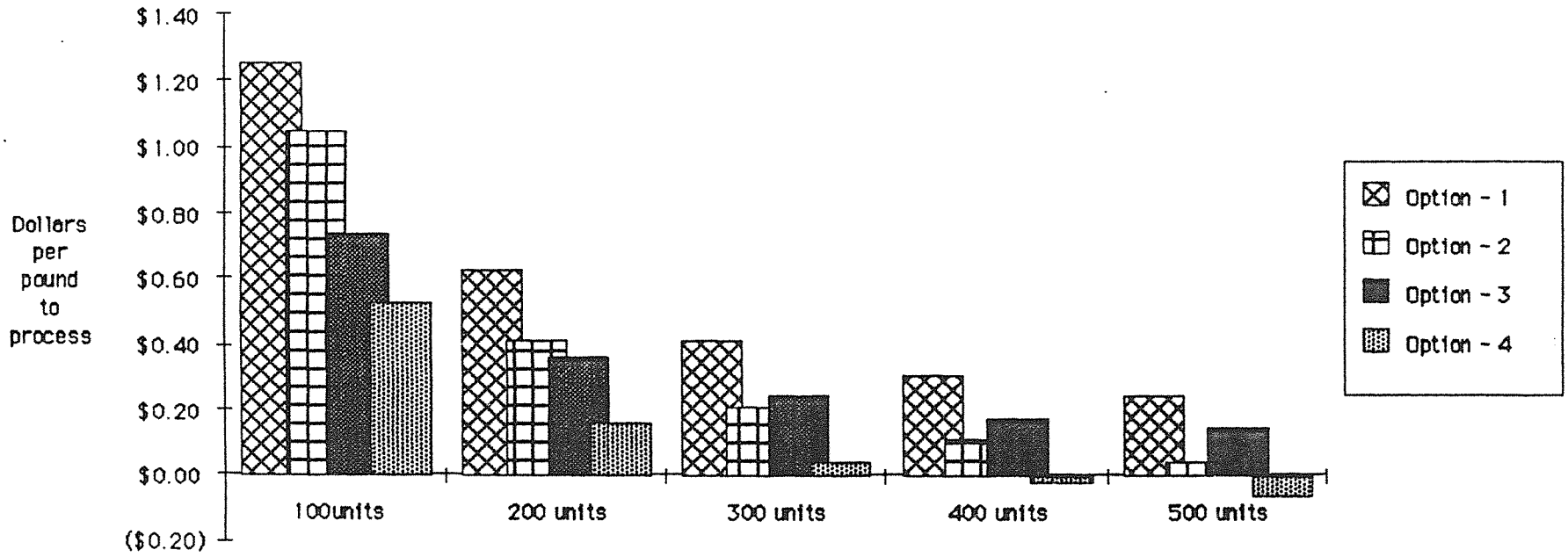
Option 2 All capital and working capital are fully financed by interest bearing debt and by-products are sold at southern market prices. Based on a throughput of 200 cattle and 800 hogs, the costs of operating this facility would be $0.41 per pound, or $237 per head of cattle and $72 per hog.

Option 3 All capital and working capital are provided by grant and there is no cash recovery from by-products. Based on a throughput of 200 cattle and 800 hogs, the costs of operating this facility would be $0.37 per pound, or $212 per head of cattle and $64 per hog.

Option 4 All capital and working capital are provided by grant and by-products are sold at southern market prices. Based on a throughput of 200 cattle and 800 hogs, the costs of operating this facility would be $0.16 per pound, or $92 per head of cattle and $28 per hog.

The graph following compares the financial performance of the above options at varying rates of production (throughput).

COMPARISON OF OPERATIONAL OPTIONS
FOR FEDERALLY APPROVED ABATTOIR
Option 1 Fully burdened - no byproduct recovery
Option 2 Fully burdened - full byproduct recovery
Option 3 No debt - no byproduct recovery
Option 4 No debt - full byproduct recovery



Animal units are equal to 1 head of cattle and 4 hogs

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REGIONAL FACILITY - TERRITORIAL STANDARDS:

Another possible type of facility is a regional on-farm abattoir that does not conform to federal standards. This facility would be smaller requiring a minimum of 1100 square feet. The one used in this study, for example, has been retrofitted into an existing barn by using liner walls and installing adequate sewer and water service. Building and equipment costs are estimated to be $80,000. This facility is physically smaller then the facility described in options 1 to 4. It has less equipment and has only one part-time operator. As a result of these limitations the potential throughput is reduced from that of the federal facility described earlier. Options 5 to 8 describe the financial operation of this facility under varying assumptions.

Option 5 All capital and working capital are fully financed by interest bearing debt and there is no cash recovery from by-products. Based on a throughput of 50 cattle and 200 hogs, the costs of operating this facility would be $0.53 per pound, or $306 per head of cattle and $93 per hog.

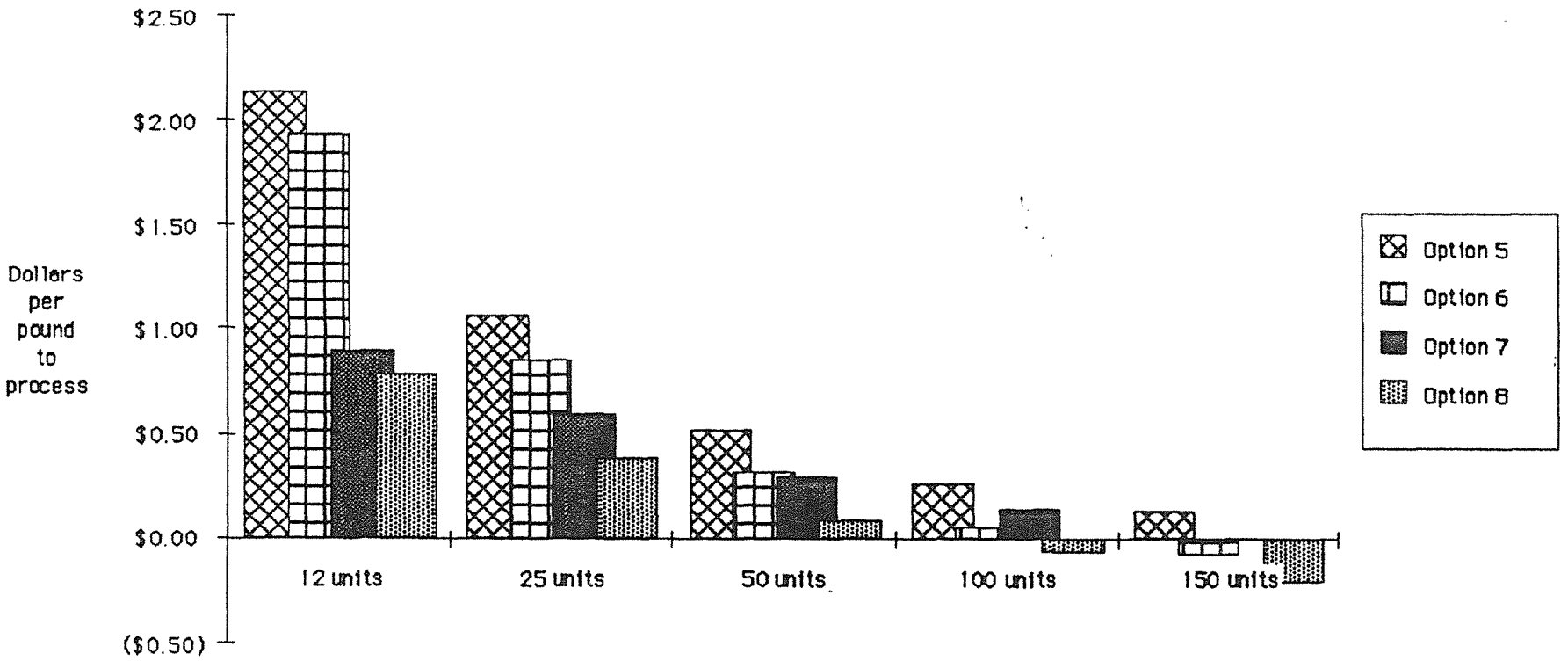
Option 6 All capital and working capital are fully financed by interest bearing debt and by-products are sold at southern market prices. Based on a throughput of 50 cattle and 200 hogs, the costs of operating this facility would be $0.33 per pound, or $187 per head of cattle and $56 per hog.

Option 7 All capital and working capital are provided by grant and there is no cash recovery from by-products. Based on a throughput of 50 cattle and 200 hogs, the costs of operating this facility would be $0.30 per pound, or $173 per head of cattle and $52 per hog.

Option 8 All capital and working capital are provided by grant and by-products are sold at southern market prices. Based on a throughput of 50 cattle and 200 hogs, the costs of operating this facility would be $0.09 per pound, or $53 per head of cattle and $16 per hog.

The graph following compares the financial performance of the above options at varying rates of throughput. At high levels of throughput, double to triple the design capacity the costs per unit of production approaches what is charged in southern Canada. Although these volumes of throughput are theoretically possible, in practice they may not materialize.

COMPARISON OF OPERATIONAL OPTIONS
FOR REGIONAL ABATTOIR
Option 5 Fully burdened - no byproduct recovery
Option 6 Fully burdened - full byproduct recovery
Option 7 No debt - no byproduct recovery
Option 8 No debt - full byproduct recovery



Animal units are equal to 1 head of cattle and 4 hogs

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MOBILE ABATTOIR:

A third alternative would be to have a mobile slaughterhouse which would move to where ever there were hogs, cattle and domesticated game to be processed. This equipment could take the form of a kill-and-chill mobile or a kill-only mobile. To test the economics of this type of operation the cheapest facility to build and operate -- a kill-only facility was used. This type of facility is severely limited as to the throughput levels that can be achieved. A great deal of time is spent in moving from site to site. As a result of these limitations the potential throughput is reduced from that of the federal facility described earlier. Options 9 to 12 describe the financial operation of this facility under varying conditions.

Option 9 All capital and working capital are fully financed by interest bearing debt and there is no cash recovery from by-products. Based on a throughput of 100 cattle and 400 hogs, the costs of operating this facility would be $0.46 per pound, or $266 per head of cattle and $81 per hog.

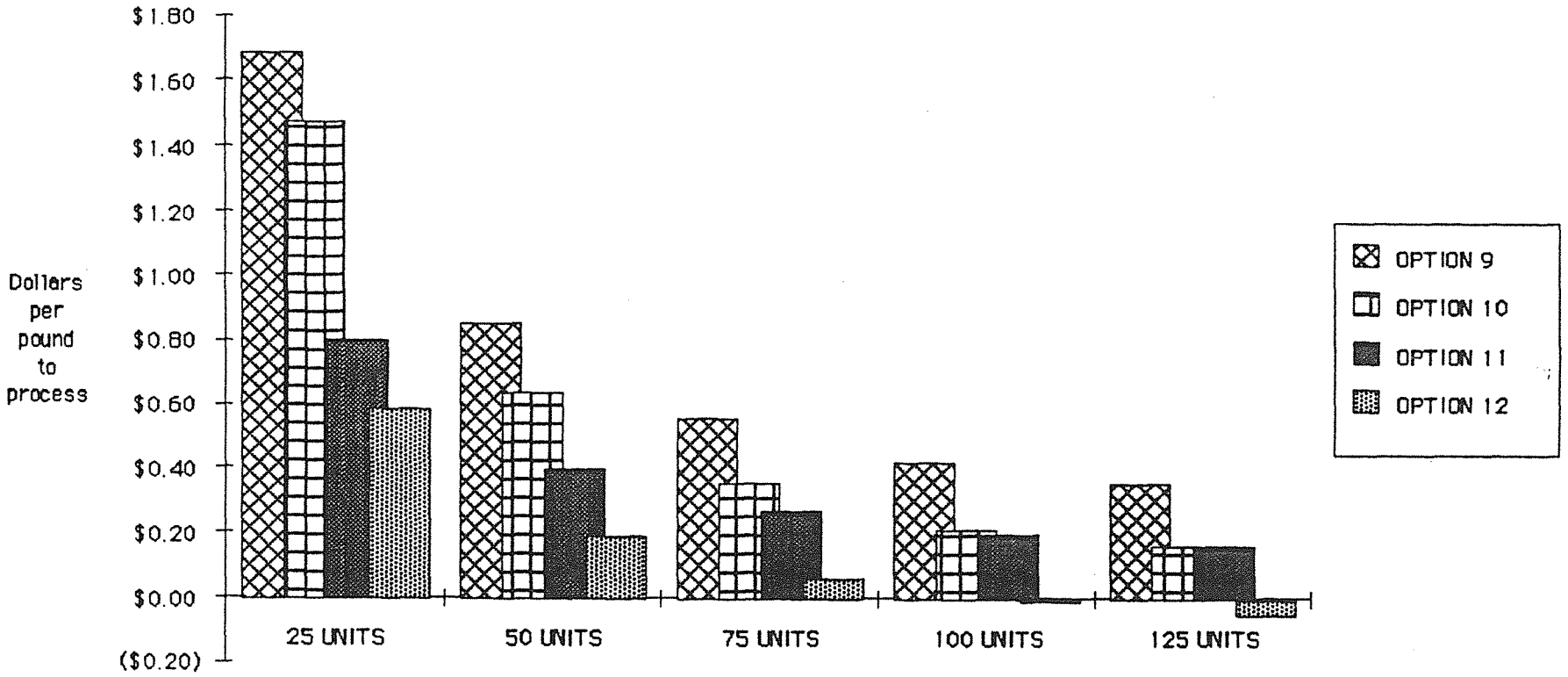
Option 10 All capital and working capital are fully financed by interest bearing debt and by-products are sold at southern market prices. Based on a throughput of 100 cattle and 400 hogs, the costs of operating this facility would be $0.26 per pound, or $146 per head of cattle and $44 per hog.

Option 11 All capital and working capital are provided by grant and there is no cash recovery from by-products. Based on a throughput of 100 cattle and 400 hogs, the costs of operating this facility would be $0.20 per pound, or $115 per head of cattle and $35 per hog.

Option 12 All capital and working capital are provided by grant and by-products are sold at southern market prices. Based on a throughput of 100 cattle and 400 hogs, the costs of operating this facility would be covered by the recovery of by-product sales leaving a slight surplus of $0.01 per pound to cover depreciation expenses. The surplus revenue per head of cattle would be $4.98 and $1.51 per hog.

The graph following compares the financial performance of the above options at varying rates of throughput. At higher levels of throughput, approaching double the design capacity the costs per unit of production approaches what is charged in southern Canada. Although these volumes of throughput are theoretically possible, in practice they may not materialize.

COMPARISON OF OPERATIONAL OPTIONS
FOR mobile ABATTOIR
Option 9 Fully burdened - no byproduct recovery
Option 10 Fully burdened - full byproduct recovery
Option 11 No debt - no byproduct recovery
Option 12 No debt - full byproduct recovery



Animal units are equal to 1 head of cattle and 4 hogs

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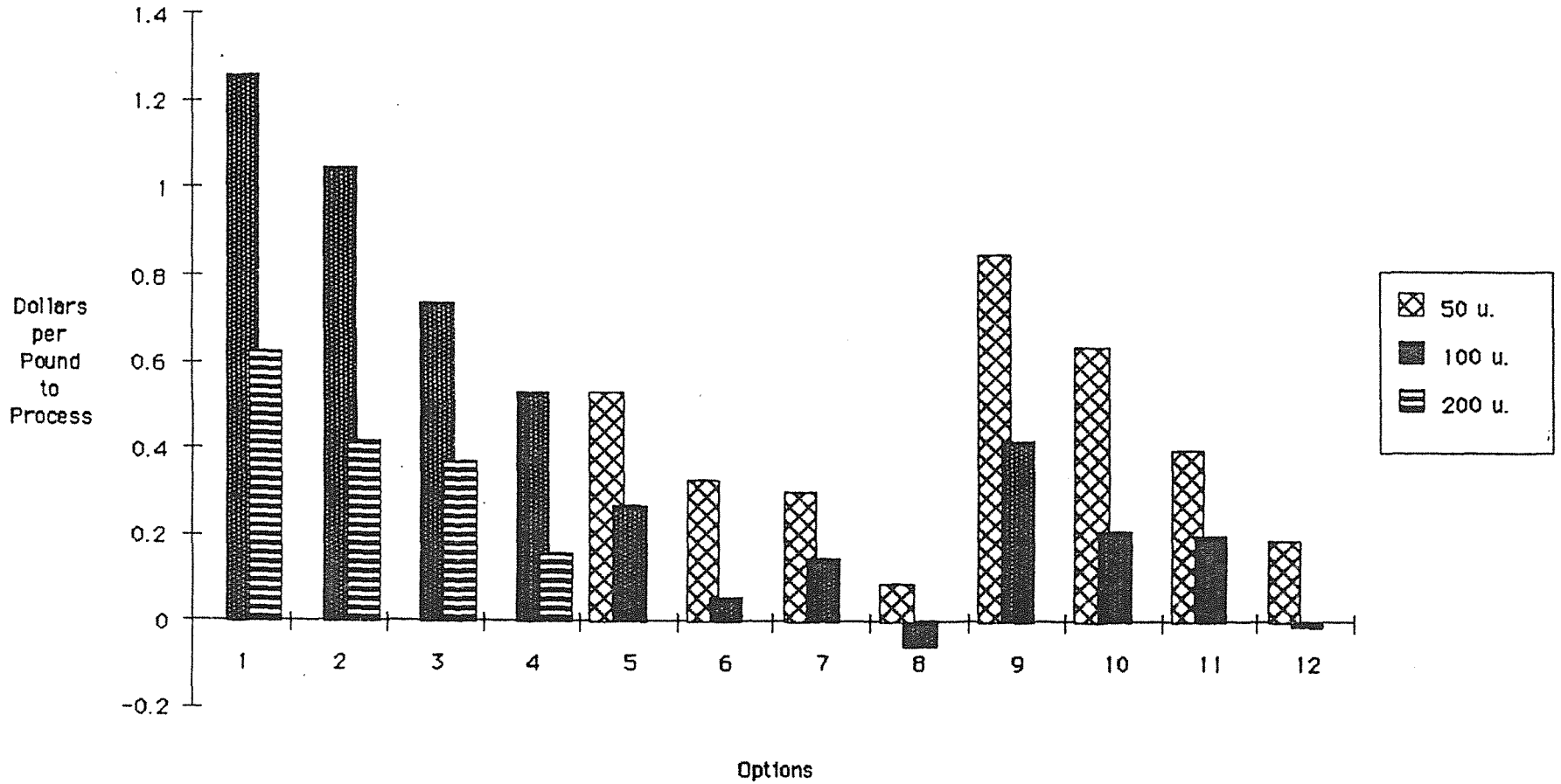
SUMMARY OF OPTIONS:

The processing costs of each of these options are presented in the graph on the following page (Comparison of Throughput Costs). As efficiencies are available with greater volumes of throughput each option is tested at throughput volumes varying between 12 to 500 animal units. Southern abattoirs charge about $50 per head or about 9 cents a pound (finished weight) for custom killing.

In the twelve options, processing costs range from a high of over $1.25 per pound (low efficiencies and low volumes) to a point where an abattoir operator would be willing to pay to slaughter animals (high efficiency and high volumes). For a high efficiency/high volume abattoir the resale of by-products would result in sufficient revenue to cover the operational costs and generate a slight profit. Within the Yukon it is doubtful that high efficiency and high volume could ever be achieved.

Only the costs in options 6,8, and 12 come close to being comparable to southern facilities. The common element in these three options is the resale of by-products at a value equal to that which would be obtained in the south. The assumption of equal resale values for by-products is not realistic in the near term. Two of the these options also require grants to cover the costs of all capital items.

Comparison of Throughput Costs
for all Options
for Three Levels of Utilization
("u." indicates animal units 1 head of cattle to 4 pigs)



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AGRICULTURAL DEVELOPMENT STRATEGY

Climate:

Yukon has a slight climatic disadvantage over other areas that produce red meat. It is drier and colder.

Land Base:

Yukon possesses an adequate land base to satisfy its own red meat requirements. The total consumption of beef and pork in Yukon can be supplied from less than 100,000 of the suitable 150,000 acres. Only a small fraction of this land is in production and a major land development program would be necessary to support a growing livestock industry.

Existing Operations:

In the past few years cattle have been declining in number. This fact probably reflects the prices Yukon producers are able to get for farm gate sales of beef as compared to their costs of production. Beef has become more price competitive as demand for it has declined.

On the other hand, a hog farrow-to-finish[1] operation is being established, a commercial sheep ranch is developing, and several farmers have invested heavily in game ranching. With the exception of game ranching, the Yukon's meat raising operations face significant competition from outside sources. Southern operations do not face major land clearing costs, high transportation costs, high energy costs, or restricted demand for their off-grade products, by-products or lesser value meat cuts. More importantly, southern operations can benefit from economies of-scale that will never be possible in the Yukon. The Yukon does not have any substantive

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[1] A hog farrow to finish operation has brood sows that produce weanling pigs that are then feed to maturity and marketed.

programs for agricultural development or subsidy. Our southern neighbours have agricultural development programs (capital granting), subsidized loans programs, farm income insurance programs, feed assistance programs, tax rebate programs and meat price stabilization programs.

Game ranching, in particular with elk and reindeer, appear to offer positive returns to the farmer. This component of the agricultural sector is new in Canada and in the Yukon. The steady decrease in the number of cattle and increase in the deer population, indicates a shift in the industry. Game farmers can derive income from several sources: sale of animals as breeding stock (to zoos and other farmers); sale of premium-priced game meats; and the sale of antler. Land development costs are reduced for game farms, as the animals can utilize local browse, therefor extensive clearing and pasture development is not necessary. In fact, management techniques appear to be evolving to encourage and promote local browse. Reduced land development costs are to some degree off-set by increased fencing costs. Canada is still a net importer of deer meat (approximately 10 million pounds a year from New Zealand) and the demand in Canada is far from been satiated. With tourists consuming close to 500,000 pounds of meat annually in the Yukon, ample opportunity exists for a niche game-meat market to be developed. A herd of 700 to 800 deer would be required to provide 50,000 pounds of meat annually or 10% of the tourist meat demand. Lesser valued game-meat cuts could be made into sausage and jerky.

Structural Considerations:

The costs involved in operating and maintaining a viable agricultural industry are likely to be high. The following items contribute to those high costs:

* costs associated with transporting goods to, from and within the territory, are significant;

* none of the areas with agricultural land potential are near the major market of Whitehorse; and

* the Territory lacks an infrastructure to support a developing agricultural industry.

OPTIONS FOR DEVELOPMENT:

Cost/returns models and economic models of selected size beef enterprises (cow/calf), hog enterprises (farrow to finish) and poultry enterprises (broiler) were constructed. The cost/returns model examined a fully developed operation and tests it to see if it could produce enough revenue to pay the investment cost and provide for a wage to the farmer. The economic model traces the development of a farm operation to show the costs of development as compared to the value of the operation to the farmer.

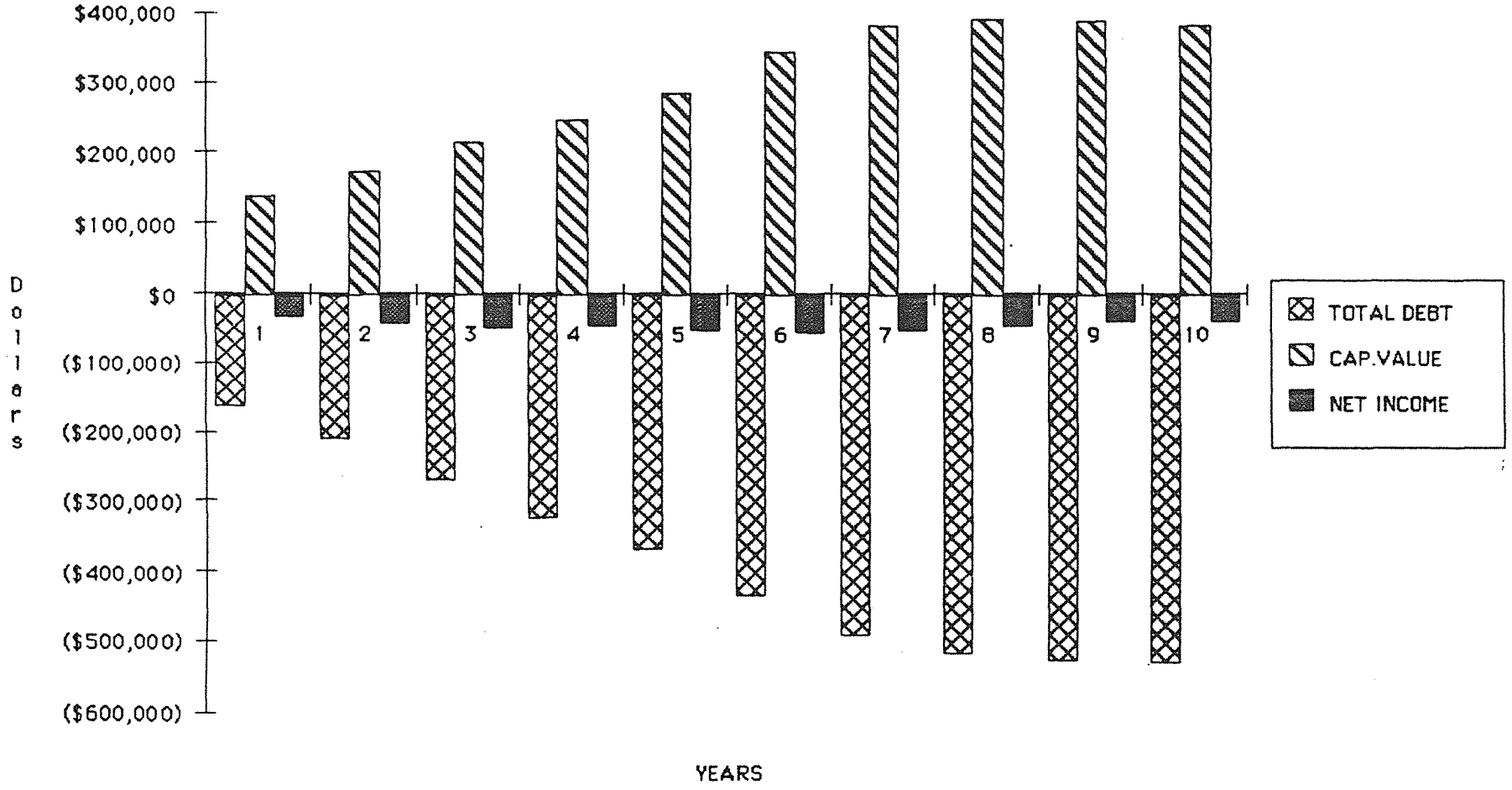
BEEF ENTERPRISE:

In both beef enterprise models, a positive return to capital, management and labour is not achieved even at the highest meat sale price. Savings could be realized by not grain finishing; this would reduce the production costs by close to 50 cents a pound. Depreciation, (the consumption of capital stock) accounts for an additional 17 cents a pound. Discounting grain finishing and depreciation would give a production cost of about 85 cents a pound. If premium prices could be obtained for grass fed beef a slight return may be demonstrated in both models.

From both models the conclusion is the same: cow/calf operations in the Yukon do not appear to be economical. Both models rely on commercial debt and presume that most developmental work will be done by contract and financed through debt. An individual may be able to clear his own property cheaper then by contract, and through his own labour reduce indebtedness. In these cases the money that the models assign to debt servicing would become a return to the farmer, a wage or a return on sweat equity. It may be possible for an

individual who is willing to invest their own labour in building equity and operating a cow/calf operation to realize some returns on that labour and equity. In other parts of Canada, beef operations lend themselves to what might be termed "pioneering ingenuity." This is present in abundance among Yukon farmers. Hence, an actual case might produce superior results to those indicated; but from the results generated above, it seems improbable that unique individual results will ever be strong enough, in the aggregate, to warrant or be defined as an industry. The following graph illustrates the economic models projections of the financial performance of a cow/calf operation.

Annual Financial Preformance
of a Developing
Cow/Calf Operation for the first 10 Years



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These projections show that; debt steadily increases; capital value of the land and assets never exceeds the value of the operations debt; and net income never becomes positive (i.e., the operation always looses money).

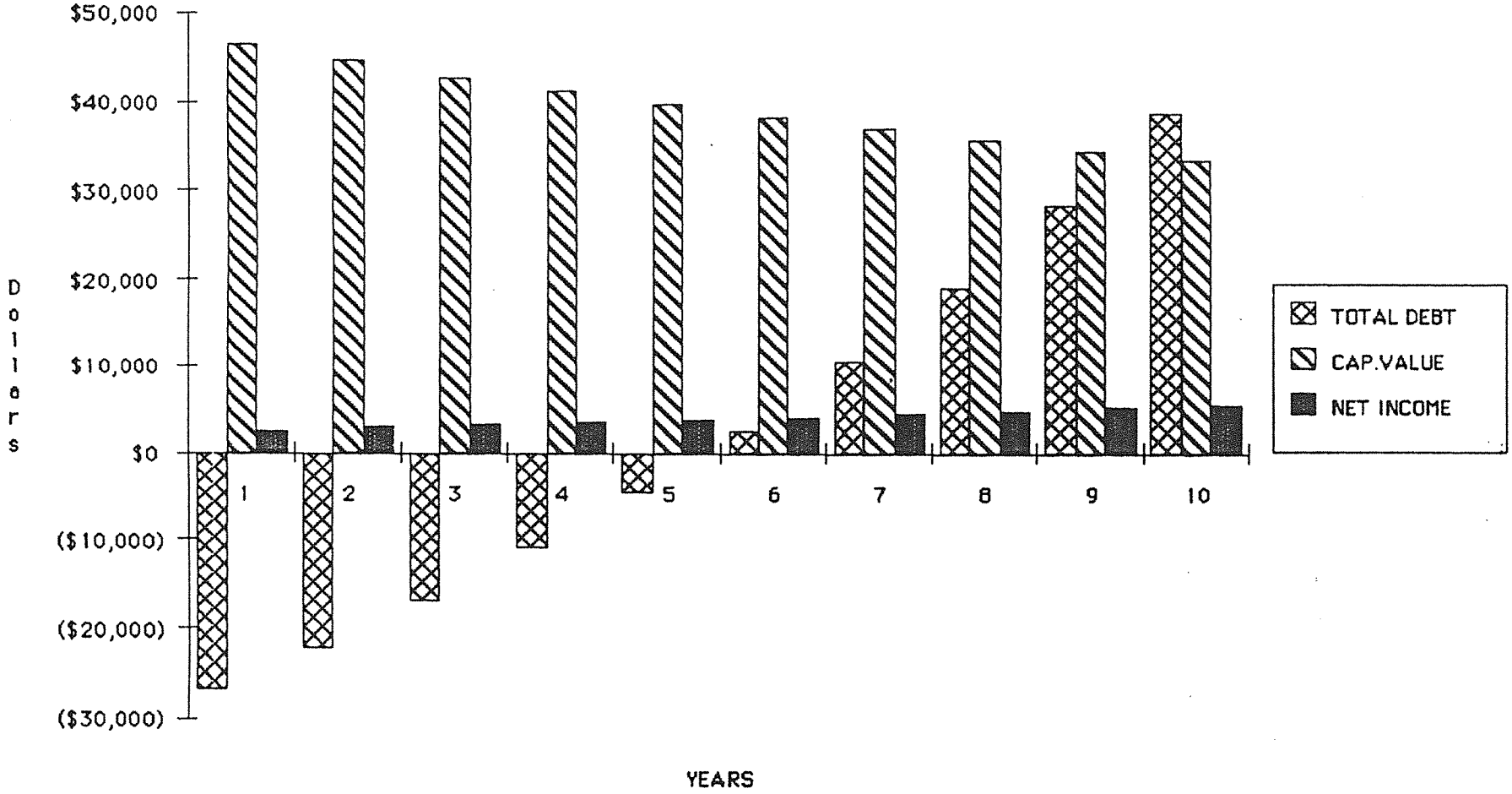
In conclusion, it is felt that beef operations will never contribute significantly to a Yukon agricultural base, nor would beef carcasses prove significant in the operation of an abattoir.

POULTRY ENTERPRISE:[1]

Both broiler models show a positive but modest return at all selling prices used. The rate of return increases dramatically with increases in the selling prices. Within the poultry market a niche may exist may exist for quality chickens and pheasants. These high quality birds (capons and large roasters) demand higher prices. The following graph illustrates the financial performance of a broiler operation.

[1]In calculating feed costs, the Federal Feed Grain Subsidy Program was factored in. Removal of this transportation subsidy could have significant impacts on marginal operations.

Annual Financial Preformance
of a
Broiler Operation for the first Ten Years



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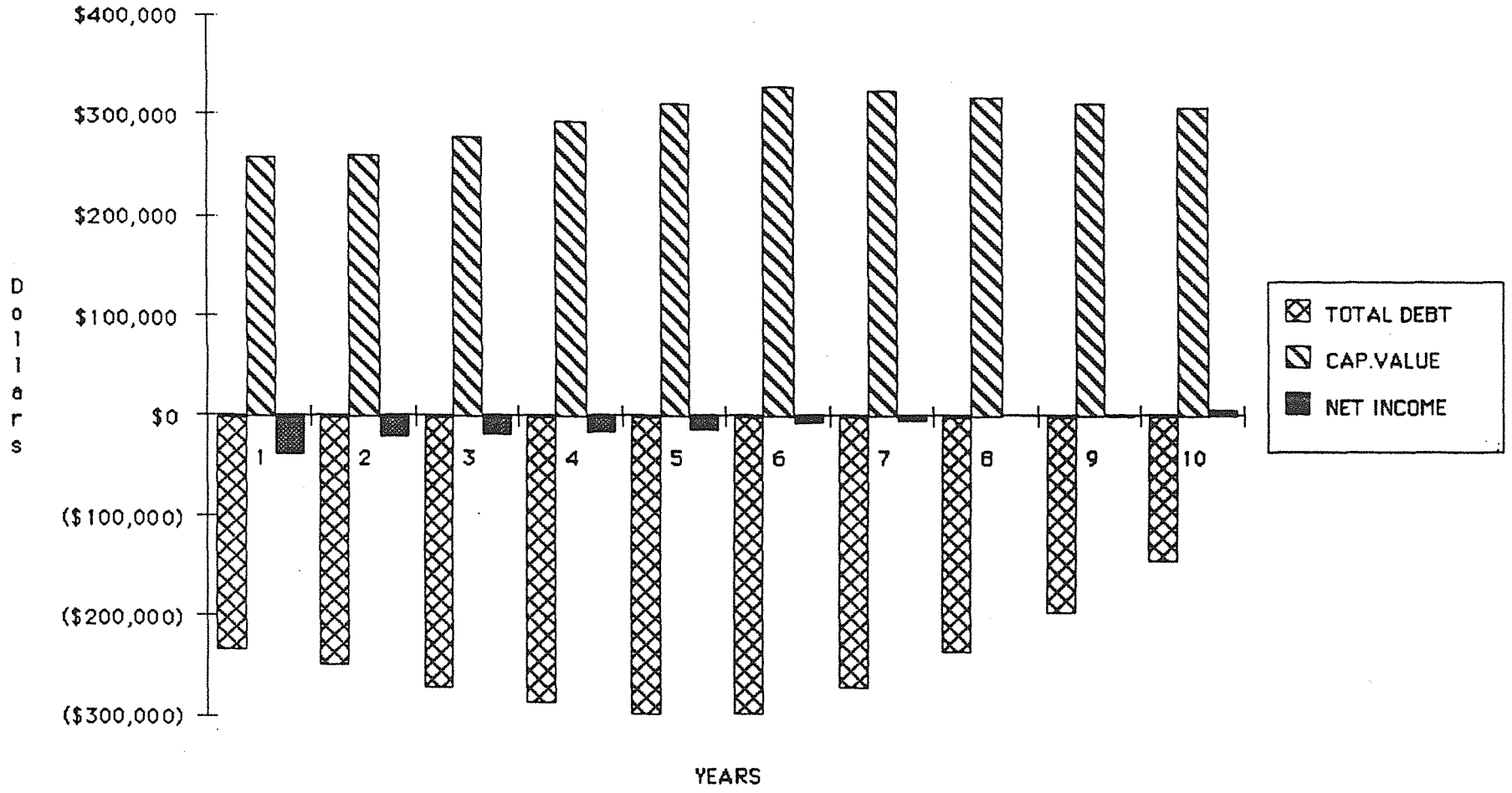
These projections show that; debt steadily decreases and that by year six, debt has become positive retained earnings; capital value of the land and assets is positive; and net income is always positive (i.e., the operation always makes money).

In conclusion, it is felt that broiler operations may contribute significantly to a Yukon agricultural base, unfortunately the volumes of poultry carcasses would not prove significant in the economic operation of an abattoir.

HOG ENTERPRISE (FARROW-TO-FINISH):

The farrow-to-finish cost/returns model shows a positive return to capital, labour and management at a selling price above $142.00 per hog[1]. While in the economic model the return depends on the debt structure. At a full debt load, with commercial interest rates, net income remains negative throughout the first eight years of operation. If the debt load is reduced by one half, through owner equity, sweat equity or grants, the operation starts to show positive returns in year two. The following graph illustrates the financial performance of a farrow-to-finish operation.

Annual Financial Preformance
of a Developing
Farrow to Finish Hog Operation



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These projections show that; after increasing during the developmental stage steadily decreases over the next four years; capital value of the land and assets is positive and in year 10 assets exceed liabilities by about $150,000; and net income is positive in the last three years. Again, the amount of net income is dependent upon debt; as equity increases net income would become positive earlier(i.e., the operation would make money sooner).

In conclusion, it is felt that hog operations could contribute to a Yukon agricultural base, hog carcasses would prove significant in the operation of an abattoir.

Both hog and poultry enterprises offer more limited scope for individual inventiveness, as compared to beef production; but in the models used here, both offer better prospects for profitable operations. Although not studied in detail (due to limited cost of production data), game farming appears to offer an opportunity for the development of a local meat industry.

CONCLUSIONS AND RECOMMENDATION

AGRICULTURAL STRATEGY:

In a competitive situation, subsidy in one production center must be matched by an equivalent subsidy in all production centers if market shares are to be unchanged. In the Yukon where agricultural development is just beginning, southern subsidies compound the high costs of development to the point where that development is not economically rational. In a recent study by Price Waterhouse[1] the following is stated:

> The analysis shows that producers in Alberta have a clear advantage over Thompson Nicola Regional District (TNRD) producers **when Government programs are considered.** When subsidies are removed, the TNRD producers have an advantage over their counter parts in Alberta. **Accordingly it is imperative that any programs which subsidize the production of beef in Alberta be matched in British Columbia.**

The same conclusion is reluctantly drawn for the Yukon. Namely, if it becomes government policy to establish beef production as a part of a Yukon Agricultural Industry, then major subsidy programs would have to be put in place to;

a) counteract those subsidy programs which exist in southern Canada,
b) compensate for limited market sizes, and
c) compensate for higher production costs.

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[1] Thompson Nicola Regional District - Potential For Intensification of the Cattle Industry, by Price Waterhouse, February 1988

Clearly, agriculture will continue to develop in the Yukon. The direction of that development will determine how viable our agricultural industry will become. As with other manufactured items, those agricultural products that are unique to the Yukon, have high value, are easily transported, and are adapted to our climate will be economic to produce. Competition with southern products, without major subsidization, will at best produce marginal operations.

It would appear from the preliminary review of the Yukon's agricultural potential that the following types of operations may prove longterm viable:

GAME FARMING
(elk, reindeer and bison)

POULTRY AND PHEASANT
(that raise customized birds, such as capons and larger roasting chickens, that would command premium prices.)

To a lesser degree hog production may produce marginal positive returns to the producer. It is of interest that pork shoulder and fats are ingredients in wild game sausages. Perhaps the co-development of both game farming and hog enterprises will be synergistic.

ABATTOIR ALTERNATIVES:
From an economic point of view, none of the abattoir alternatives considered would result in a viable commercial operation, unless the Territorial Government is prepared to make the capital investment and subsidize the operational expenses of the facility.

At production levels accounting for 10 per cent of local meat consumption, operating margins for an abattoir would not be sufficient to cover both the investment and the operating costs. In the case of the smallest sized federally approved facility the following criteria would have to be met for a break even operation:

1) annual throughput would need to exceed 600 cattle and 2,400 hogs (15% of the market)[1],

2) at least half of the by-product values would have to be realized,

3) the facility would have to charge $50 per head of cattle and $30 to $40 per hog; and

4) until stated levels of production are achieved, an operating subsidy of approximately $100,000 per year would be required.

Regional and mobile operations, although cheaper to build, are not more economic to operate as they cannot handle the volumes of larger facilities. Consequently labour becomes less efficient and contributes more to the overall costs.

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[1] Capturing of 15% of the meat market would require a 1400% increase in the present Yukon herd size and the expenditure of over $6 million in land and business development. If ALL land development work were done in the spring and summer of 1989, it would be 1995 before the full 600 cattle were being marketed.

RECOMMENDATIONS

Based on the above conclusions and information presented in this study the following recommendations are made:

1 - RECOMMENDATION

The Yukon Territorial Government should commission a kill-only mobile abattoir (capable of both red meat and poultry processing). The abattoir would be operated by a Government employed meat inspector as a service to the developing agricultural industry. A fee for this service should be charged equivalent to southern fees for similar services (cost $180,000 and annual operating costs of $30,000).

RATIONAL:

None of the abattoir options studied could be considered as viable business enterprises. Low numbers of animals for slaughter and uncertainty as to the future number of animals argue against predictions of future economic viability. Without an abattoir and inspection services an agricultural meat industry can not develop. As potential exist for poultry, game animals, hogs and in special circumstances beef; the above is recommended as the least cost method of assisting in the development of a meat production industry.

2 - RECOMMENDATION

The Yukon Territorial Government should amend existing abattoir regulations to allow for a mobile slaughter facility (no cost).

RATIONAL

Present regulation would prohibit a mobile slaughter operation.

3 - RECOMMENDATION

The Yukon Territorial Government should ensure that meats slaughtered and inspected are identified as such and that the public is aware of the inspection program and accepts these inspected meats as safe, wholesome products. Inspected meats must be distinguished from farm-gate sales(staff costs of an inspector 1/4 PY $12,500).

RATIONAL

Demand for meats grown locally depends heavily on consumer acceptance of a Yukon inspection standard.

4 - RECOMMENDATION

The Yukon Territorial Government should institute an extension program to educate the producers of meat products about correct handling methods for slaughtered meats (cost - included as part of veterinarian's duties).

RATIONAL

With a kill-only abattoir the producer will be responsible for handling the meat once it has been inspected and slaughtered. An extension program would be consistent for ensuring quality standards for Yukon meat.

5 - RECOMMENDATION

The Yukon Territorial Government should work with the City of Whitehorse to have the public health regulations amended to account for Territorial inspection as well as Federal inspection of meat products (no cost).

RATIONAL

Without amendment of the City public health regulations 80% of the market would be denied to Yukon grown meats.

6 - RECOMMENDATION

The Yukon Territorial Government should institute a developmental program to assist in the further processing and marketing of Yukon grown meats (a three year program of $30,000 annually).

RATIONAL

Attention should be given to utilizing the lesser valued meat cuts and ways of maximizing local value added to meats. Game meats would be particularly suited to this type of development program.

7-RECOMMENDATION

The Yukon agricultural community should establish methods that facilitate sales of properly slaughtered and inspected meat. These methods could include an "order desk" where residents could call up and register an order for meat and producers could register meat for sale. Only inspected meats would be eligible for registration (cost - less then $10,000 and costs eventually covered by commission on sales).

RATIONAL

Intermediate steps are necessary between farm-gate sales and the marketing methods practiced in southern Canada. An order desk could be the first of these steps.

8 - RECOMMENDATION

The Yukon agricultural community should examine cooperative methods to purchase feed and other commodities were bulk purchase and shipping could effect price (no cost).

RATIONAL

By reducing input prices the industry would be able to compete more effectively with southern producers.

9 - RECOMMENDATION

The Government and agricultural community should cooperatively ensure that a large animal veterinarian is recruited for the Yukon. Strong consideration should be given to having this person on-staff with the Agricultural Branch (cost $70,000 annual salary, plus $25,000 for travel and supplies).

RATIONAL

The presence of a large animal veterinarian is central to the development of an agricultural base. Low numbers of animals and uncertainty as to the future number of animals argue against this need being met through any other means then government.

10 - RECOMMENDATION

The Government and agricultural community should cooperatively institute a system of uniform accounting, so that producers are able to assess their costs of production ($15,000 consulting assignment).

RATIONAL

A uniform accounting system would allow accurate cost of production data to be assembled. The individual could evaluate their own costs against territorial and national producers. Cost of production in the game farming area would be particularly of interest.

11 - RECOMMENDATION

The Government and agricultural community should cooperatively develop a data base of agricultural information. The above uniform system of accounts and actual production data would be the main elements of this data base (hardware costs of about $30,000, programming to establish system $20,000, on-going maintenance by existing staff).

RATIONAL

Accurate and timely information is essential for policy making and business decisions. An agricultural information system would provide that timely information.

12-RECOMMENDATION

The Government and agricultural community should cooperatively develop support systems for new entrants into the agricultural industry, extension programs and twinning programs to bring existing farmers together with new entrants into farming should be considered ($10,000 for twinning program).

RATIONAL

A support system for new farmers could reduce costly errors in start up and contribute to a more stable and economic agricultural industry. The experienced farmers should receive a per diem for time spent with the inexperienced farmer.

13-RECOMMENDATION

The Government and agricultural community should cooperatively undertake a comprehensive agricultural development strategy that would re-examine all areas of production and local demands ($100,000 to $150,000 consulting fees).

RATIONAL

This initial study has had to make assumption and ignore many areas of inquiry that a more comprehensive study would not do. With the limited resources of the industry and government trail and error development is not appropriate, rather directed and focused development should be the goal.