PROPOSAL

AN AGRICULTURAL PROJECT
FOR

Ayiki Wild Craft LTD.

(ALBERTA REGION)

Prepared by
Richard Alan Miller -NORTHWEST BOTANICALS, INC.
revisions by RW Brower- Berkhoven Med M Pharma LTD.

C2020

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Overview
of
AGRICULTURAL PROJECT

This part of the proposal involves the farming, wildcrafting, and light

processing aspects of the pharmaceutical trade. While this aspect is less profitable to the manufacturing and distribution of pharmaceuticals, it allows better quality control (of marketing) and vertical integration of all aspects of this industry. By growing your own crops, you are assured of the quality of ingredients.

This aspect of the proposal will create more than 98 full time job positions over the next five years, most with wages in excess of $15/hour. It will also put more than 65 acres into full production (irrigated), and more than 82 further acres of forest land also developed and farmed. An additional 34 technical jobs will require further training and skilled labor, with wages in excess of $18/hour.

Profit margins can exceed 300%, especially with specific markets already developed from an "in home" delivery program. Indian Herbal Coffee and the Floral projects will show up to $30,000/acre in wages and labor requirements. With the use of specialized harvesting equipment (i.e.: rice harvester for floral grains) can put wage ratios up to $40/hour in some cases.

This is not a raw material industry, but where the quality of raw materials determines the depth of marketing. It is impossible to find competitive crop prices (for specific raw materials) that will also deliver the quality needed for a market re-buy. If it works, the customer will want it again. This market is driven on the chemistry delivered in the end form.

Farming and Wildcrafting holds the land, and purpose for land use. It also fosters an identity to historical ways, and new approaches toward those values. It is a way to not only build Tribal land use, but to build character and values associated with rural farm communities. Basic farm labor requirements will also lead toward semi-technical and technical support needs (trained labor).

The first year calls for six different agricultural projects to begin, each with several crop studies. They were selected to match possible growth in the pharmaceutical trade, while creating wages for single parent families and other available on-site labor. Several projects allow for an immediate cash flow for wages and other long-term projects (forest farming).

At the end of five years, the proposed farm and wildcrafting projects will have developed their own areas for cottage industry development. This would include a centralized processing facility and some light manufacturing options, requiring on-site semi-skilled and technical labor. Vertical integration allows access to deeper profit margins and control of product development.

Overview
of
PROJECT EXPENSES AND RETURNS

PROJECT EXPENSES AND RETURNS

This brief overview of project expenses and returns include

	Start Up Costs	Maintenance	P/L - 5th Year	
A Wildcrafting Project	$ 7,900.00	$ 13,200.00	$ 99,800.00	
A Forest Farming Project	$ 21,700.00	$ 7,000.00	$ 165,500.00	
A Floral Cottage Industry Farming Project	$ 12,000.00	$ 37,500.00	$ 412,500.00	
An Herbal Coffee Substitute Farming Project	$ 3,000.00	$ 3,500.00	$ 12,500.00	
A Pharmaceutical Farm Project	$ 12,000.00	$ 6,000.00	$ 84,000.00	
An Animal Feed Supplement Farming Project	$ 4,000.00	$ 8,000.00	$ 39,000.00	
Farm Machinery (lease/option)	$ 50,000.00			
Light Office	$ 20,000.00			
Management	$ 50,000.00			
Totals	**$ 180,600.00**	**$ 75,200.00**	**$ 813,300.00**	

The actual manufacture of pharmaceuticals and other cottage industries will not only provide incomes from wages, profit margins should exceed 300%. This is due to the built in aspects of having a market (in home delivery) already established, and creating demand for further crop development. Other cottage industries, such as the floral trade and foods (i.e. Herbal Coffees) use the expertise NWB.

Initial studies and development calls for a startup need of less than $200,000.00. A series of educational workshops might want to be offered now, in preparation for March, 2020 greenhouse support and field/forest development. This can be done via a series of 8-hour workshops and conferences.

Summary of FARM PLAN

Purpose:

To develop a model farm and forest for alternative crops well suited for the slightly silt-loam soils of Alberta. To create niche markets and cottage industry development for these crops, and allow the addition of other farms into a possible co-op or tribal situation.

Objective:

To produce herb and spice crops for the pharmaceutical trade, food industry, and the growing floral trade. Also, to develop accurate cost-of-goods produced for eventual expansion opportunities for other Native American People. To take advantage of native resources and tribal laws.

Scope:

A poly-culturing situation is recommended where a number of different

crops are cultivated simultaneously, improving market access and cash flow stability. The program should include crop rotation schedules and other techniques for soil improvements. Forests should be set up as farming ventures for sustainability and ecological considerations.

Time Factor:
A program begins in May 2021, with expansion through 2026. Most perennials will be developed as seedlings during the winter of 2020 for an early spring row planting. Some forest projects could begin in early September, like the mushroom project for the forest. Dryers and other resources need to be lined out by September, 2021.

Anticipated Costs:
These vary with individual crops, averaging less than $4,000 per acre for initial establishment. A list of crops suitable for your region is outlined. From this list, a number of lightly irrigated crops (water truck) and non-irrigated crops are recommended, and a detailed cost of establishment/yields proforma has been included.

There are six different projects recommended, each sovereign within themselves. This allows for expansion or elimination without disruption of the overall program. Diversification.

Anticipated Incomes:
Most suggested perennial crops will yield more than $20,000 per acre (gross) in labor after establishment (3rd year), when sold as a cottage industry. A number of other crops, like Comfrey, might be seen as by-products for soil amendment requirements. Other labor would include processing and manufacturing of various products.

Following the recommended expansion program for the primary crops, more than 177 acres of light-irrigated crops and forests will be in full production by 2027. Once marketing and cultivation problems have been overcome, these crops will yield a positive net cash flow of $713,500.00 per year - just as raw material.

Expansion into cottage industries will allow more than 98 labor jobs on the farm, and more than 34 skilled labor in various processing and laboratory opportunities. Vertical integration is available for all aspects of the manufactured and cottage industries from these crops.

Anticipated Volumes (Wholesale):
These will vary from Matsutaki mushrooms with estimated yields of about 150 pounds per acre, to such crops as Comfrey with more than 8,000 pounds per acre. Problem to solve will be drying sheds and the harvest of floral bunches (kids, as farm labor).

Potential Markets:
Not only will these products as bulk herbs and spices (crude) be sold as raw material, processing allows numerous cottage industry opportunities with much greater profit margins (and labor needs). All of these crops were selected to meet current and growing needs in U. S. markets. I am available to assist in the marketing of all of these crops.

Prepared By:

Richard Alan Miller
NORTHWEST BOTANICALS, INC.
493 Coutant Lane
Grants Pass, OR 97527-6104
Phone: (541) 476-5588
Fax: (541) 476-1823

Internet Addresses
drram@magick.net
URL: http://www.nw.net/ram
also see the Q/A section of
URL: http://www.richters.com

Summary of LABOR REQUIREMENTS

There are six different agricultural projects proposed as a basic start point. They each were chosen to balance each other toward further participation and expansion opportunities in the future. They include.

Wildcrafting Project: These four crops take advantage of local and regional native plant resources that are already available for harvests. Up to 8 acres of native plants will start this project in 2020, and have more than 32 acres under forest supervision by 2027. 3-20 persons

Acorn	3 persons, 4 months	20 persons, 4 months
Bay Leaf	3 persons, one month	7 persons, 4 months
Eucalyptus Leaf/Oil,	3 persons, one month	6 persons, 2 months
Pods	3 persons, two month	8 persons, three month

Forest Farming Project: These six crops are either native to the region, or can be made to "climatize" easily through farming techniques used in the woods. This would be a sustainability project for small woodlot owners. Up to 11 acres will be planted in 2021, and have more than 50 acres of cultivated forests and tree farms by 2027. 5-20 persons.

Bloodroot Root	1 person, one month	2 persons, one month
Cascara segrada Bark	1 person, 6 months	3 persons, 6 months
Matsutaki Mushroom	2 persons, 3 months	8 persons, 4 months

Matsutaki Mushroom	2 persons, 3 months	8 persons, 4 months
Salal Preserved	3 persons, four months	8 persons, 6 months
Wild Indigo Root	1 person, one month	2 persons, one month

Floral Project: This is a good way to develop crops, by adding value to smaller acreage. This will use the most acreage, similar to what was done in the Trinity Alps Project. This will need 3 acres of irrigated fields in 2021, and finish with 25 acres in 2027. 3-20 persons

Basil	2 persons, 3 months	10 persons, 4 months
Licorice Mint	2 person, 3 months	14 persons, 6 months
Orange Mint	2 person, 3 months	14 persons, 6 months

Cottage Industry Project: A typical cottage industry, based around the rapid coffee market interests. This project should include a centralized processing facility, to include outside custom projects. Land use is minimal, starting with 2 acres of light irrigation, and using up to 10 acres by 2027. 2-8 persons, plus processing (5) and manufacturing (5).

Chicory Root	1 person, 2 months	8 persons, 6 months
Dandelion Root	1 person, 2 months	8 persons, 6 months

Pharmaceutical Project: These are the first projects toward developing a program in growing our own pharmaceuticals for delivery (as finished products). Start with 4 acres in 2021, and using more than 30 acres by 2027. 5-20 persons, plus 6 for marketing and processing (regulatory).

This will eventually lead to a small manufacturing (3 years), with a need of up to 18 persons plus a laboratory (3 persons + $80,000 in lab equipment).). This is where the real money probably will be made via the vertical integration of in-home delivery.

Black Cohosh	2 person, 3 months	6 persons, 3 months
Scarlet Poppy	4 persons, 6 months	20 persons, 6 months

Animal Feed Supplement Project: These crops allow the possibility of moving toward larger markets with Japan. One also allows for the possibility of creating "syn" fuels for our farm and delivery systems. Start with 4 acres in 2021, and using more than 30 acres by 2027. 2-10 persons.

A drying shed also needs to be in place ($20,000).

Comfrey Leaf	2 persons, 4 months	10 persons, 6 month
Marigold Flowerheads	1 person, 3 months	4 persons, 6 months

Overview Summaries:

Total Labor needs:	**17 persons**	**98 persons**
To work		
Forest Used	**8 acres**	**32 acres**
Forest Farmed	**11 acres**	**50 acres**
Irrigated Fields	**9 acres**	**65 acres**

Processing Plant/Lab **34 persons**

WILDCRAFTING Project:

ACORN - This product grows in wild abundance throughout Northern California and Southern Oregon as an unrecognized natural resource. The primary buyer is Korea, using more than 1,000,000 lb. each year as a primary food supplement in their diet. Price range from $3.25/lb. to more than $4.50/lb. The product can be harvested by using tarps and a tree knocker or tractor. Newer marketing directions include capped acorns as an ingredient for potpourri.

BAY LEAF - The primary use is for the whole leaf as a spice. One major California spice company sells the dried leaves on the retail market. The 1,8-cineole is by far the most important aroma component of California bay oil. The concentration of this in West Indian Bay is much smaller than the other oils at only 10%. California bay is 95% of the odor units. Perfume is made from Oregon Myrtle wood for the tourist trade.

The leaf is now sold by the Shilling Spice Company (a division of McCormick). The price varies from $0.75/# for the currently imported Mediterranean *Laurus nobilis* in 2-ton quantities to more than $1.70/# from most of the smaller spice companies in 100# quantities. The oil markets have good potential, with current herbage markets in the U.S. using well over 2,000 tons annually.

EUCALYPTUS - This is a fast growing floral, especially if it has been preserved with glycerin. One farm in California actually moves more than 6 truckloads per week, during harvest season. It is extremely frost sensitive, but grows so quickly, it is an excellent alternative. Preferred varieties include the dwarf- and spiral-types. Larger bulk markets use it as a pharmaceutical, but most now comes from Portugal.

PODS - This is a new market with excellent futures and diverse options, including cottage industry development. The list of dried pods from wildflowers, wild grasses and weeds is quite extensive. The obvious new direction would be dying and preserving these as a cottage industry.

TABLE I: Estimated Crop Yields:

	Cost/Acre	Yield	Price	1	2	3	4
	(a)	(b)	(c)		-Year -		
ACORN	400/400	4,000	3.25-4.50	2,000	3,000	4,000	4,000
BAY LEAF	40/40	1,200	0.80-1.40	800	1,000	1,200	1,200
EUCALYPTUS	1,500/400	8,000	0.35-1.10		1,000	2,000	3,000
PODS	4,000/600	10,000	0.50-1.50	2,000	3,000	4,000	5,000

TABLE II: Expansion Program

	1	2	3	4	5	6	7
			- Year -				
WILDCRAFTING Project:							
ACORN	5	5	10	10	20	20	20
BAY LEAF	1	1	2	2	5	5	5
EUCALYPTUS	1	1	2	2	5	5	5

PODS	1	1	2	2	2	2	2

32 acres

TABLE III: P/L Proforma Based on Expansion Program

WILDCRAFTING Project:

YEAR	EST. COST	NET YIELD	P/L
1	7,900.00	12,800.00	4,900.00
2	3,400.00	20,000.00	16,600.00
3	11,300.00	40,000.00	28,700.00
4	6,800.00	49,200.00	42,400.00
5	16,500.00	79,800.00	63,300.00
6	13,200.00	95,400.00	82,200.00
TOTAL NET GAINS			228,100.00
FULL PRODUCTION	13,200.00	113,000.00	99,800.00

Estimated crop yields, and subsequent P/L proforma, are all based on bulk prices (as dried materials). They do not reflect prices available if marketed as a processed crop. The net gains, in this situation, would increase by more than 200-percent.

Cultivation costs for perennial fields (estimated) are also included. Some special machinery will need to be fabricated to harvest flowerheads. Dehydration systems should be no problem in either design or cost.

Produce production is not included in these P/Ls. However, a good rule of thumb is that most spices used for bulk produce should yield about 4x that of dried material per acre. This indicates a 75-percent weight-loss in drying biomass.

FOREST FARMING Project:

BLOODROOT - This grows well in northern woods of the Midwestern states, especially as a forest farming project. It takes about three years before full production is achieved, and requires full shade for best growth. It can be harvested with rototiller-like root harvesters.

CASCARA SEGRADA- A regional forest-farming venture, specific to Oregon, Washington, and British Columbia. The tree is taken (chopped down) every 8 to 12 years as a small woodlot thinning and rotation programs. The bark is used as a primary ingredient to most laxative formulas, and typical volumes are in excess of 800 ton per year to European markets alone. Brazil and most other countries also use it. Cascarin is used to "tone the colon."

MATSUTAKI MUSHROOMS - Matsutaki is the premier mushroom sought by Japanese markets. Local harvests in Southern Oregon are in excess of $5,000,000 annually. While it is not possible to cultivate this as a crop, natural stands can be *enhanced* for continued year-to-year increases in harvest. A special book is now being written on the technique of forest farming this crop.

OREGON GRA - A Golden Seal Root substitute, used to mask urine drug tests. Golden Seal is now considered endangered in some regions of North America, and prices have soared to more than $60/lb. Oregon Grape, with approximately 80 percent the action only sells for $1.30/lb. It is also used extensively as an ornamental. It costs more than $2,000/acre to establish, and less than $100/acre per year for maintenance. Yields are estimated at 4,500 lb./acre, with an eight-year rotation.

SALAL - There is a history of use for green, undid Salal, especially in the funeral home markets. Since it is now often dipped into paint, a dyed and preserved Salal has uncharted potential. At present, it is a stationary trade.

American Oak could use up to three truckloads (6,800 lb./1-2-truck) of dyed and preserved Salal. Golden Bough estimates 400 pounds per month. Coast Wholesale could use 2,500 pounds. "Florist Review" has listed more than 1,700 similar buyers in their annual "Buyer's Directory".

It is obvious that dyed and preserved Salal is not a price driven business, but most competitive in it's atheistic qualities. The proposed price of $5.50/lb. in bulk 2,000-pound quantities acceptable to the current markets. A $4.75/lb. should be considered for larger contract sales for year-round delivery. If a specific identification to quality is made, this new market is assured a viable niche in the floral trade.

WILD INDIGO - This root crop is well suited to the Midwest forests and Oregon. The root is used as a dye (501 blue jeans), and can be grown in forests that small machinery might be used. It is harvested in the seventh year, and seed is collected for new plantings.

TABLE I: Estimated Crop Yields:

	Cost/Acre	Yield	Price	1	2	3	4
	(a)	(b)	(c)		-Year -		
BLOODROOT	2,000/100	1,500	3.50-5.00		1,000	1,500	2,500
CASCARA	1,500/50	2,000	1.60-2.40				
MATSUTAKI	200/200	150	12-22.00	2,000	2,500	3,000	4,000
OREGON GRA	3,000/200	4,000	1.10-1.60			800	2,000
SALAL	4,000/400	8,000	0.50-1.20		2,000	3,000	4,000
WILD INDIGO	2,000/100	1,500	2.50-3.50		1,000	1,500	2,500

TABLE II: Expansion Program

	1	2	3	4	5	6	7
			- Year -				
FOREST FARMING Project:							
BLOODROOT	1	1	2	2	5	5	5
CASCARA	5	5	10	10	20	20	20
MATSUTAKI	1	1	2	2	5	5	5
OREGON GRAPE	2	2	5	5	10	10	10
SALAL	1	1	2	2	5	5	5
WILD INDIGO	1	1	2	2	5	5	5
				50 acres			

TABLE III: P/L Proforma Based on Expansion Program

FOREST FARMING Project:

YEAR	EST. COST	NET YIELD	P/L
1	21,700.00	2,000.00	-19,700.00

2	1,450.00	6,500.00	5,050.00
3	26,150.00	12,600.00	-13,550.00
4	3,100.00	23,500.00	20,400.00
5	57,700.00	47,900.00	-9,800.00
6	7,000.00	76,000.00	69,000.00
TOTAL NET GAINS			51,400.00
FULL PRODUCTION	7,000.00	172,500.00	165,500.00

Estimated crop yields, and subsequent P/L proforma, are all based on bulk prices (as dried materials). They do not reflect prices available if marketed as a processed crop. The net gains, in this situation, would increase by more than 200-percent.

Cultivation costs for perennial fields (estimated) are also included. Some special machinery will need to be fabricated to harvest flowerheads. Dehydration systems should be no problem in either design or cost.

Produce production is not included in these P/Ls. However, a good rule of thumb is that most spices used for bulk produce should yield about 4x that of dried material per acre. This indicates a 75-percent weight-loss in drying biomass.

FLORAL Project:

FLORAL - This is a new way to get started. When beginning feasibility studies, smaller acreage can be put up as dried florals, and sold to the mass market outlets (Vons, Safeway, Food Giant, etc.) While the markets are limited, this offers an alternative to the produce trade. (Same buyer, most supermarkets).

MINT - Various mints can be grown for the herb tea companies. This requires a swather and then combine pick-up, to separate the leaf from the stem. As a market niche, these crops can be quite diverse, since most crops considered as spices are also mints. These are the crops with square stems (like Catnip and Basil).

BASIL - This annual requires low water and makes excellent cottage industry projects for the winter months. It can be used to make vinegar and pestos (frozen) for mass-markets. (HMR 2:2).

LICORice MINT - Somewhat fragile, licorice mint is often grown as an annual rather than perennial. It is an excellent dried floral, and the leaf is also now marketed as anew tea ingredient. This requires a combine, similar to peppermint and spearmint. The oil is rarely extracted.

ORANGE MINT - This mint contains *linalool* and *linalyl* acetate (lavender), and is marketed as an oil to the perfume industry. New markets indicate it might be used as a leaf product for the herb tea markets. It is quite fragrant, and could be harvested somewhat like peppermint and spearmint leaf.

TABLE I: Estimated Crop Yields:

	Cost/Acre	Yield	Price	1	2	3	4
	(a)	(b)	(c)		-Year -		
FLORAL	4,000/2,500	15,000	1.00-1.60		10,000	15,000	20,000

TABLE II: Expansion Program

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	1	2	3	4	5	6	7
			- Year -				
FLORAL Project:							
BASIL	1	1	2	2	5	5	5
LICOR MINT	1	1	2	2	5	5	10
ORANGE MINT	1	1	2	2	5	5	10
				25 acres			

TABLE III: P/L Proforma Based on Expansion Program

FLORAL Project:

YEAR	EST. COST	NET YIELD	P/L
1	12,000.00	30,000.00	18,000.00
2	7,500.00	45,000.00	37,500.00
3	19,500.00	90,000.00	70,500.00
4	15,000.00	120,000.00	105,000.00
5	51,000.00	240,000.00	189,000.00
6	37,500.00	300,000.00	262,500.00
TOTAL NET GAINS			682,500.00
FULL PRODUCTION	37,500.00	450,000.00	412,500.00

Estimated crop yields, and subsequent P/L proforma, are all based on bulk prices (as dried materials). They do not reflect prices available if marketed as a processed crop. The net gains, in this situation, would increase by more than 200-percent.

Cultivation costs for perennial fields (estimated) are also included. Some special machinery will need to be fabricated to harvest flowerheads. Dehydration systems should be no problem in either design or cost.

Produce production is not included in these P/Ls. However, a good rule of thumb is that most spices used for bulk produce should yield about 4x that of dried material per acre. This indicates a 75-percent weight-loss in drying biomass.

COTTAGE INDUSTRY Project:

CHICORY - Often classified as a noxious weed, this crop is now cultivated for coffee substitute markets. It is harvested with potato harvesting machinery, or plows designed to harvest root crops. The root can be sun-cured.

DANDELION L - There are some extensive markets for the leaf, now estimated at more than 10,000 acres (as an herbal chewing tobacco substitute). It is almost impossible not to grow this crop well. Since the leaf is considered a by-product, the production tables do not include overhead, as they are covered in root production.

DANDELION R - After the second year, roots can be taken as a by-product for the coffee-substitute/additive and other cottage industry markets. This should be a fairly easy crop to cultivate.

TABLE I: Estimated Crop Yields:

	Cost/Acre	Yield	Price	1	2	3	4
	(a)	(b)	(c)		-Year -		

CHICORY	1,500/200	2,000	0.60-0.95		800	1,200	1,500

DANDELION	1,500/500	500R	1.40-2.20	300	500	500	500
	1,500L	0.80-1.50	300	800	1,200	1,200	

TABLE II: Expansion Program

1 2 3 4 5 6 7

- Year -

COTTAGE INDUSTRY Project:

CHICORY 1 1 2 2 5 5 5

DANDELION RT 1 1 2 2 5 5 5

10 acres

TABLE III: P/L Proforma Based on Expansion Program

COTTAGE INDUSTRY Project:

YEAR	EST. COST	NET YIELD	P/L
1	3,000.00	600.00	-2,400.00
2	700.00	2,100.00	1,400.00
3	3,700.00	3,500.00	-200.00
4	1,400.00	5,300.00	3,900.00
5	10,400.00	7,900.00	-2,500.00
6	3,500.00	12,700.00	9,200.00
TOTAL NET GAINS			9,400.00
FULL PRODUCTION	3,500.00	16,000.00	12,500.00

Estimated crop yields, and subsequent P/L proforma, are all based on bulk prices (as dried materials). They do not reflect prices available if marketed as a processed crop. The net gains, in this situation, would increase by more than 200-percent.

Cultivation costs for perennial fields (estimated) are also included. Some special machinery will need to be fabricated to harvest flowerheads. Dehydration systems should be no problem in either design or cost.

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PHARMACEUTICAL Project:

BLACK COHOSH - Previously wildcrafted, this crop is well suited as a forest-farming venture. Typical rotations for the small woodlot owner is from three to five years. Its primary markets are as a treatment for rheumatism. While native to the Eastern part of North America, it will grow in most Western States and throughout Canada.

SCAR POPPY - This is the primary source for codeine. The entire plant is taken for extraction, requiring minimal harvesting equipment. As a primary import from Turkey, the trade agreements have recently terminated, and the primary pharmaceutical

buyers are now looking for domestic sources.

TABLE I: Estimated Crop Yields:

	Cost/Acre	Yield	Price	1	2	3	4
	(a)	(b)	(c)		-Year -		
BLACK CHO	3,000/200	4,000	2.00-3.50			800	2,000
SCAR POPPY	3,000/400	10,000	0.50-1.50	1,000	2,000	3,500	5,000

TABLE II: Expansion Program

	1	2	3	4	5	6	7
			- Year -				
PHARMACEUTICAL Project:							
BLACK CHO	2	2	5	5	10	10	10
SCAR POPPY	2	2	5	5	10	10	20
				30 acres			

TABLE III: P/L Proforma Based on Expansion Program

PHARMACEUTICAL Project:

YEAR	EST. COST	NET YIELD	P/L
1	12,000.00	2,000.00	-10,000.00
2	1,200.00	4,000.00	2,800.00
3	19,200.00	10,600.00	-8,600.00
4	3,000.00	18,000.00	15,000.00
5	33,000.00	32,400.00	-600.00
6	6,000.00	46,000.00	40,000.00
TOTAL NET GAINS			38,600.00
FULL PRODUCTION	6,000.00	90,000.00	84,000.00

Estimated crop yields, and subsequent P/L proforma, are all based on bulk prices (as dried materials). They do not reflect prices available if marketed as a processed crop. The net gains, in this situation, would increase by more than 200-percent.

Cultivation costs for perennial fields (estimated) are also included. Some special machinery will need to be fabricated to harvest flowerheads. Dehydration systems should be no problem in either design or cost.

Produce production is not included in these P/Ls. However, a good rule of thumb is that most spices used for bulk produce should yield about 4x that of dried material per acre. This indicates a 75-percent weight-loss in drying biomass.

ANIMAL FEED SUPPLIMENT Project:

COMFREY - While the market for the leaf in the food industry is quite limited, the markets as a cattle feed supplement are quite extensive, especially in the dairy

the markets as a cattle-food supplement are quite extensive, especially in the dairy business. The problem comes in attempting to handle this product green. While profit margins are potentially available, there are some machinery requirements.

MARIGOLD - The *Tagetes* variety is grown as a poultry feed supplement. Its dye colors the meat and make the yoke orange. Marigold flowerheads need a yet-to-be developed "flowerhead harvester." It can be picked for profit by hand for potpourri, but this market is limited, and competition comes from Mexico.

TABLE I: Estimated Crop Yields:

	Cost/Acre	Yield	Price	1	2	3	4
	(a)	(b)	(c)		-Year -		
COMFREY	1,000/400	16,000	0.25-0.75		600	2,000	4,000
MARIGOLD	1,000/400	1,500	0.45-1.45	500	700	700	700
				Optional			
PURSLANE	2,000/400	650	4.00-8.00	1,200	2,000	3,000	4,200

TABLE II: Expansion Program

	1	2	3	4	5	6	7
			- Year -				
ANIMAL FEED SUPPLIMENT Project:							
COMFREY	2	2	5	5	10	10	20
MARIGOLD	2	2	5	5	10	10	10
				30 acres			

TABLE III: P/L Proforma Based on Expansion Program

ANIMAL FEED SUPPLIMENT Project:

YEAR	EST. COST	NET YIELD	P/L
1	4,000.00	1,000.00	-3,000.00
2	1,600.00	2,600.00	1,000.00
3	7,600.00	6,900.00	-700.00
4	4,000.00	13,300.00	9,300.00
5	14,000.00	20,000.00	6,000.00
6	8,000.00	30,000.00	22,000.00
TOTAL NET GAINS			34,600.00
FULL PRODUCTION	8,000.00	47,000.00	39,000.00

Estimated crop yields, and subsequent P/L proforma, are all based on bulk prices (as dried materials). They do not reflect prices available if marketed as a processed crop. The net gains, in this situation, would increase by more than 200-percent.

Cultivation costs for perennial fields (estimated) are also included. Some special machinery will need to be fabricated to harvest flowerheads. Dehydration systems should be no problem in either design or cost.

Produce production is not included in these P/Ls. However, a good rule of thumb is that most spices used for bulk produce should yield about 4x that of dried material per acre. This indicates a 75-percent weight-loss in drying biomass.

TABLE II: Expansion Program
OVERVIEW

	1	2	3	4	5	6	7
			- Year -				
FLORAL Project:							
BASIL	1	1	2	2	5	5	5
LICOR MINT	1	1	2	2	5	5	10
ORANGE MINT	1	1	2	2	5	5	10
				25 acres			
COTTAGE INDUSTRY Project:							
CHICORY	1	1	2	2	5	5	5
DANDELION RT	1	1	2	2	5	5	5
				10 acres			
PHARMACEUTICAL Project:							
BLACK CHO	2	2	5	5	10	10	10
SCAR POPPY	2	2	5	5	10	10	20
				30 acres			
ANIMAL FEED SUPPLIMENT Project:							
COMFREY	2	2	5	5	10	10	20
MARIGOLD	2	2	5	5	10	10	10
				30 acres			

TOTAL CULTIVATION **177 Acres, Year 2005**

TIMETABLE:

Now: Review enclosures and prepare seed order. Prepare land with appropriate cover crops for weed control and an early spring planting. Some soil amendments might want to be added at this time. You might expand a barn into some form of light dehydration, and prepare another for drying florals.

This is a good time to begin your library research and preparing farm machinery for spring cultivation and planting. Light irrigation would really help future net cash incomes.

A series of 3 8-hour intensive workshops is also recommended. They should be offered during the Fall and Winter months, as greenhouse support needs to be in place before February, 2001. This is strictly educational, and meant as a training program for those wanting to explore agriculture on the Reservation.

Spring, 2001: Your perennials should be set up in raised beds during the summer for a late summer row planting. Annuals should also be planted at this time. You may need to add some further soil amendments at this time.

July/August, 2001: Plant perennials, continue to cultivate annual fields. You may get a first cutting on some crops during this period. After first cutting, add up to 100 pounds N to most annuals.

Fall, 2001:

Fall, 2001: Harvest seed from such crops as non-hybrid Marigold and *Nigella* to reduce future seed costs. I did not take this into consideration in the P/L figures, so this could reduce farm costs significantly.

May, 2002: Decide where to plant annuals again, with a rotation schedule. Prepare machinery. Plant annuals. Prepare seed beds for further perennial expansions. You will need at least 15K plants per acre.

Fall, 2002: Harvest rootstock from perennials and expand fields, probably with a rotation of crops. I would also add soil amendments to those fields previously used for annuals, getting them ready for future work.

Fall, 2005: Again harvest rootstock for expansion program. It is recommended that perennial fields be moved every fourth year. This helps protect your pest- and weed-control programs. You can afford to move them often with the net yields per acre.

08-02-00

Elton Baldy
TSEMETA Forestry Nursery
POBox 368
Hoopa, CA 95546

RE: FOLLOW-UP ON SEVERAL ITEMS

Dear Elton:

I've only just now returned from the Saskatoon event. I've enclosed several papers I presented at that event for your review. Hope you find them useful. The event went well, and I launched 9 new titles from my Farm mini-series with Richters of Canada. See www.richters.com for details under "New."

I have yet to get positive identification on the "Mugwort" crop you got from Johnny's. It may be an unusual variety from Europe. Stay tuned, as I have forwarded it onto further experts.

I have serious interest in your Burdock Root, probably at a very good price. You estimate 500 lbs. of root? I will need a sample to show plus any COG tags that might boost the price. Please forward what you can ASAP. The final sale can take place later when the root is dug. I just like to close things now, if possible.

When I was up in Saskatoon, I was able to visit the POS Pilot Plant (Protein-Oil-Starch). This is a major extraction facility run by the

purposes. Everything is lined up for putting that program on track.

Sincerely

Richard Alan Miller

Agricultural Consultant

Enclosures:
Cc: Mick Maloy

11-05-00

RE: BUDGET START-UP DETAIL

Mick:

I had to work all weekend on another project for MT. They called both Saturday and Sunday, requesting my presence on a conference call and then follow-up work. I wasn't able to spend the time I might otherwise. Here is what I can see as literal needs:

Budget Needs from December - May

Salary, from Dec-May $12,000 1/3-time, from my offices
Office needs
Computer $ 2,000 Database + website + sales
Telephone $ 1,000 Communications/follow-up sales
Workshops (3) $ 3,000 Jan/Feb. and April

Plugs for 12 acres $ 9,000 $0.075/plant, 10,000/acre
Equipment Needs
Truck (used) $ 1,500 Delivery of plugs
Planter + trailer $ 4,500 Strawberry planter + trailer (used)

Foraging Project $ 4,000 To purchase raw materials
Processing $ 3,000 Preserving materials + packaging

This should generate a cash flow by March, in excess of $ 10,000, a 30% mark-up to costs of goods produced.

Forest Farming Project $10,000 Available cash to purchase Matsutaki

This should generate a cash-flow by March, in excess of $14,000, a 30% mark-up to cost of goods produced.

$50,000 $24,000 by April. Some of this will be needed in May to assist further plantings.

Richard Alan Miller
Agricultural Consultant

Addendum: Use Preserved Salal grant for detail on Processing aspects

Addendum: Use Preserved Salal grant for detail on Processing aspects of Foraging Project.