

**Permolex**  
ethanol ~ gluten ~ flour

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### Value-added Agriculture

*Let me introduce our company...*

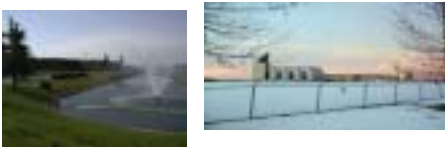
### Who is Permolex Ltd?

- A unique value-added grain fractionation facility located in Red Deer, Alberta.
- We produce bakery flour, vital wheat gluten, fuel grade ethanol and livestock feed.
- Our plant design incorporates leading edge technology, enabling us to capitalize on the benefits of integration.
- We are the first plant of its kind in North America.
- We are owned by Brent Enterprises and Doug MacKenzie and Associates. (Toronto)

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### Permolex PLANT SITE

- Situated on 24.4 acres of fully serviced land.
- Close access to CP Rail, CN Rail & Highway #2 which becomes Interstate 15 at the Montana border.



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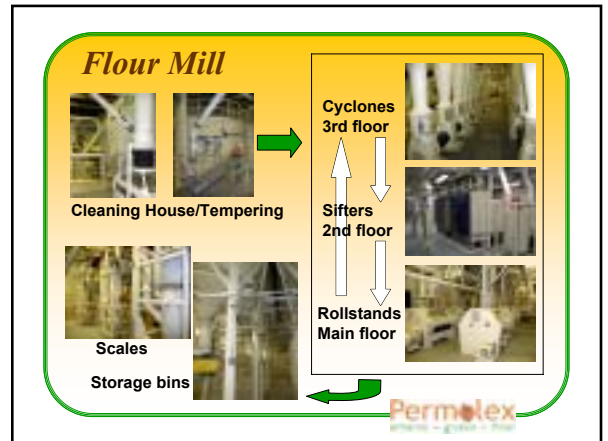
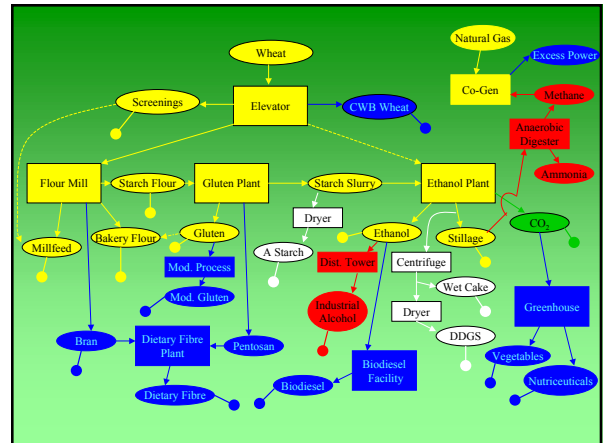
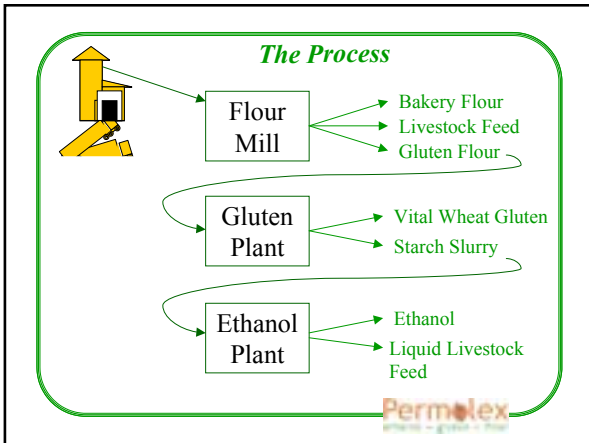
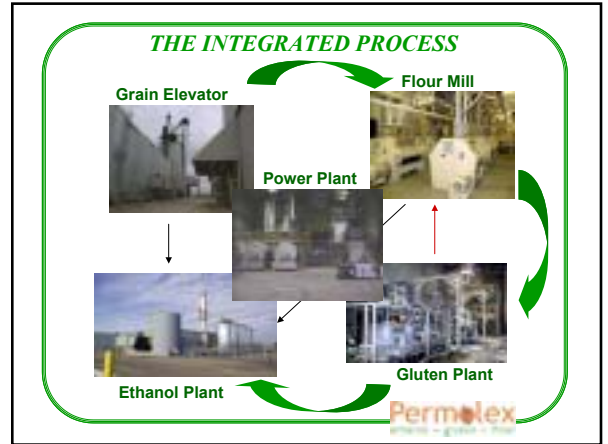
### Alberta Advantage

- Enterprising Environment
- Abundant Agricultural Resources
- Superb Transportation System
- Progressive Labour Pool



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*Let's talk about the process...*



## Gluten Plant

### Process Steps:

- Dough mixing
- Mechanical water separation
- Washing
- Drying



### Wet process



### Dry process

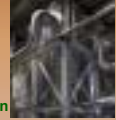


## Ethanol Plant



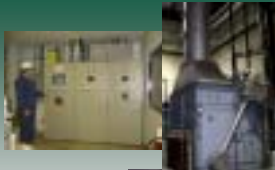
### Process Steps:

- Cooking, Liquefaction
- Fermentation
- Distillation & Dehydration
- Evaporation



- Generates 3 Megawatts of power

- Produces high and low pressure steam used in process lines



## Co-generation and Steam Plant



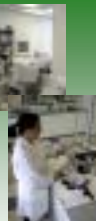
## Product Packaging



- Packaged into 50 lb bags or bulk loads



## Quality Assurance



- We are committed to the production of the highest quality products.
- Raw material & final products are tested with the latest equipment by QA staff.
- Inter-laboratory check samples are done to ensure accuracy of results.



*How about a closer look at our products ...*

## ***OUR PRODUCTS***

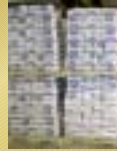
Our production facility manufactures:

- Bread Flour
- Vital Wheat Gluten
- Fuel Grade Ethanol
- Livestock Feed



## ***Bread Flour***

- Milled to the exact specifications of each customer.
- Bakery Industry.
- Preferred in high speed and continuous baking operations.
- Delivered in 50 lb bags or bulk.



## ***Vital Wheat Gluten***

- A unique water-insoluble vegetable protein with bulking and elastic properties.
- Creamy tan colored, free-flowing powder.
- Minimum 75% protein content.
- Primarily used in the baking industry.
- Other uses - meat binder or substitute, stabilizer, thickener and emulsifier.
- Packaged into 50 lb bags.



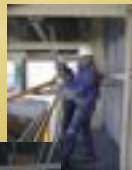
## ***Fuel Grade Ethanol***

- Anhydrous (99.5% min) and Denatured.
- The addition of 10% ethanol in gasoline reduces emissions by approximately 30%.
- Several car manufacturers are increasing vehicle production to run on 85% ethanol (E85).
- Self-load out station.
- Bulk .



## ***Livestock Feed***

- Dry mill feed and liquid feed both contain high fiber and high protein.
- Desirable ingredients in livestock rations for maintenance and growth.
- Bulk load out for both products.



***Let's talk Grain...***

### CPS wheat produced in Alberta:

• 2000	1,301,000 mt
• 2001	1,034,000 mt
• 2002	585,000 mt
• 2003	735,000 mt
• 2004	1,000,000 mt

• The drought of 2002 and 2003 become obvious.



## Red Deer Advantage



• **The Canadian Prairie Spring Story**



## Why does Permollex buy CPS Red Wheat???

- Ample Supply grown in local area
- Meets quality parameters of all our products
- Cost is reasonable in comparison to other milling wheat varieties
- Can be purchased both CWB and Non CWB
- It is a relatively high yielding crop in this area averaging 80 - 100 bushels per acre



## Why was CPS Red Wheat created???

- To create a high yielding wheat with adequate flour milling characteristics
- To supply Asian noodle flour markets and Middle Eastern flat bread markets
- It is a cost effective crop for producers



## What are CPS's Limitations?

- Protein, Protein, Protein!
- Low yields in drought conditions ie similar to Red Spring Wheat
- Line companies do not bin CPS Red wheat according to protein



## What other varieties of wheat / other grains can Permollex use?

- 1, 2 & 3 Canadian Western Red Spring wheat
- 1 & 2 Canadian Western Red Winter wheat?
- Corn (for ethanol only)
- Barley (for ethanol only)
- Other high starch wheats
- Starch, Starch, Starch!!



## Grain Procurement

- We purchase an average of 260 mts per day(95,000 mts annually)
- Approximately 70% of our grain purchases are non CWB (Ethanol, Animal Feed)
- Approximately 30% of our grain purchases are through the CWB (Gluten, Flour)
- Our producer database contains approximately 700 Alberta producers
- We are the largest processor of CPS Red Wheat in Western Canada



## What drives grain markets?

- Weather
- Supply and demand (carryover stocks and production vs. sales)
- Political unrest
- Currency
- Various issues ie new fad diets, disease, export tariffs
- CWB and world markets
- Etc.

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## Marketing Strategies.....

- Futures & options hedging tools
- Flat priced contracting (spot)
- CWB contracting
- Forward contracting
  - Basis contracting
  - Flat priced contracting

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## What determines our price for grain?

- Local feed wheat bids
- CWB Pool Return Outlook
- CWB fixed price contracts
- CWB has a set price put out to the trade after the trading session in Minneapolis has closed each day to purchase CWB grain

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## Our future.....

- Developing a new grain purchasing strategy which will possibly include:
  - protein incentives
  - acreage based production contracts
  - grain pricing orders
  - forward pricing opportunities
  - regular producer meetings in various locations
- Risk management / Hedging

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*Let's wrap it up ...*

## Results of Integration

- A flexible process flow allows us to redirect production to meet market demands and customer specifications.
- The by-products of each manufacturing step become the feedstock of the next manufacturing step to continue the value-added process.
- Freight costs are reduced by producing everything on-site.

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### *Future Opportunities*

- Sale of CO<sub>2</sub>.
- WDGS
- Sale of excess power to the power pool.
- Expansion of the facility to increase our usage of Alberta wheat over the next 5 years.
- Production of modified gluten.
- Production of modified starch.
- Tailor made fibre.
- Greenhouses.
- Industrial Grade Ethanol.
- Research and Development.



**Thanks You**



**Thanks You**