



# PODF

PRAIRIE ORGANIC  
DEVELOPMENT FUND

Investment platform established to develop organic agriculture and marketing in the Canadian Prairies

PODF builds resilience in the sector by investing in

- organic provincial associations (Capacity Fund); and
- high impact programs (Innovation Fund) related to marketing, research, policy, education and capacity development that have broad public benefit to the organic sector.

[www.organicdevelopmentfund.org](http://www.organicdevelopmentfund.org)



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## Canadian Organic Ingredient Strategy Project Partners

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**GRAIN MILLERS**



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The Canadian Organic Ingredient Strategy is funded by



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The image features a close-up of two wooden bowls filled with different types of grains. The bowl in the foreground is filled with dark brown, elongated grains, likely flax seeds. The bowl in the background is filled with lighter, smaller grains, possibly lentils or chickpeas. A wooden pestle is visible in the upper left corner, partially out of focus. The background is a plain, light-colored surface.

# **On-Farm Grain Processing**

**Infrastructure, Operations and  
Human Resources**

# Physical Infrastructure: Take Inventory

Lowest risk category includes grains that will be cooked by the end user or during secondary manufacturing, and processing that does not require the use of water

General requirements for **low risk** processing are: sound construction, sealed window/door openings, washable walls/floors with coving, and shatterproof lights

Higher risk categories may require a facility with seamless flooring, stainless steel wall covering, ventilation/exhaust systems, potable water and wastewater treatment systems

Spaces attached/adjacent to a private dwelling must be separate, with walls/closed doors

Consider farm-related hazards/contaminants that might impact your facility (animals)

Provincial Health Inspectors may be able to provide recommendations and on-site tours before starting any renovation/build projects.

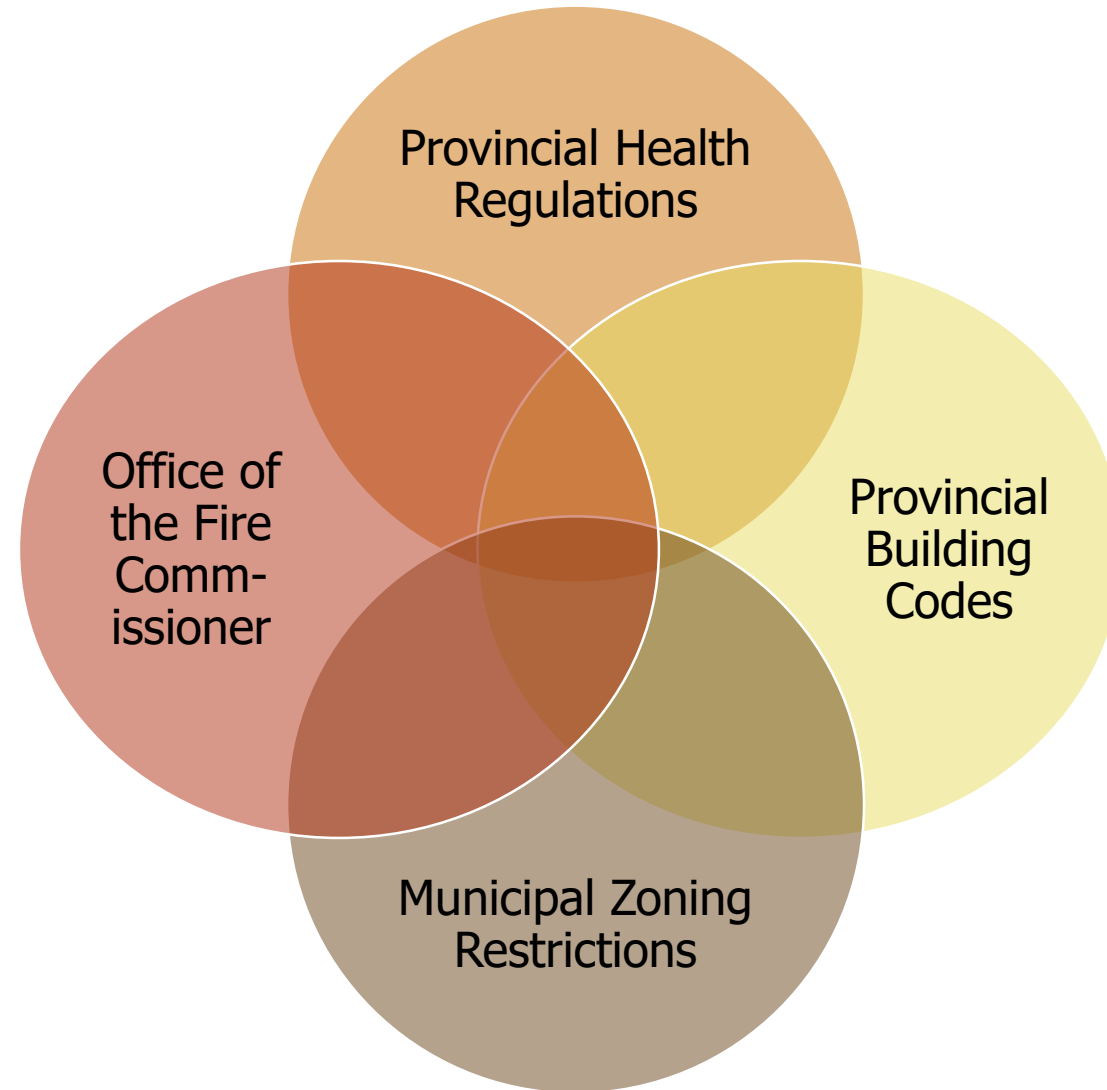
Provide inspectors with a map of your facility, including proposed processing areas, equipment, traffic flow, pest control, storage areas, and washrooms/staff area



Images: Egg Inc.

# Physical Infrastructure:

Must meet requirements of four regulatory bodies



# Physical Infrastructure: Design Considerations



Size – a 2,500 square foot facility might be reasonable. Less could be possible – more is always better



Electrical capacity (single/three phase)



Is water/ plumbing needed in processing, or is dry cleaning methods sufficient?



Dust control and additional ventilation to ensure good air quality



Shipping/Receiving Infrastructure (grain bins and augers or conveyors for harvested grain, loading doors and pallet moving equipment for outgoing product)



Traffic Flow for visitors, employees, incoming/outgoing products



Food Defence (limit possibility of external tampering)



Storage (grain, food inputs, packaging material, equipment)



Screenings – conveyance and storage



Space for growth/product expansion/reconfigurations



Level of integration with farm operations



Long term planning – how does the location fit future growth, succession or sale of business



# Physical Infrastructure: Equipment

Stationary or  
movable  
equipment  
???

Product (and screenings)  
can be moved via totes, or  
via  
auger/conveyor/vacuum  
systems

Seed cleaning equipment  
(augers, graders, screen  
cleaners, indents, gravity  
tables, spirals, aspirators)  
may be available used and  
locally (auctions, kijiji, etc.)

Processing equipment  
(optical sorters, heat  
processing  
steamers/micronizers,  
flour mills, blenders,  
packaging machines, etc.)  
are more difficult to find  
locally or in used condition

Capacity and speed – room for  
increasing capacity in the future,  
but equipment may only operate  
properly at full capacity, so  
matching scale can be difficult  
(surge hoppers)

Consider cleaning and  
maintenance procedures  
required, and process for  
flushing equipment between  
crops/batches

Consider saleability of  
equipment. Equipment that  
is difficult to find may be  
hard to liquidate, but often  
doesn't really depreciate  
(much) in value either.



# Co-Packing

An option for sharing facilities/production with similar processing businesses

Co-packing may be available for part of your processing (cleaning, a specific process, or more commonly, packaging the end product)

Can help to fill gaps (infrastructure/equipment/expertise/labour) in your own capacity, either short-term or as a long-term strategy

Must match production schedules, lead-time, minimum and maximum production runs, packaging material/size, etc.





# Growing Your Own Grain Inputs

- Using your own farm products can offer price advantages and reduce up-front inventory costs
- marketing strategy
- moderate the uncertainties of market fluctuations
- Grow varieties with attributes that are helpful to your specific processing needs
- Can you actually stop farming?!?
- Not able to choose what crop to buy
- Can't chase low market pricing
- Increasing production may take two or more years of crop & rotation planning
- Leaves you vulnerable to crop failures
- Develop alternate markets for off-grade crops or bumper crop quantities (and alternate sources for crop-disasters)

You may want to consider buying from other producers as part of your production plan



# Other Food/Grain Inputs



Look for synergies with other local suppliers



Unique products with limited suppliers can give you a distinct marketing advantage, but may be risky and create dependency



Create supplier criteria and approval processes/forms: consider whether the product must be organic, HACCP certified, kosher, allergen-free, Canadian origin, minimum shelf life, lead-time on orders, etc.



Balance higher volume purchases to reduce cost-per-pound vs. risk of carrying more inventory





Develop written SOPs (Standard Operating Procedures) to document your procedures. Include systems for verifying that your procedures are being followed. Sample SOPs available from Grains Canada

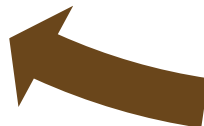
Develop workflow systems to mitigate and monitor any changes in quality



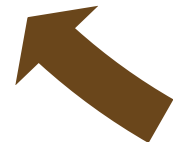
Cleaning grain: mitigate and monitor for presence of foreign materials (stones, metal, weeds, insects, etc.)



Milling and processing: develop quality parameters: colour, texture, weight, appearance, consistency from batch to batch, and (maybe) with competitor's products)



Moisture (establish thresholds for safety and storage)



Shelf Life Analysis & Best Before Date (6 months threshold for 'shelf stable')



# Quality Control



Photo Credit: Karen Patterson



# Primary Packaging

Material (Paper, plastic, bio-plastics, cardboard cartons, glass, etc)

Durability, compostable/recyclable, shelf appeal, size)

Retail – consider SUP vs gusseted bag, shelf facing size, novelty, aesthetics

Tamper proof seal (heat sealed tops, sewed bags, glued carton)

Size/Quantity – match your competitors or offer a novel size?

Costs (\$0.20-\$1.00 each)

Pre-printed packages or sticker labels

Minimum print runs, set-up/plate charges

Origin - lead time for orders, communication, food safety



# Primary Packaging – Label Requirements

Principal Display Panel (front)

- Common Name
- Weight

Country of Origin: "Product of Canada" or "Made in Canada"

Date/Lot Code & Storage Instructions

Ingredient List & Allergens

Nutrition Facts Table

Company Name and Address

Organic Logo & Statement of Certifying Body (submit label for approval)

All required information must be written in both French and English

(optional: Brand name//logos, website/QR code, recipes, company/product information (be careful with your wording!) Labels can be submitted to CFIA for approval

UPC-A Code (from GS1 Canada or UPC re-seller) (retailer requirement)

Normal width font  
8 point type except as indicated  
Thin rules – 0.5 point  
Rules centred between text

Nutrition Facts		
Per HM (MM)		
Calories #####		% Daily Value*
Fat ## g		## %
Saturated ## g		## %
+ Trans ## g		
Carbohydrate ## g		
Fibre ## g		## %
Sugars ## g		## %
Protein ## g		
Cholesterol ### mg	←	
Sodium #### mg		## %
Potassium #### mg		## %
Calcium #### mg		## %
Iron ## mg		## %
*5% or less is a little, 15% or more is a lot		

Heading: 13 point bold type  
Serving of stated size: 9 point type with 11 point leading  
Calories: 10 point bold type with 14.5 point leading  
14.5 point leading  
9 point leading  
Non-indented nutrients in bold type, amount in regular type, with 12 point leading  
Indented nutrients in regular type with 9 point leading indented 6 points  
Regular type with 14.5 point leading  
Regular type with 12 point leading  
Asterisk in 9 point with -2 point baseline shift



# Screenings & By-products



Waste stream:

- Prevent and reduce
- Recover for people
- Recover for livestock
- Compost or use as energy
- Disposal



Can sell screenings in bulk quantities to livestock producers, or value-add to those screenings by blending/formulating for specific needs



Organic feed may have high value to small-scale hobby farmers, but is sometimes undervalued in commercial quantities (dependant on volume, proximity, etc.)



Some by-products may not have monetary value, but there may be other producers who can use them for compost/growing mediums/etc. to avoid them entering the waste stream. Funding may be available for sustainable systems and waste-stream reduction (AgriInnovate)





# Distribution

## In House Distribution

Most influence over product placement, stock rotation, pricing, sales, etc

Logistical challenges in making frequent deliveries depending on your proximity and schedule

Stores may prefer not to work with individual companies directly

## Third Party Distribution

Largest geographic reach

Adds another layer between you and the end consumer (this can be a detriment or a benefit!)

20-30% margin



# Human Resources

Type of work to recruit for: Mechanical, Communications, Organizational, Production, or Distribution. Assess your own strengths and weaknesses.

Assess the labour pool and what work can be contracted out (Distributor partnership or a delivery driver? Someone to contract to build your website, or someone hired specifically driving sales and marketing?)

Match recruitment platforms to the type of employment you're offering (job ads on recruitment websites or post secondary institutions, social media or a poster in town)

Federal and/or Provincial grants and hiring incentives may be available for summer students, agricultural work, hiring those facing employment barriers, or for specific fields

Consider what you offer as an employer – is it flexible hours, some form of investment in the business, the work location, variety of tasks, skills training, other employee benefits?

May need to bring in seasonal labour, or may be able to spread out seasonal peaks and valleys in workload





# Agricultural Vs. Manufacturing Labour Codes

## Farm Employees

No restrictions on overtime

Holiday pay not required

## Family Member Farm Employees

Minimum wage not required

Exceptions to the normal restrictions around employing youth

Farm employees working in climate controlled facilities or in food production

All provincial labour standards apply

Each Province has separate legislation – check your provincial labour codes!





# Onboarding & Safe Work Procedures

First Aid Training, Equipment, and Reporting

All employers are required to provide a safe work environment, personal protective equipment, and training

Safe Work Procedures - documentation of procedures & training (required at 5 or more employees in MB, 10 or more in SK, 20 or more in AB)

Safe Work Certification

Potential Hazards:

Operating equipment, working at heights, working alone, heavy lifting, noise, dust



# Budgeting: Cost of Goods Sold (COGS)



Grain and other food inputs (might include field work expenses)



Packaging costs (retail packing, labels, boxes, pallets, shrink wrap, tape)



Labour for milling/packaging/distribution (not your labour for management or general operations)



Shipping/Delivery



Lost product, slippage, and samples





# Budgeting: Overhead / Expenses



Supplies for cleaning, maintaining equipment and facility



Maintenance costs of infrastructure and equipment



Insurance – business insurance and commercial liability (in addition to farm policy)



Regulatory costs –Organic Certification, 3<sup>rd</sup> party food safety audits (HACCP), and membership fees



Travel & Vehicle Expenses



Advertising/ Promotional



Depreciation of assets (not the capital costs of purchasing equipment)



Banking & Professional Fees, Interest on Loans



Rent & Utilities





# Pricing Your Product For Retail

## Cost of Goods Sold

Cost of Grain Inputs  
(Average market pricing of your crop may be an easier starting place than agricultural expenses)

\$15/bushel =  
0.27/lb

Estimate processing loss, screenings, & by-products (industry standards can range from 20% to 75% loss)

\$0.54/lb

Add labour, packaging, and transportation costs

+\$0.30  
+ \$0.80  
+\$0.10  
=\$1.74

## Overhead Expenses

Add margin for your overhead expenses (percentage of actual or projected sales volume)  
\$45,000/  
110,000lbs  
(2,000bu)  
(\$0.41)  
= \$2.15

## Mark-up/ Margin

Add your profit margin (10%?)  
= \$2.37

Multiply your number by 1.35 if you sell directly to a store

=\$3.20

Multiply by 1.7 if you're selling to a distributor

\$4.03

Sell Price to Consumers

# Annual/Financial Reviews

Profit and Loss (Income) Statement vs. Balance Sheets

Using financial data to assess business health

- Efficiency and profitability per unit sold
- Compare profitability of various products/sizes/sales channels
- Are there inventory fluctuations resulting in cash-flow difficulties
- Capital costs and infrastructure vs. annual profit (debt ratio or return on investment)
- Debt to asset ratio - liquidity of assets and inventory
- Year-over-year trends and predictability

Managing Growth – do you need to hit a certain target to be profitable, or do you have low enough overhead costs to be viable at a small scale?

Do you have financial goals (sales targets, profit growth, etc.) and non-financial goals (product quality, employee retention, sustainability, work-life balance, etc.). Which of these can you measure?







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**For more organic production resources:**  
[www.pivotandgrow.com](http://www.pivotandgrow.com)

**To learn more about the Prairie Organic Development Fund:**  
[www.organicdevelopmentfund.org](http://www.organicdevelopmentfund.org)