COMMERCIALIZATION CYCLE FOOD OR BEVERAGE PRODUCT DEVELOPMENT





TABLE OF CONTENTS

Introduction	pg.1
Idea Generation, Idea Screening and Concept Development	pg.3
Business Strategy Development	pg.5
Product Development	pg.7
Test Marketing/Consumer Acceptability Testing	pg.9
Commercialization	pg.11
Introduction to Market/ Product Launch	pg.13
Funding	pg.15
Product Development Resources	pg.15

INTRODUCTION

Perennia food scientists and research associates work with established and new agri-food, beverage and seafood businesses to create new products or improve current products or processes.

With our team and the facilities at the Perennia Innovation Centre, we can support product development to improve your bottom line and ensure your product is ready for market, with consistent quality and optimal shelf life.

Learn more about the commercialization cycle and how we can help you at Perennia through each step of the way.





IDEA GENERATION, IDEA SCREENING AND CONCEPT DEVELOPMENT

Idea generation is the first step in the New Product Development Cycle. During this step, internal brainstorming will typically take place. Members of your company may be involved in these sessions, including the sales and marketing departments and the technical and operations staff. During the idea phase, it's vital to evaluate feedback from customers, review competitor products and observe different food trends.

WHAT IS YOUR NEW CONCEPT/IDEA?

Checklist for Idea Generation

S.W.O.T Analysis (Strength, Weakness, Opportunity, Threats)

- □ **Perform a SWOT analysis** of existing and competing products.
 - Identify strengths, weaknesses, opportunities (e.g., co-manufacturing), and threats (e.g., competition).

Evaluate Constraints/Limitations

□ Assess equipment needs: Determine if new equipment is required.

□ **Review ingredient challenges:** Consider availability and cost.

Market Research

□ Conduct market research:

Understand market trends and competitors.

□ Consult industry experts: Seek advice to refine your idea.

Develop & Test Concepts

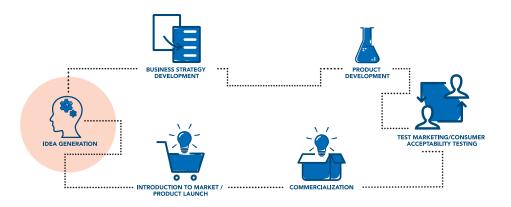
□ Define the target market:

Decide on the demographic and product focus. For example, will it be targeted towards children or adults? Will there be a health focus or convenience?

□ Test with target consumers:

Gather feedback to gauge interest.

Test these ideas with the target market to understand if consumers are interested in buying the product.



HOW PERENNIA CAN HELP AT THIS STAGE

Perennia offers technical advice during the brainstorming stage, utilizing our food scientists' expertise in the latest advances in food processing and novel ingredients. Our extensive industry exposure helps you stay on top of food trends and develop unique products. We can support idea generation using both internal and external resources, and we can provide valuable insights on your concepts through thirdparty market researchers. Nova Scotian companies may be eligible for funding to cover Perennia's services — visit our website regularly for available programs.



BUSINESS STRATEGY DEVELOPMENT

An important part of the development of a product includes developing a business strategy. Marketing, branding, pricing and costs are essential parts of the strategy that should be considered.

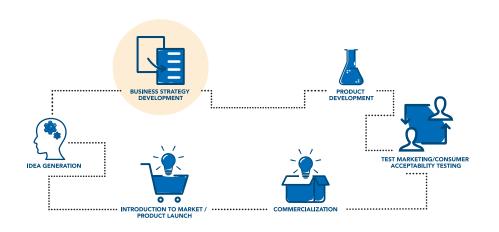
Checklist for Business Plan Creation

- □ Set objectives for the concept/idea
- □ Describe the product and its key features.
- □ Analyze and identify competitors.
- □ Detail the target market and its characteristics.
- Perform a SWOT analysis for the product.

□ Review market trends relevant to the product.

- Outline the promotional strategy for marketing the product.
- □ Develop distribution and sales strategies to reach the market.

Having a business plan in place will help to establish if the project is feasible and direct the next stages of the commercialization cycle.



HOW PERENNIA CAN HELP AT THIS STAGE

We work with many food ingredient companies, food processors, food packaging companies and equipment manufacturers to give you realistic estimates on costs of ingredients, types of products that can move forward and possible strategies to realize your concepts (ex: co-manufacturing, purchase of new equipment, line extensions). An estimation of the overall project cost and overall technical feasibility of your project are important considerations that can be discussed with you upfront.

* If you are working on an agricultural project, the Nova Scotia Department of Agriculture can assist in developing a business plan.

Please visit below link.

https://novascotia.ca/agri/ programs-and-services/ regional-services/





During this stage, your product starts to become a reality. Your idea/concept are turned into prototypes. These prototypes are refined based on consumer testing and key product attributes such as nutritional targets, cost, ingredient sourcing etc.



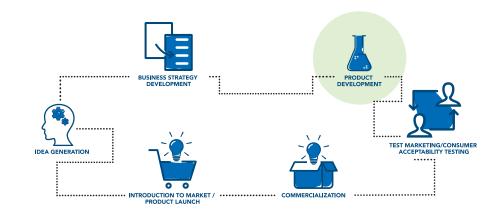
CHECKLIST FOR PRODUCT DEVELOPMENT STAGE

1. Formulations

- Develop and improve benchtop formulations.
- Source Canadian compliant ingredients from commercial suppliers.
- 2. Packaging & Feedback
- □ Get consumer feedback on the packaging material and formats.
- □ Use representative packaging for pilot/initial production.
- 3. Scale-Up
- □ Move to pilot/test production and create survey samples.
- □ Start shelf-life studies.
- 4. Food Safety and regulatory compliance
- □ Verify and validate the process and product are food safe.
- 5. Labelling & Compliance
- Develop Canadian Labelling (NFTs, ingredient lists).
- □ If your product has any claims, depending on the claims, certification might need to be obtained. For example: halal, kosher.

6. Logistics

- □ Plan secondary packaging and pallet configurations if applicable.
- 7. Finalization
- □ Finalize the prototype and product specifications, including all safety and regulatory requirements.



HOW PERENNIA CAN HELP AT THIS STAGE

Perennia is here to make your product development's journey easy and successful. Our team of food scientists knows the latest in food ingredients and processing, and we're ready to help you create a safe compliant product that stands out. Whether you need guidance or a full product development, we've got you covered.

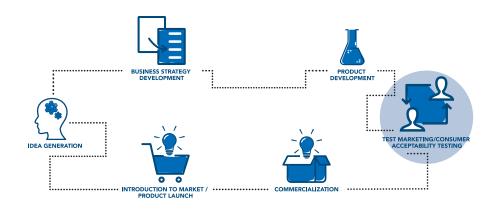
At our Innovation Centre in Bible Hill, Nova Scotia, we use benchtop equipment to create and test your product prototypes. We work with trusted suppliers and test everything to make sure your product tastes great, meets your needs, and is ready for the Canadian market.

If you need help with manufacturing, we can connect you with comanufacturers who can produce your product at scale, ensuring it's made right.



TEST MARKETING/CONSUMER ACCEPTABILITY TESTING

At this time during the cycle, your target market will have their first chance to see your product. Before introducing the product, create a plan to obtain their feedback. Not only are you looking for feedback from the consumer, but you also want to work very closely with your production team. Follow up with operations staff to troubleshoot any potential production problems, perform quality assurance and any required lab testing to confirm specifications and be sure that your package is properly assessed and the shelf life is determined. This is a crucial step between prototype samples and first production samples. Presenting prototype samples to your target market allows for feedback and adjustments before the final commitment to manufacturing. Minor adjustments can still be made during this step in recipe formulation, packaging design and marketing strategies and can save you time and money in the long run.



HOW PERENNIA CAN HELP AT THIS STAGE

Perennia's Food Scientists have the skills needed to provide support and guidance through this phase of the commercialization cycle. Perennia can perform in-house sensory evaluations as well as access larger certified sensory analysis laboratories for custom-designed sensory panels. Our food scientists can work with your operations staff to provide technical assistance with any processing and ingredient issues that arise in the scale-up to the production of your product.

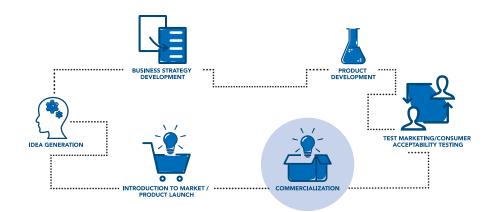
Our expert team can create Nutrition Facts tables, allergen declarations, and check that ingredient declarations are compliant. They can also make sure any claims about nutrients or ingredient functions are accurate.

We can also perform shelf life testing in real-time and in some cases, accelerated time frames. Our clients will receive analytical results and confidence in the shelf life stated on their packaging.



After completing the test marketing stage, you may have received feedback from consumers, operations and from product testing which require you to make changes to your product or packaging. The results from your sensory evaluations, operational changes and sampling will be reflected in revised product specifications. At this time, you will also look to confirm both the artwork and configuration of your packaging. Consider if any of the product details have changed and whether you will need to make updates to the Nutrient Facts or ingredient statement.

Once the final adjustments are complete, the first production round can take place at your facility or your selected co-manufacturer.



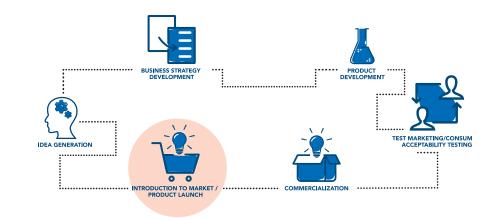
HOW PERENNIA CAN HELP AT THIS STAGE

Perennia can provide technical assistance to determine if any changes made would result in required adjustments to product specifications, packaging details and any technical problems that may arise. We can develop Nutrition Facts table that is compliant to the current Canadian Food Regulations. We can also review your packaging and labels. During the first product run, we can continue to be an extension of your research and development team by being there first hand or providing guidance on technical difficulties.



INTRODUCTION TO MARKET/ PRODUCT LAUNCH

Congratulations! Your product is now ready for the final phase, introduction to the market. This phase is also the first stage of the product life cycle. As your product is brought into market, your team can continue to monitor and report on its' success. It's also important to have a plan in place as you receive feedback from consumers on the new product.



HOW PERENNIA CAN HELP AT THIS STAGE

The final launch and success of your products is important to us. We assist in problems that may arise, ingredient quality and availability issues, and to helping you launch any line extensions with new and exciting variations.



FUNDING

All of the steps in the commercialization cycle can be completed with the guidance of Perennia services. Funding may be available to support you through the steps of the commercialization cycle. Please visit our website **www.perennia.ca** for more information.

PRODUCT DEVELOPMENT RESOURCES

Our food scientists develop informational fact sheets, videos, and other tools to aid Nova Scotia based agri-food and beverage processors through the product development process. Find hundreds of free resources on our website.



CONTACT INFORMATION

For more information and to get in contact with one of our innovation team members, please see below contact information:

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