



The Stages of Food Product Development

NYS Grown & Certified Research and Development Grant

The development of a new food or beverage product using NYS Grown & Certified ingredients typically follows three key stages:

- 1. Planning**
 - a. Ideation and Concept Development**
 - b. Concept Feasibility and Business Planning**
- 2. Pre-Production**
 - a. Product Formulation and Prototype Development**
 - b. Product Testing, Food Science & Safety Testing**
 - c. Pilot Production and Scale-Up**
- 3. Product Launch**
 - a. NYS Grown & Certified Product Branding and Packaging Design (if applicable)**
 - b. Market Testing and Distribution Planning**
 - c. Commercialization**

The goal of the NYS Grown & Certified Research & Development Grant is to help producers and processors reach **Commercialization** by supporting the critical work that takes place leading up to that point. The grant provides funding for technical services that help applicants move their product ideas forward in a thoughtful and structured way.

While these stages often follow a general sequence, they are not always strictly linear; some may overlap or repeat depending on the specific product or business model.

Applicants to this grant program must identify where they currently are in their product development journey and define what support they need to move to the next stage. Some applicants may only be at the beginning stages of researching a new product idea, while other applicants may already have their NYS Grown & Certified products in the market and are looking to increase sales.

The following guide was created to help applicants to identify:

- The core question and sub-questions each stage is designed to answer,

- Potential deliverables for each stage, and
- The technical services eligible for funding to help answer those questions and achieve those deliverables.

While this guide may not cover all the steps that could be included in food product development, this approach is intended to help applicants clearly define their needs and determine realistic and attainable deliverables for their project. Please read the Technical Requirements document for a list of eligible expenses.

1. Planning

A. Ideation and Concept Development

Objective: Identify market opportunities and generate/refine ideas for viable food product concepts that fit a market need using NY Grown & Certified ingredients.

Main Question: Is there a real market opportunity for this type of product?

Questions answered in this stage:

- Who would buy this product?
- What distribution channel(s) align with this product?
- What problems does it solve for the consumer (taste, health, convenience, etc.)?
- What problems does it solve for the producer (reduced waste/use of waste product, off-season income, new market channels, etc)?
- Seasonality - When are the NYS Grown & Certified ingredients available, and when is the market demand for the final product? Do they coincide?
- Does it align with consumer trends or unmet needs?
- What similar product(s) already exist?

Key Activities:

- Study market trends, consumer preferences, and gaps.
- Explore possibilities with seasonal or underutilized NY crops or dairy.
- Brainstorm concepts.

Potential Deliverables:

- Ideation and product concepts.

- Market research (consumer trends, gaps in the market, target customers, product positioning, farm-to-institution requirements).
- Recipe that aligns with NYS Grown & Certified requirements.

Eligible Services/Expenses:

- Market research consultants and/or trend reports.
- Food product consultants.
 - Concept development workshops or technical assistance.
- Consumer focus groups or surveys.
- Brainstorming and product concept workshops.
- Technical assistance in developing product concepts that meet NYS Grown & Certified criteria.

B. Concept Feasibility and Business Planning

Objective: Validate the technical, economic, and regulatory viability of the product and outline a go-to-market plan.

Main Question: Is it realistic to make this product using NYS Grown & Certified ingredients, and will it be profitable?

Questions answered in this stage:

- Are ingredients available, affordable, and consistent?
- Can this product be made within the target price point?
- Are there significant regulatory or logistical barriers?
- What are the company growth goals and how is ‘success’ tracked?

Key Activities:

- Assess supply chain for sourcing options and availability of ingredients.
- Conduct cost analysis and initial pricing models.
- Review regulatory constraints and labeling needs.

Potential Deliverables:

- Feasibility analysis (costs, shelf life, sourcing).
- Cost analysis (Cost of Goods Sold - COGS).

- Preliminary regulatory assessment/compliance (labeling, nutrition facts, FDA/USDA/NY AGM rules).
- Ingredient sourcing plans using NY Grown & Certified inputs.
- Business model development.

Eligible Services/Expenses:

- Business planning consultants.
- Farm-to-institution specialists.
- Regulatory compliance consultation.
- Financial modeling support.
- Ingredient procurement support (NY G&C and Other).

2. Pre-Production

A. Product Formulation and Prototype Development

Objective: Develop sample recipes using actual NY G&C agricultural ingredients.

Main Question: Is it possible to consistently produce a version of this product that tastes good, looks good and meets consumer expectations?

Questions answered in this stage:

- What’s the ideal recipe/formula?
- Does it have the right taste, texture, and appearance?
- How do different volumes of NY Grown & Certified inputs affect the product?
- What other ingredients and materials are required to produce at scale?
- What is the potential shelf-life of the product?

Key Activities:

- Create initial formulations and samples.
- Experiment with textures, flavors, and ingredient combinations.
- Optimize use of raw materials (e.g., fresh vs. frozen vs. dried).

Potential Deliverables:

- Recipe refinement using NY Grown & Certified ingredients.
- Food science validation (texture, flavor, nutrition, etc.).

- Stable prototype formulation.
 - Initial shelf life and safety assessments.

Eligible Services/Expenses:

- Food scientists or product development consultants (for in-house production or co-packing facility).
- Culinary labs or commercial/test kitchen rentals.
- Ingredient purchasing for prototyping.
- Equipment rental for small-batch trials.

B. Product Testing, Food Science & Safety Testing

Objective: Validate the product’s performance and ensure the product is safe, shelf-stable, and nutritionally accurate.

Main Question: Is this product safe, stable, and compliant with food safety regulations?

Questions answered in this stage:

- What is the product’s shelf life?
- What is the best way to store and safely distribute the product to prevent food safety issues ?
- What is the nutritional value and serving size(s) of this product?
- What food safety measures are required?
- What laws and regulations apply to this product?

Key Activities:

- Shelf-life, pH, water activity, microbial, and pathogen testing.
- Determine preservation or processing needs (e.g. HPP, pasteurization, flash frozen).
- Conduct nutrition analysis and allergen checks.
- Consumer testing.

Potential Deliverables:

- Documented food safety parameters.
- Nutrition label and ingredient compliance.
- Clear processing specifications.

- Consumer sensory evaluation (taste, appearance, texture, smell, consistency, etc.).

Eligible Services/Expenses:

- Accredited third-party lab testing (microbial, shelf-life, pH, nutrition, etc).
- Food safety consultants or HACCP plan development.
- Sensory panels or consumer tasting sessions.
- Product refinement consulting.
- Small-batch production runs for testing.
- Legal fees.

C. Pilot Production and Scale-Up

Objective: Prepare for small-scale production and manufacturing.

Main Question: How can this product be produced safely and consistently at a commercial or semi-commercial scale?

Questions answered in this stage:

- What equipment and facilities are needed?
- How does the recipe perform in larger batches?
- Are all required ingredients available for purchase consistently in their required quantities and form?
- Will a co-packer or commercial kitchen be required?
- How and where to store product inventory?
- Does my facility have the proper certifications?
- Do I or my employees have the training required for this?
- What insurance is required for this product?

Key Activities:

- Convert recipe for use on commercial or semi-commercial equipment.
- Conduct small production runs to test scaling impacts.
- Evaluate co-packers or facility readiness.

Potential Deliverables:

- Process optimization.

- Co-packer identification and trials.
- Food safety plan and training (HACCP, GMP).
- USDA or GAP certification.
- Traceability and other documentation for NY Grown & Certified sourcing.

Eligible Services/Expenses:

- Commercial kitchen or pilot facility rental.
- Food storage facility rental.
- Farm-to-institution technical support services.
- Equipment rental (small-scale).
- Food safety training, planning and certificates.
- USDA processing facilities consultation.
- Co-packer training and trial runs.
- Process validation support.

3. Product Launch

A. NYS G&C Product Branding and Packaging Design (if applicable)

Objective: Develop market-ready packaging and brand identity.

Main Question: How should this product be presented so it stands out, informs the buyer, and meets regulatory requirements?

Questions answered in this stage:

- What brand image and messaging will attract buyers?
- How should the packaging function (safety, shelf presence)?
- Does the label meet all compliance requirements?

Key Activities:

- Design label and packaging that highlights NY Grown & Certified status.
- Conduct trademark research on logo to avoid infringement.
- Finalize product claims (e.g. “local,” “high in protein,” “gluten-free”).

- Ensure packaging meets food safety, sustainability, product shelf-life, and transport needs.

Potential Deliverables:

- Packaging concept mock-ups.
- Logo, label, and packaging design.
- Trademark research.
- Nutritional and regulatory label compliance.

Eligible Services/Expenses:

- Graphic design services.
- Regulatory review of labels and marketing claims.
- Printing and testing of packaging materials.
- Marketing consultants for brand development.
- Legal fees.
- Accredited third-party lab testing.
- Food safety consultants

B. Market Testing and Distribution Planning

Objective: Validate market interest and prepare distribution channels.

Main Question: How to get this product into the hands of customers, and do they like it in its present form?

Questions answered in this stage:

- Do customers buy and enjoy it?
- What pricing, placement, and packaging work best?
- Can we fulfill orders, manage quality, and promote effectively?
- How does the product get from the production kitchen/farm warehouse to store shelves or consumer kitchens?

Key Activities:

- Test product at farmer's markets, retailers, institutions, or online.
- Get feedback from buyers, distributors, and consumers.

- Plan pricing, logistics, and delivery methods.

Potential Deliverables:

- Product placement in test markets.
 - Data from market performance.
- Sales and distribution strategy.
- Packaging, pricing, and promotion strategies.

Eligible Services/Expenses:

- Sampling programs or demonstration events.
- Retailer or distributor outreach services.
- Distribution logistics consulting.
- Participation fees for events or pilot retail placements.
- Retailer or foodservice partner coordination.
- Trial marketing campaigns.
- Customer employee product training program (e.g., farm-to-institution).

C. Commercialization

Objective: Introduce the product into the marketplace at scale.

Key Activities:

- Launch marketing campaign (digital, social, in-store).
- Ramp up production using NYS Grown & Certified supply chain.
- Monitor early sales, feedback, and batch quality.

Potential Deliverables:

- Final packaging and labeling.
- Full-scale production.
- Distribution logistics.
- Promotion and marketing plan.
- Ongoing quality assurance.

Services/Expenses:

- Initial production runs using NY-G&C ingredients.
- Launch marketing campaigns (ads, social media, PR).
- Distribution fees or vendor contracts.
- Legal fees.
- Insurance.
- Sales support and marketing analytics tools.
- Final packaging production.

D. Commercialization for Raw Ingredient Producers of Existing NYS G&C Products

Objective: Innovative pre & post-harvest activities to increase access yields, food safety, and access to markets.

Key Activities:

- Improved nutrient analysis and crop consultations
- Improved inventory management
- Improved food safety through thorough pre and post-harvest analysis
- Access to new markets

Potential Deliverables:

- Crop consultation report
- Nutrient management report
- Inventory management report
- Food safety or GAP certification consultation report or certification
- Sales, marketing or distribution consultation strategy report

Services/Expenses:

- Crop consultation regarding soil nutrient management, irrigation, plant health, disease and/or pest management
- Food safety or GAP certification consultation
- Inventory management consultation including cold storage and distribution logistics
- Sales, marketing or distribution consultation