



NutraCycle

Revolutionize Your Product Portfolio with
Upcycled Prebiotics

Enhance the health of products and unlock new revenue streams in
plant-based foods & beverages

NutraCycle

an innovation in **upcycling**

The NutraCycle upcycling service allows plant-based food & beverage producers to cost effectively manufacture their own Carbersol complex soluble fiber prebiotic ingredients, reducing the need for added sugars, texturizers and other additives. These prebiotic ingredients can be used to fortify new and existing more healthy products or be sold off-site, and waste streams will grow in value.



The NutraCycle service is divided into three distinct phases which include a **pre-study, joint development** phase and **ongoing service support**



The pre-study of the NutraCycle service is divided into a laboratory and pilot assessment phase carried out over three months. The laboratory assessment phase includes the development or confirming of a preliminary process, characterization of the product, and microbiological validation of product efficacy. The pilot assessment phase includes the scale up of the target process and validation of the composition and microbial performance.



Joint development activities include full-scale process design and modelling, product formulation work, and any work related to third-party tenders, scientific validation, regulations, financing and other network development. At the completion of the joint development phase a decision is made whether to move forward with the construction of the process.



Once a Carbersol process is operational at the site of a plant-based food & beverage manufacturer, then Carbiotix switches focus to supporting the operation of the site. Regardless, if a process is managed by a customer or outsourced, Carbiotix will be focused on continuing to provide support with regards to process optimisation, product development, scientific validation and customer leads.



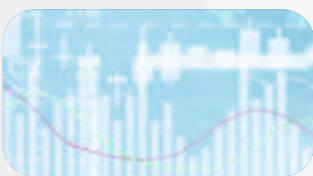
Complete end-to-end support

Carbiotix provides end-to-end support to make sure that every NutraCycle customer and project are successful. This includes support with regards to process design, operation, optimization, product development, sales of ingredients and residuals, scientific validation and regulations, and financing through partners if needed. Even operators and maintenance partners can be enlisted if this needs to be outsourced.



Improving the health of products

NutraCycle allows every customer to become a manufacturer of upcycled Carbersol complex soluble fiber prebiotics. These prebiotics can be used to fortify both existing products and products under development, helping to ensure that every customer improves the health profile of their product portfolio. This will serve as a means for NutraCycle customers to cost-effectively deliver more value to their customers in a world more focused on health and wellness.



Reducing costs and generating revenues

The NutraCycle service focuses on the cost-effective production of Carbersol complex soluble fiber prebiotics. By upcycling side-stream products on-site, customers get access to a low cost prebiotic fortifier as well as reduce the need for added sugars and texturizers, allowing for further savings. The Carbersol process produces a residual product higher in protein content and therefore higher in value. Lastly, Carbersol can be sold offsite as a new revenue stream.



Summary of key benefits of NutraCycle service

-  Higher pricing power
-  New revenue streams
-  Lower costs for raw materials
-  More effective use of raw materials
-  Higher valued side-stream products
-  Future proof business
-  Improved competitiveness
-  Improve the health of people
-  More sustainable upcycling service
-  More healthy product portfolio

The **benefits** of **NutraCycle**

The benefits of the NutraCycle service for food & beverage manufacturers are manifold. It is a low risk and relatively low cost means to attain greater pricing power in an industry with narrow margins. It is a way to future proof a business and prepare it for a market increasingly focused on health and wellness. Lastly, it is a means to stay competitive in a market where all companies both large and small are looking for a competitive edge or simply trying to keep up with product development trends.

NutraCycle offers a strategic advantage by enabling companies to fortify products with upcycled prebiotics, thereby justifying higher pricing and reducing the need for added sugars and texturizers. This not only helps in gaining a competitive edge in a market with tight margins but also aligns with an increasing focus on health and wellness, addressing the prebiotic deficiency in most adult diets. By integrating upcycled prebiotics and exploring offsite sales, businesses can diversify their offerings, ensuring resilience against market shifts and consumer preference changes, thus securing their future and maintaining competitiveness.



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