

Sustainable Solutions for Dietary Fiber Extraction from Broccoli and Other Brassicas

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INTRODUCTION

The global food industry generates large amounts of vegetable waste, including by-products from Brassica crops such as broccoli, cauliflower, kohlrabi, and pointed cabbage. These by-products contain valuable dietary fiber, which can be extracted and used in food formulations to enhance nutritional value. However, conventional extraction methods rely on chemical reagents such as acids and organic solvents, raising concerns about environmental impact and food safety.

OBJECTIVE

The project focuses on applied research for the development of an innovative, sustainable protocol for extracting and purifying dietary fiber from broccoli and other brassicas by-products. This process eliminates the need for harmful chemical reagents such as acids and organic solvents, offering an eco-friendly alternative to conventional methods.

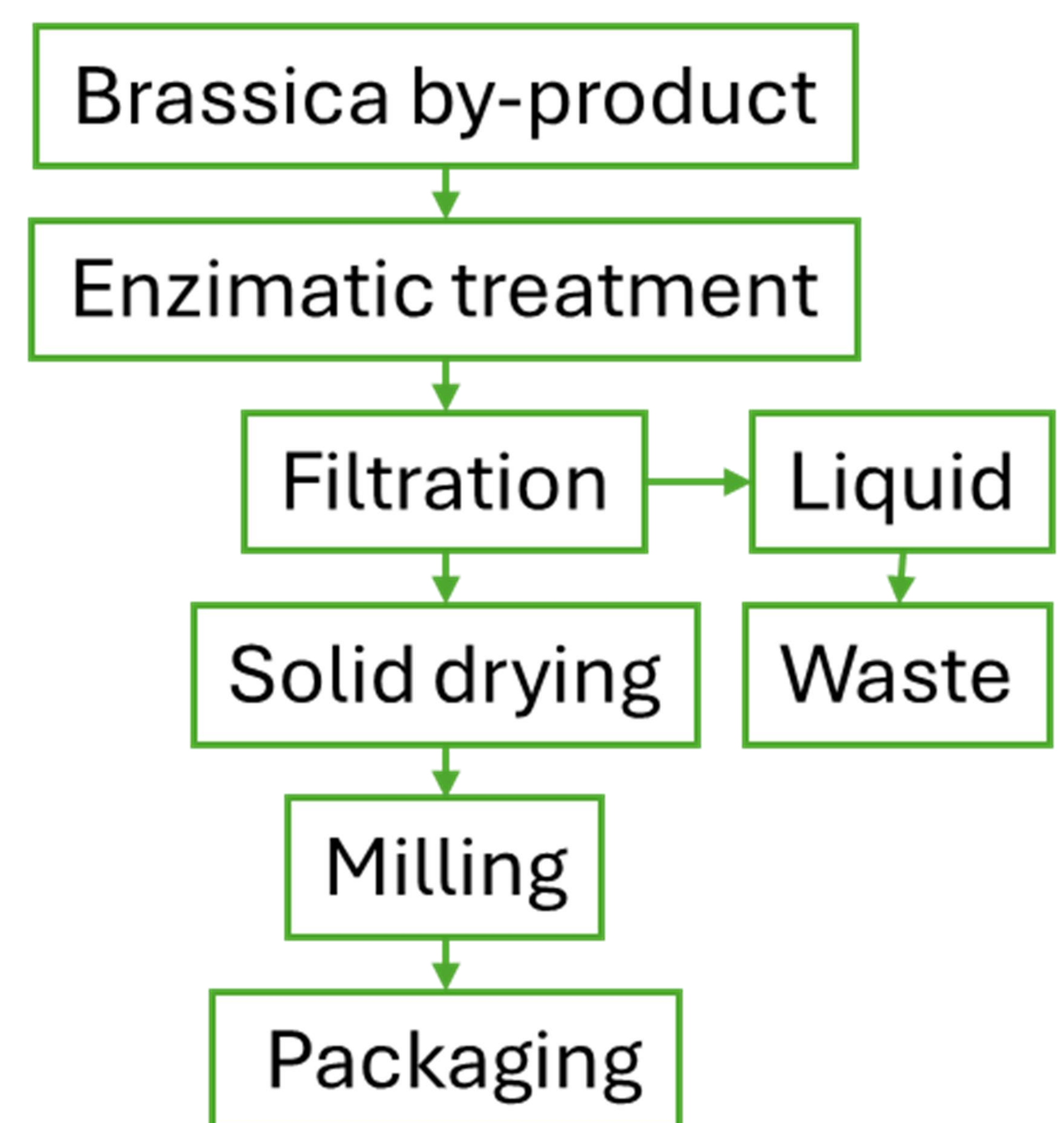


Figure 1. Brassica fiber extract process



Picture 1. Broccoli, cauliflower, kohlrabi, and pointed cabbage by-product vs extracts

Tabla 1. Edible Fiber Composition of by-products vs extracts (g/100g)		
	BY-PRODUCT	EXTRACT
Broccoli	3,5	39,5
Cauliflower	2,3	44,7
Kohlrabi	3,0	
Pointed cabbage	3,2	

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