

THEME-COTTON SEED & OIL (VALUE ADDITION/ BY PRODUCTS & NUTRACEUTICALS)



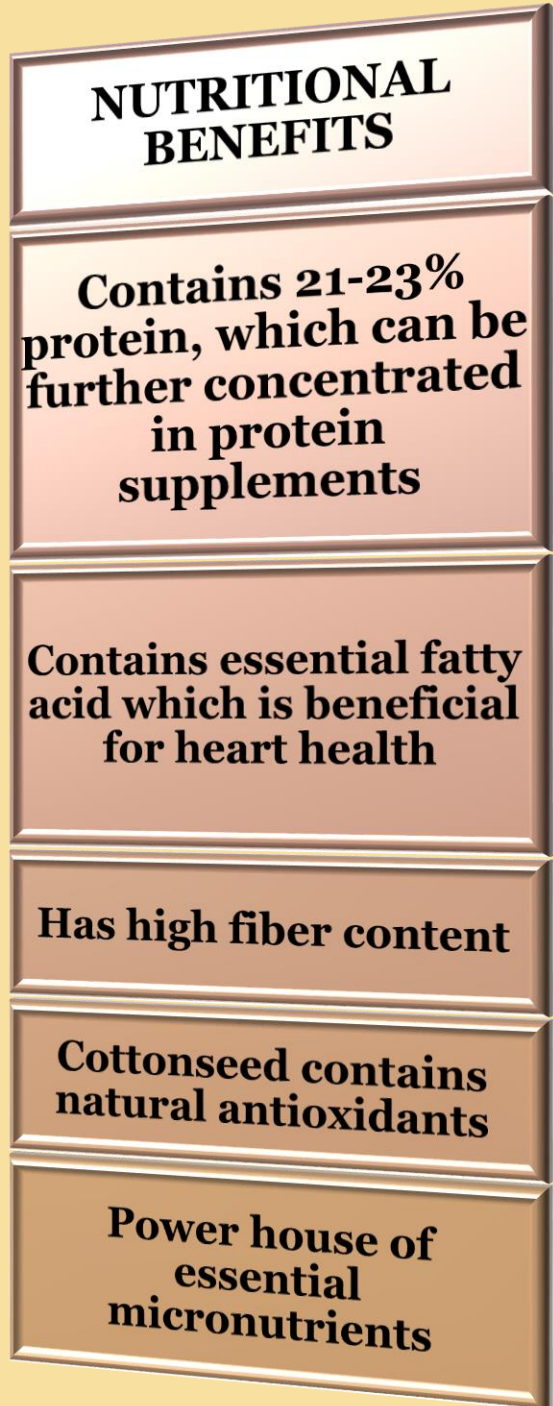
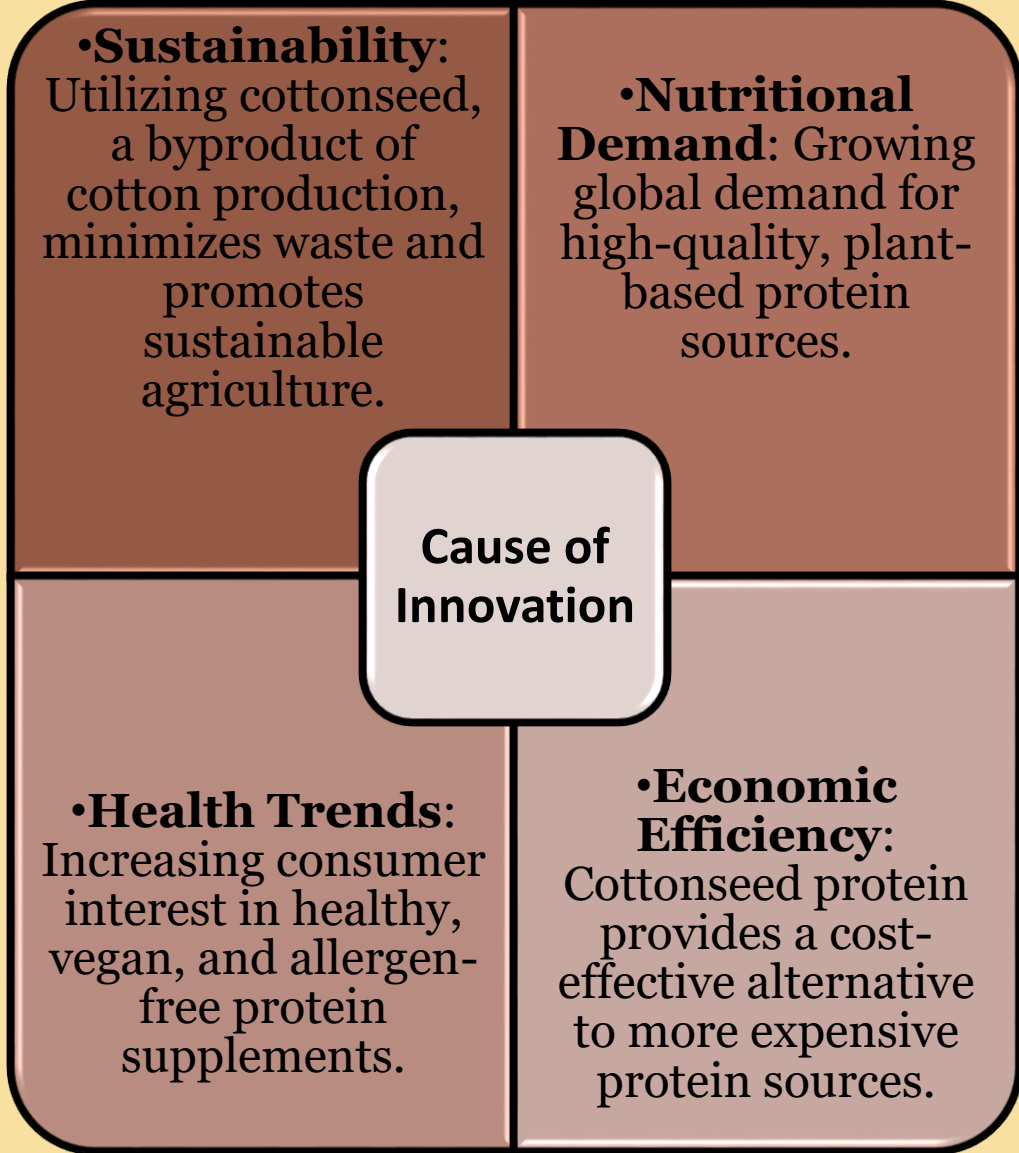
Development of a Novel Sustainable Cottonseed Protein Supplement from Deoiled Cotton Cake and Value Addition / By-products Utilization



PRESENTED BY: Ms. AALIYA SALIM SHAIKH
MSC. FOODS, NUTRITION AND DIETETICS
COLLEGE OF HOME SCIENCE NIRMALA NIKETAN
UNIVERSITY OF MUMBAI



Purpose: To provide a sustainable, high-quality plant-based protein supplement that meets dietary needs and supports health and wellness.



PROCESSING

**Cleaning and
Dehulling**

**Gossypol
Removal**

**Combining with
Soy Isolate**

**Oil Extraction-
Solvent
Extraction
method**

**Protein Isolation
using Alkaline
Extraction &
Isoelectric
Precipitation**

**Product
Formulation**

Desolventization

Drying

**Nutritional
Analysis and
Quality Control**



PRODUCT FORMULATION



KEY INGREDIENTS



COTTON SEED PROTEIN ISOLATE



COTTON SEED OIL

INGREDIENTS: Cotton Seed Protein Isolate, Soy Protein Isolate, Maltodextrin, Milk Solids, Oils (Cotton Seed Oil & Soybean Oil), Sucrose, Nature-identical Flavouring Substances (Chocolate), Fructose, Cocoa Powder, Fibers (Soy Fiber & Polydextrose), Acidity Regulators, Minerals, Emulsifier, Choline, Vitamins, Antioxidant Premix (Antioxidants, Sunflower Oil & Rapeseed Oil).

•Combining cottonseed protein powder with soy protein isolate.

•Incorporating optional natural sweeteners, stabilizers, Flavorings, Fibers, Vitamins and minerals, Antioxidants and other ingredients.

•Analyzing protein content, amino acid profile, fiber, fats, carbohydrates, vitamins, and minerals.

•Ensuring the absence of gossypol and other contaminants.

•Conducting sensory and objective Evaluation

CONCLUSION

Cottonseed and Soy Protein Powder is a blend of high-quality cottonseed and soy protein isolate, offering a unique protein source with a light beige color and neutral or slightly nutty flavor. It is gossypol-free, high in protein, and eco-friendly, making it suitable for low-fat and low-carb diets. It is rich in fiber, aids digestion, and provides satiety. It is vegan and allergen-free, making it suitable for individuals with dairy or gluten allergies. It can be added to smoothies, baked goods, or as a supplement to daily diets.





THANK YOU

Email: aaliyashaikh110@gmail.com