

International Trade Fair, Ideas,Inventions, and New Products



Prebiotic-rich Dried Potato Blend to Promote Gut Health



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Our Goal

To develop an innovative, eco-friendly, and affordable functional food that restores gut microbiome balance, promotes digestive health, boosts immunity, and serves as a quick-prepare alternative to unhealthy fast foods.

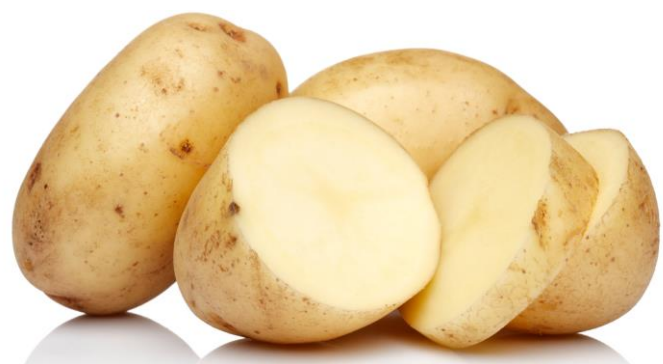
Antibiotic Misuse Alert

In Syria, the rampant misuse of antibiotics—readily available without prescriptions—devastates beneficial gut bacteria essential for microbial balance and immunity. The World Health Organization warns this fuels antibiotic resistance, complicating infection control and endangering regional health.

Importance of Microbiome to Health

The gut microbiome plays a crucial role in overall health, acting as a dynamic ecosystem of trillions of microorganisms that influence digestion, immunity, nutrient absorption, and even mental well-being. Disruptions from poor diet, antibiotics, and stress can lead to dysbiosis, increasing risks of chronic conditions like obesity, diabetes, inflammatory bowel disease, and weakened immunity. Maintaining a balanced microbiome through prebiotics—non-digestible fibers that nourish beneficial bacteria like Bifidobacteria and Lactobacilli—is essential for producing short-chain fatty acids (SCFAs) that support gut barrier integrity, reduce inflammation, and enhance metabolic health.





(a) Solanum tuberosum



(b) Allium sativum



(c) Lens culinaris



(d) Glycine max



Results

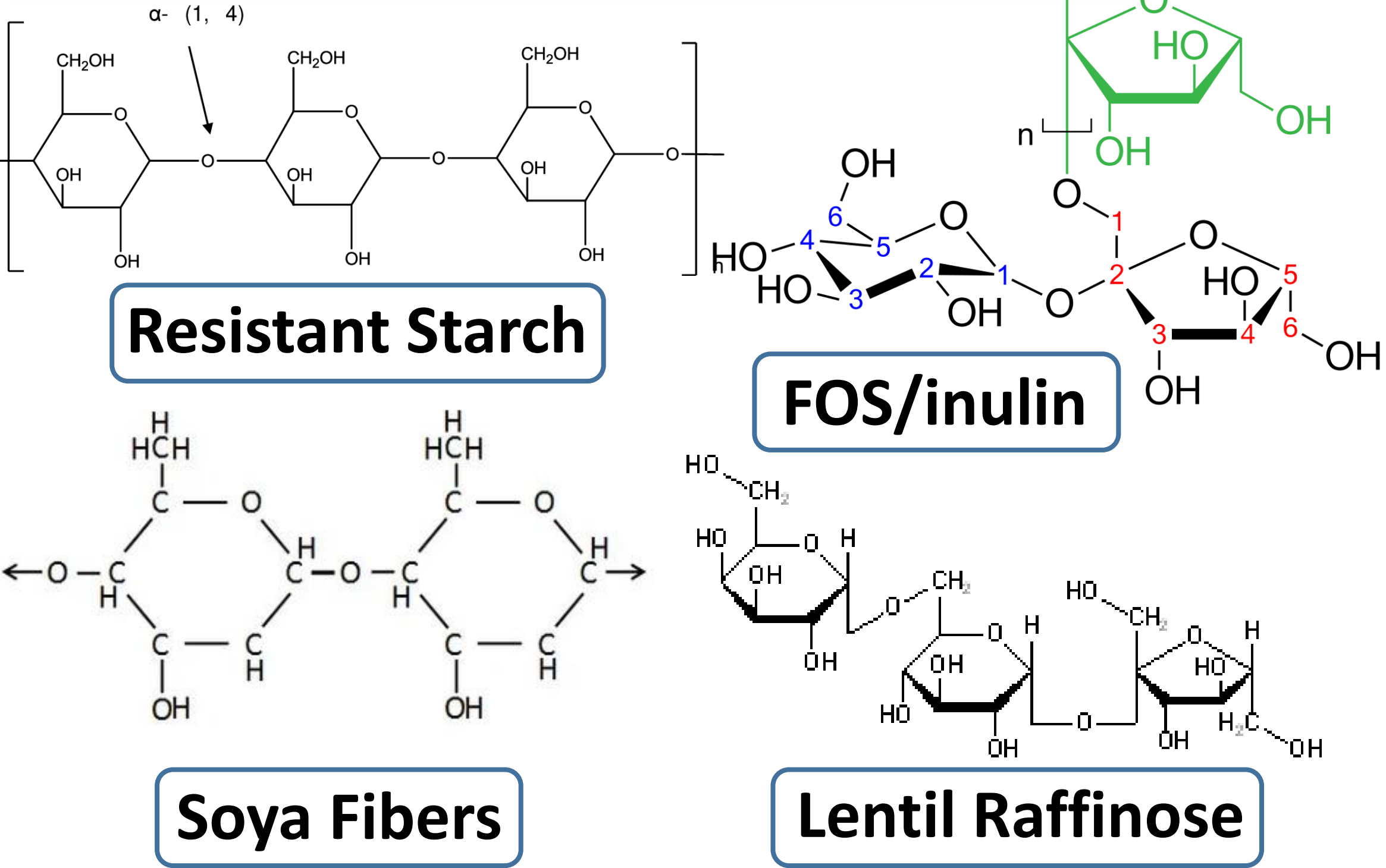
Preclinical and literature-supported outcomes demonstrate the blend's efficacy:

Microbiome Modulation: Increases Bifidobacteria and Lactobacilli populations by 20-50% via prebiotic fermentation, as seen in similar resistant starch and inulin studies.

Health Improvements: Enhances SCFA production, leading to 15-30% better gut barrier function, reduced appetite, and increased satiety in animal models.

Clinical Relevance: Human trials on comparable prebiotic blends show improved digestion, immunity, and metabolic markers (e.g., lower HbA1c in diabetics).

Sensory & Compliance: Multi-flavors achieve >80% consumer acceptance in preliminary tests, promoting adherence over traditional supplements.



Healthy Functional Food



Conclusion

This is the first integrated formula combining potato-derived resistant starch, garlic FOS/inulin, and lentil/soya fibers in a single, instant-mix product—offering comprehensive prebiotic synergy, eco-packaging, and flavor variety unmatched by existing supplements. This invention revolutionizes gut health with a natural, prebiotic-rich blend that's easy, affordable, and effective—transforming everyday ingredients into a powerhouse for microbiome restoration and holistic wellness.

References

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- 3- Roberfroid, M., Gibson, G. R., Hoyles, L., McCartney, A. L., Rastall, R., Rowland, I., ... & Meheust, A. (2010). Prebiotic effects: metabolic and health benefits. British Journal of Nutrition, 104(S2), S1-S63.
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