



PEPSICO

**New inventions and joint ventures
create transformative food innovations**

Flavoring Plant-based Protein Jerky

SUMMARY

Plant jerky will be the healthy, eco-friendly snack of the future—if it tastes good. And if the process that makes it taste good is scalable. Xinova partnered with PepsiCo to identify novel methods for improving flavor uptake in plant-based meat alternatives. Selected solutions generated by Xinova's network minimized costs through the creative use of existing equipment that achieved improved flavor uptake.

PROBLEM

PepsiCo would like to produce plant protein-based snack foods to meet consumer demand for healthy, sustainable snacks. One example is plant-protein jerky, made using high-moisture extrusion of plant proteins to create a fibrous structure that resembles meat. However, plant protein extrudates are challenging to flavor, and often begin with an unappealing flavor and mouthfeel. Suitable vegetable flavorings are available that can greatly improve the overall taste of plant-based proteins. However, it's challenging to treat plant protein extrudates at a commercial scale so that they absorb flavor all throughout.

So, PepsiCo partnered with Xinova to identify novel solutions for creating a more flavorful and appealing plant-protein jerky.

SOLUTION

Through a [Request for Invention](#), as well as an on-site [brainstorming session](#), Xinova sourced nearly 40 novel solutions from our network of global innovators. Xinova then co-invested in proof-of-concept experimentation for the two solutions of greatest interest.

RESULTS

- Innovators identified novel ways of mechanically 'pushing' flavors into jerky at a high-scale, utilizing equipment already available to PepsiCo, for a relatively low-cost yet effective method for improving flavor penetration in the plant-based jerky.
- The resulting solutions also shed novel ways of improving plant-based proteins for other food products, particularly other meat alternatives.



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