

Pleasing the Vegetarian

©STOCKPHOTO/FREEZERFRAMESTUDIO



Only some 3% of the U.S. population describes itself as vegetarian, according to a 2009 Vegetarian Resource Group (VRG) survey conducted with the polling firm Harris Interactive. However, when considering the emerging community of semi-vegetarians—also called “flexitarians”—who eat meat only occasionally, the numbers are greater. A 2008 Cultivate Research study found that some 13% of Americans qualify as semi-vegetarian, eating meat at fewer than half their daily meals, while 26% of the public had actively reduced meat consumption over the previous year.

Fortunately for consumers of all types, today’s vegetarian proteins can hold their own at the center of the plate. Improved processing technologies have yielded a bumper crop of meat ingredient-like, textured vegetable proteins that make meeting meat-reduction needs both more practical and more palatable.

For centuries, cooks in Asia manipulated vegetable proteins to create foods like *tempeh*, *seitan* and tofu. While not approximating the taste or appearance of meat, these products approached meat’s chewing quality and provided a source of high-quality protein.

Recently, ingredient technologists have made considerable improvements to the sensory quality and practical functionality of vegetarian, meat-free foods—as they have more closely reproduced meat’s appetizing texture, structure, taste or appearance.

Take the latest evolution in texturized vegetable protein products. Solbar makes Supertex specially extruded blend suitable for use in center-of-the-plate vegetarian applications. Touting the protein as a genuine advance over what came before, David Kraus, global applications manager, Solbar, says, “We’ve fine-tuned the whole process, from the ingredient formulation and extruder screw configuration to the mixing time, temperature and cooling protocol. This lets us produce a texturized blend that takes meat-free meals to a whole new level.”

The product starts with a blend of high-quality ingredients. Fed into a twin-screw extruder, the blend’s proteins denature and reform in a configuration that, upon exit from

the extruder, expands into a fibrous structure with a texture characteristic of meat.

The upshot is a juicy, meat-like vegetarian option with improved textural and chewing qualities, superior water-holding capacity and a bland taste and pale color that manufacturers can customize to fit any number of flavor profiles and identities. And, adds Kraus, it is easier to work with. “Instead of blending the functional soy proteins, textured soy particulates, stabilizers and texturizing agents in-house, food technologists and new product development managers can use Supertex as an all-in-one solution for vegetarian applications,” he says.

Kraus suggests pre-hydrating Supertex in an excess of hot water and shredding for a fibrous, muscle-like texture, or chopping in a bowl chopper “for a more uniform texture similar to that of frankfurters.” Either way, the product is amenable to a variety of end-forms, from burger-style items and deli slices to meatless sausages and even restructured hams. “Once hydrated,” he says, “it’s as chewy as meat, with a clean taste that can serve as a vehicle for any type of flavor or seasoning.”

“And, of importance to vegetarians, the Protein Digestibility Corrected Amino Acid Score (PDCAAS), which measures protein quality based on human amino acid needs, finds isolated soy protein scores a ‘perfect,’” says Kraus. “Vegetarian food producers have used unique blends of vegetable proteins for years as a very nutritious, cholesterol-free textural solution,” he adds. “It’s a powerful tool for pleasing consumers, and now more than ever, it’ll have them coming back for more.” **PF**

For more information:

Solbar • Israel • David J. Kraus • +97 288 632 111
info@solbar.com • www.solbar.com

Why Reduced Meat Consumption

According to Datamonitor, the European meat substitute market hit \$2 billion in 2009 and is projected to reach \$2.4 billion by 2014, while the market value in the U.S. is expected to climb from \$326 million in 2009 to \$368 million in 2014. Why the interest?

Research shows populations deriving most of their calories from plants suffer less obesity, heart disease and other chronic illnesses; live longer; and are largely healthier than those dining higher up the food chain. Additionally, food safety outbreaks linked to meat, in addition to a generalized fear of swine flu and bovine spongiform encephalopathy (BSE), have given some pause, when considering where to get their protein. Increasing meat prices and ethical qualms over the treatment of animals and/or concerns over environmental sustainability of meat have also created interest in plant proteins. A 2006 report of the UN’s Food and Agriculture Organization (FAO), notes meat production contributes between 14-22% of the world’s 36 billion tons of annual greenhouse gas emissions.