

Fat and Salt Reduction: Choosing the Right Flavors

The importance of limiting fat and salt intake is well ingrained in consumers' minds. Food product designers often need help, however, in making sense out of the morass of technical information available on just how to reduce the fat and salt contents of food products while maintaining quality.

One aspect — the flavor — can be particularly challenging. For example, replacing sodium chloride with potassium chloride, a common technique for reducing salt levels, often leads to bitter off-notes. Adjusting the fat content of foods also can yield poor flavor results.

Flavor Dynamics of Somerset, NJ, offers a way to develop fat- and salt-reduced versions of existing food products without the sole use of potassium or other ingredients that contribute off-notes. This approach, dubbed the "Flavor Profile Method," involves analyzing the flavor profile curve of the fat- or salt-reduced product and using the proper natural flavors to restore the flavor profile to the smooth, well-rounded curve of the original food.

For instance, a flavor profile curve might indicate that a food is perceived as too salty up front. In this case, a salt toner might help. If the product is not salty enough, a salt enhancer could be added. A masking flavor might improve a product that has off-notes coming from the base. Other flavor notes can give a lift when there's a drop-off toward the end of the flavor profile. And a background natural fat

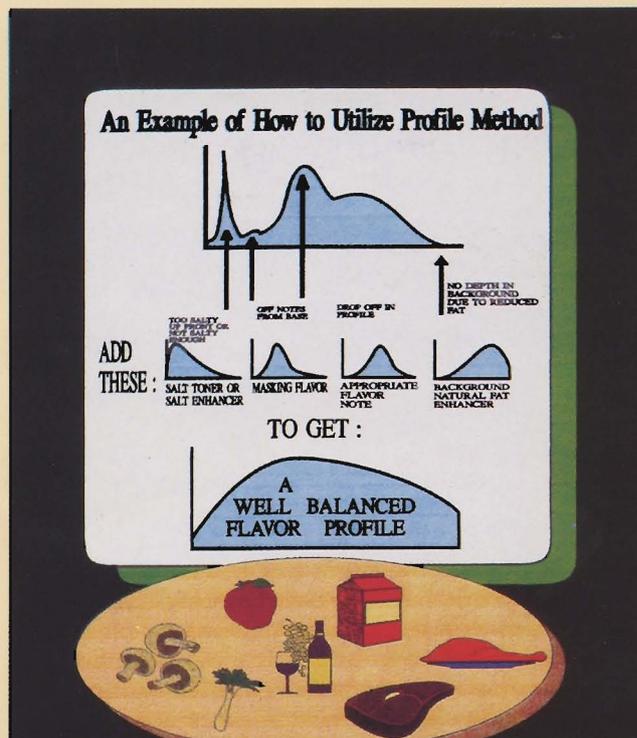
enhancer can add depth to the flavor of a reduced-fat product.

Saltiness in a product is usually noted "up front" in the flavor profile curve, while fatty character is most often perceived in the middle and background, the company points out.

Recognizing that fatty character also has to do with aroma and texture, the company says it strives to enhance whatever fatty character exists in a product by taking advantage of synergies among the senses. For salt-reduced food products, it focuses on augmenting the salty taste of the food with flavor components that also contribute to the product's aroma.

Flavor Dynamics goes a step further by taking into account the effects of pH, processing conditions and other parameters on the performance of its flavors. It designs flavor systems to meet individual criteria.

The company's line also includes natural processed flavors, including chicken, red meats and vegetables; all types of natural flavors for cheese; natural cheese flavor



enhancers; beverage flavors for teas and waters, including raspberry, peach, passion fruit and others; as well as the above-described salt and fat enhancers. ■

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