



When Anne Albertine gets creative in the kitchen, millions taste the results. As a research chef, she mixes good taste with good science, creating recipes for Taco Bell restaurants at its corporate headquarters in Irvine, California. Her tacos, chalupas, and burritos fill the menus of more than 6,500 restaurants. “My team and I make restaurant quality food that can be mass produced,” says Anne, “so the culinary quality—the freshness, taste, and texture—has to hold up.”

Research chefs, also called product development or food innovation chefs, create new foods for restaurant chains, coffee shops, and food manufacturing companies. They blend culinary training with a knowledge of food science. “As chefs, we can make food that tastes good and has visual appeal,” says Anne. “We can weave flavors together.” But research chefs also understand food preservation, mass production, and the technical terms used by scientists. And they use this knowledge in their recipes.

Research chefs get ideas for new menu items from many different sources. They often use the results of customer surveys to determine what customers crave. Suggestions are general. They might include requests for a large portion size, a low price, or a certain flavor, such as smoky or sweet. Research chefs give the ideas substance by creating several different recipes to match these characteristics. “My job is to create options,” says Anne. For every product that makes it to the public, researchers cook up 30 to 100 alternative recipes that never make it out of the laboratory.

Research chefs also find inspiration by following trends in consumer tastes. They sample the menus of fine restaurants, often traveling abroad to stir up their creativity. And chefs read culinary magazines and study cookbooks, searching for recipes to modify.

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# *You're a what?* Research

With a set of food qualities in mind, research chefs start experimenting with ingredients. Anne often begins her day with a trip to the grocery store. “I pick up fresh ingredients,” she says, “then go play in my test kitchen.” She might try different styles of chopping, compare grilling an ingredient with frying it, or contrast vacuum-packed ingredients with frozen ones. In one recipe, Anne was striving for the just right level of spiciness and the best type of cheese to give a toasty flavor. She uses her technical expertise to pick ingredients that will taste good when cooked in bulk, under the real world conditions of a restaurant.

Anne’s recipes also need to be convenient. To make a burrito that was portable, for example, she decided to grill it. The grilling process seared the burrito so it would stay closed, even when it held more food than the other burritos did.

A research chef’s test kitchen is similar to the kitchen of any professional chef, with heavy-duty mixers, salamanders—tools for browning the tops of food—and other gadgets. But a research chef’s kitchen is designed for precision. Graduated cylinders stand in for measuring cups, and scientific balances that are accurate to the milligram replace the standard countertop scales. Large-batch recipes have to be detailed and accurate so that they can be reproduced in every restaurant. “We strive for quality and consistency,” says Anne.

At each stage of development, recipes are tested with customers. In the first testing session, a focus group of customers might choose among 50 or more pictures and written descriptions of

possible menu items. “I let the customers tell me what they like,” says Anne. “I’m cooking for them, not myself.”

Eventually, focus groups taste samples of the most appealing of the proposed foods. Responses are taken during experiments conducted in sensory labs by food scientists and marketers. Anne observes and learns from these experiments. “People might say a product is too messy, too spicy, or too expensive, so I tweak it,” she says. “With food, small changes in ingredients can make a dramatic impact.”

When Anne isn’t fine-tuning recipes, she meets with other members of the staff. “Development is a collaborative process,” she says. Financial experts check a recipe’s profitability. Market researchers confirm its popularity. Food scientists concentrate on food safety and other considerations. And training and operations managers ensure that the restaurant crews will be able to make the food quickly and well.

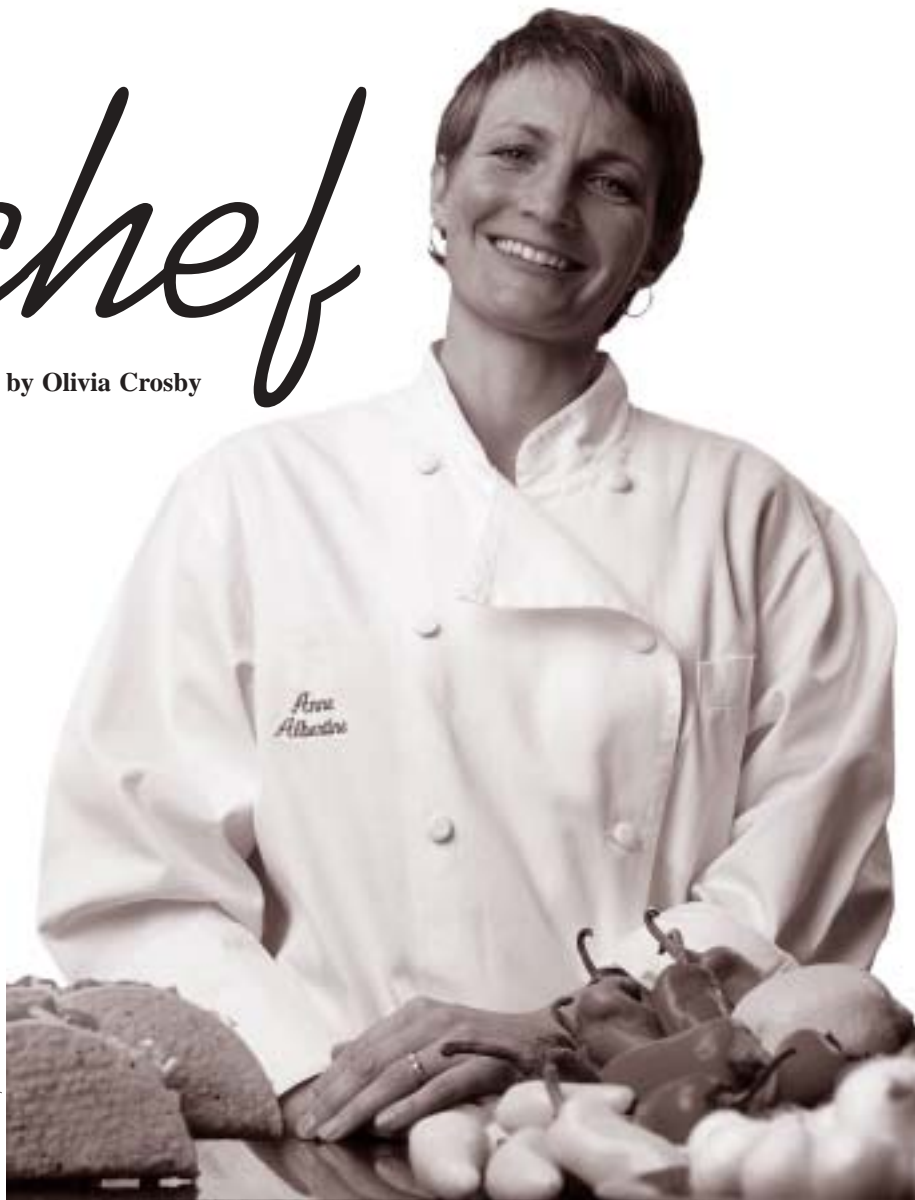
Meetings like these highlight non-food-related skills that research chefs need in their jobs: good communication skills and the ability to persuade. “You have to prove your hunches,” says Anne. She gives evidence that her ideas will be successful, especially when they require a large monetary investment, such as new restaurant equipment.

Research chefs who work for food manufacturers instead of restaurant chains perform slightly different tasks. They help food scientists develop flavor additives and prepared and frozen foods. They consult with restaurant chefs to learn what they need and explain flavor possibilities. If the restaurant wants a

# chef

by Olivia Crosby

Photo courtesy of Taco Bell



lemon flavor, for example, should it be acidic, sweet, or peely? Should it be liquid or dry? Research chefs translate the specifications of the restaurant into the technical language of scientists. Research chefs also test food scientists' products, using them in recipes to make sure they taste good.

To gain their unique mixture of skills, most research chefs earn a degree in culinary arts from a school accredited by the American Culinary Federation. And they take additional classes in food science and chemistry. Anne received a bachelor's degree in general science and

worked in consumer product development before following her love of cooking and getting her culinary arts degree. After graduating, she completed several internships with chefs experienced in fine dining, an experience she recommends highly. "Intern with as many different people as you can," she says. "It's important to learn different techniques and to build contacts in the industry."

The Research Chefs Association offers certification to research chefs who have culinary education, 3 to 5 years of experience in both research and culinary arts, and a passing score on the

certification exam. The Association also offers a culinary scientist certification to those who have a bachelor's degree in food science, at least 8 weeks of accredited culinary education, research experience, and a passing score on a written cooking exam.

The Research Chefs Association had almost 1,400 members this year, but the number of research chefs may be higher or lower than that number because not every member is a research chef and not every research chef is a member. According to a survey taken at the association conference in 1999, earnings varied widely for research chefs, but many experienced chefs earned between \$70,000 and \$90,000 per year. This suggests that research chefs often earn more than other chefs do. The Bureau of Labor Statistics does not collect data on research chefs.

The benefits of working as a research chef extend beyond earnings. Unlike restaurant and cafeteria chefs, who usually work weekends and evenings to prepare meals and supervise kitchen staff, most research chefs work standard business hours. And although they have deadlines to meet, research chefs usually work at a more relaxed pace than their restaurant counterparts.

The chance to be innovative adds spice to the job. "I'm always looking for a new way to achieve something in a recipe," says Anne.

And when a recipe succeeds, research chefs share it with a wide audience. "I love seeing a product go national," Anne says. She also enjoys seeing people eating and liking her creations—and if people discover what her job is, they often tell her which of her menu items are their favorites.

Knowing that her creations are popular adds zest to Anne's work, but the work itself is what she likes best. By mixing a passion for food, a knack for science, and a flair for creativity, she wrote a recipe for a career she loves. 