

## FROM CLASSROOM-TO-CAFETERIA:

# NY schools pilot study sparks 'new food' tastes

**A**fter tasting eight kinds of greens, 300 students who took part in a pilot program at Tru-mansburg Central School, NY, ranked kale at the top of the list. They devoured a 14-spice Indian curry with fruit chutney and pronounced it delicious. Many even went home and pestered their parents to buy whole grains or to serve a squash casserole for dinner.

Researcher Antonia Demas was not surprised by the reactions, since most students normally eat an unadventurous diet in their mostly white, rural home town. They proved her hypothesis that children will accept unfamiliar foods when they are introduced in a participatory classroom setting before being offered in the school cafeteria.

compliance with national dietary guidelines. Research shows that children often reject changes in familiar foods, according to Demas. Instead, her study introduced low-fat foods of other countries.

**Phase 1: the classroom:** Twelve classrooms of students in grades K-4 were the intervention group, while the remaining half of the student population acted as a control group.

Though she is now designing a more elaborate portable kitchen, Demas found that a cart equipped with a hot plate and several pots was adequate for demonstrating a variety of simple dishes.

In choosing recipes, she took her cue from teachers and the curriculum.

• On Martin Luther King Day, the menu consisted of sole stew, black-

through the New York commodities program, even if they were on the USDA list.

"When I asked for brown rice or lentils, the response was, 'Do you want a truckload?'" says Deborah Bush, school lunch specialist for Tru-mansburg. "If a product is sitting in the warehouse and not being ordered by enough schools, they phase it out." Kidney beans, bulghur and couscous were other items that usually had to be purchased on the open market.



**Learning new foods:** "When children know something about the food, or have cooked it themselves, their attitude changes. They get over their fears, and tasting new foods becomes a fun part of learning," says Demas, a research assoc. in the div. of nutrition science at Cornell Univ. in Ithaca, NY.

A second goal was to bring the school lunch menu into

eyed peas, corn and collard greens.

- While studying China, students learned how to chop food with a cleaver and cook it in a wok or steamer.

- During a social studies unit on American Indians, Demas brought in an Iroquois birch bark container used to carry maple sugar candy. (The bark container came from her own collection, but she points out that cultural artifacts often can be borrowed from parents or others in the community.)

**Food chemistry classes:** Science classes offered a chance to talk about food chemistry, especially the links between diet and health. Blind taste tests of five products, ranging from skim milk to cream, showed students the characteristic taste and "feel" of foods with varying fat content.

Participation was key. "Adults might be reluctant to put their hands in a bowl of dough, but children are delighted," says Demas. The children were encouraged to invent recipes, complete with creative names, such as "Good and Good-for-You Couscous." Classroom votes on favorite foods—followed by schoolwide votes—also kept interest high.

**Phase 2: School lunchroom:** Ingredients for the new menu items often could not be ordered

Bush tried not to modify recipes when producing them for the whole school, but equipment limitations sometimes intervened. "Greek rice pudding was the toughest one." Cooked in a steamer, it was runnier than when prepared on a hot plate in the classroom.

Because of time-constraints, there was little chance to test recipes, and training cafeteria staff was difficult when ingredients were unfamiliar to Bush herself. The research plan called for cafeteria staff to learn about the foods along with the children, but they did not participate in classes until the end of the year.

Any who feared being put on the spot were mistaken. "They helped prepare the food, and the children really looked up to them as experts."

Winning prestigious prizes from the Society for Nutrition Education and the USDA built support for the menu changes, according to Demas. She listed 60 names on the applications, including every cafeteria worker. "It was a community effort, and everyone needed the recognition," she says.

**Measuring results:** When the "target foods" were served in the school cafeteria, the intervention group was much more likely to eat theirs than the control group which lacked classroom exposure.

To quantify the difference, Demas enlisted volunteers to work on specified days in the lunchroom. When children returned their trays, they



'Adults are reluctant to put their hands in a bowl of dough, but kids are delighted.' Kids learned to use chopsticks.

were asked the name of their teacher, and that information was used to categorize leftover target foods. Leftovers from the intervention and control groups were weighed separately and compared.

To find out how the project influenced family eating patterns, Demas sent home questionnaires asking parents whether their child had requested any new foods.

More than 80 of those in the intervention group asked for a target food, such as collard greens, or for a dish by name, such as "Three Sisters Casserole" compared to only four in the control group.

**A familiar story:** Despite its success, the nutrition education program was suspended during the 1994-95 school year for lack of funds to pay for classroom cooking ingredients and research costs.

Next year's school budget was defeated recently and, in such a climate, it seems unlikely that nutrition education will be funded by the school system anytime soon.

Demas has applied for an outside grant in the hope of continuing the program next year.

by Toni Lydecker



Introducing low-fat food items from other countries makes kids more willing to experiment, researcher Demas says.

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