Lower Fat French Fries Made From Rice

People who love french fries but need to cut their fat intake may soon be saying that the nice fry is the rice fry.

This new french fry has 25 to 50 percent less fat than regular fries, says ARS food technologist Ranjit Kadan, who is with the Southern Regional Research Center in New Orleans, Louisiana.

"Basically, the main ingredient is rice—that's the good part of it," he says. "Since we are starting with rice flour, we can fortify it with protein, vitamins, and minerals to make an even more nutritious, wholesome food.

"Right now, they taste just like rice, but the thing to remember is rice has a very mild taste, and you can flavor it with onions, spices, or anything."

This new product will offer consumers a way to enjoy a snack and still maintain a healthy diet, Kadan adds. Rice is part of the bread and cereal food group that federal dietary guidelines recommend as the main staple of any diet. Those guidelines also encourage consumers to get less than 30 percent of their daily calories from fat.

The new fries start out as fine, white rice flour. After addition of water, the mixture is extruded through a screw-type machine and molded into conventional french-fry shape—much like commercial breakfast cereals are formed.

Although no commercial production process has yet been developed for the new snack, the fries would probably be cooked like regular french fries. That is, they would be fried in oil at a factory site and shipped frozen to consumers who could re-heat them in a microwave or conventional oven.

When fried, the snack is crispy on the outside and fluffy white on the inside. When analyzed, it is significantly lower in fat than the average potato french fry.

DAVID NANCE

ARS food technologist Rajan Kadan samples the delicate flavor of his rice French fries. (K7085-1)

Kadan is uncertain why rice fries are lower in fat, but suggests it could be owing to subtle differences in the chemistry of the two foods.

In the 1980's, researchers at an ARS laboratory in Berkeley, California, developed a frozen rice product that was covered with an outer layer of ground potato flakes and deep fried. That product was not made of rice flour, but kernels.

Kadan says his research involves making a snack that looks more like a french fry and has similar textural qualities. A food processor, Rishellco, Inc., in Crowley, Louisiana, is looking into manufacturing the new product.

The new snack would do more than just offer dieters a chance to enjoy french fries again, however.

Each year, rice growers have to sell broken kernels at a lower price. While whole rice can bring up to 24 cents per pound, broken kernels sell for about 7 cents. If more uses can be found for broken kernels, value will be added to a product that the market now discounts.

Broken kernels are used for brewing, baby and pet foods, and even as snacks such as rice cakes. But industry still craves more ways to use them.

"Value can be added to rice bran and broken kernels by using them and their components—the starch, protein, fiber, and oil," says chemist Elaine T. Champagne, who oversees the rice fry project. "Rice growers need to find new markets, and this may become another way they can sell their product."—By **Jill Lee,** ARS.

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