

## A Pirate's pecan pie recipe

## Gut microbiome affects weight loss

ECU News Services

Pecan pie is a Southern staple and a perfect dessert for holiday meals. With Thanksgiving just around the corner, a certified pecan expert has shared her go-to pie recipe.

Karen Haithecock, a 1973 East Carolina University graduate with a degree in home economics, has been growing and selling pecans with her husband, Tim, for 20 years.

Their farm in Seven Springs has more than 600 pecan trees in 15 varieties. Tim handles the growing, and Karen takes care of marketing and selling. Their pecans can be found online, in local grocery stores and co-ops, as well as restaurants including Chef and the Farmer. They're members of the North Carolina Pecan Growers Association, Southeast Pecan Growers Association and Goodness Grows in the state.

"It's hard work, but the orchard is so beautiful and peaceful. And then you have all those pecan pies and all those desserts," Karen said.

But you don't have to feel too guilty about indulging, she said.

"Pecans are healthy for you—high in fiber, heart healthy, with antioxidants and 19 vitamins and minerals. It is a good feeling to work with a healthy and delicious product."

To grow their business, Karen recently participated in the Accelerate Rural NC program sponsored by the Miller School of Entrepreneurship in ECU's College of Business. The program helps small businesses develop e-commerce and innovative products in niche markets.

"It was nothing short of



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Alumna Karen Haithecock's pecan pie is made with pecans from her orchard. She and her husband, Tim, own more than 600 pecan trees in 15 varieties.

inspiring. We heard directly from many successful business owners, and it opened my eyes to new possibilities," she said.

Last year, the Haithecocks had a record crop. "The limbs were breaking on the trees it was so heavy. This year is a little lighter, but should be excellent," Karen said.

Whether you pronounce it PEE-can or Puh-KAHN, try out this Pirate-approved pie recipe.

### Southern Pecan Pie

#### Ingredients:

- 3 large eggs
- 1/3 cup butter, melted
- 2/3 cup white sugar
- 2 tablespoons brown sugar

- 1 cup dark corn syrup
- 1/4 teaspoon salt
- 1/2 teaspoon vanilla flavoring
- 1 cup pecan halves or coarsely chopped
- 1 9-inch unbaked pie crust

#### Directions:

- Heat the oven to 350 F.
- In a bowl, beat the eggs thoroughly with the white sugar, brown sugar, corn syrup, vanilla, salt and butter.
- Add pecans.
- Pour mixture into the 9-inch unbaked pastry shell.
- Place pie on a cookie sheet and bake for 50-60 minutes or until a knife inserted near the center comes out clean. Cool completely.
- For storage, wrap the pie with plastic wrap and place in the refrigerator for up to four days.

**Q** I heard on the news about a study that says your gut microbiome determines whether or not it's easy for you to lose weight. How did they figure that out? Can I change my gut microbiome to help me lose weight?

**A** You're referring to the results of a study that appeared late last summer in a journal published by the American Society for Microbiology. The gist is just as you stated in your letter—the composition of someone's gut microbiome appears to play a role in how readily they lose weight. This study, conducted by an independent research institute in Seattle, is the most recent offering in a line of inquiry that dates back decades.

Starting in the 1980s, studies began to hint at a link between obesity and the composition of microbes living in the gut. The research began in mice, then expanded to explore the issue in humans. The completion of the Human Genome Project in 2003, which decoded the

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EVE GLAZIER



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human genetic blueprint, was a tipping point. It gave researchers tools to study the workings of the human body, as well as the trillions of microbes it plays host to, at the molecular level.

In this recent study, researchers focused on the weight loss of individuals enrolled in a commercial wellness program. The researchers selected 48 individuals who, over the course of six to 12 months, were able to lose 1% of their total body weight per month. They also looked at 57 people who didn't lose weight and who maintained their BMI

(body mass index) while taking part in the program. Using genetic and metabolic information gathered from the participants' stool and blood the researchers found connections between gut microbiome composition and weight loss.

Specifically, certain bacteria in the guts of the people who did not lose weight were more efficient at dismantling and absorbing carbohydrates. The gut microbes of the weight loss group, meanwhile, had increased numbers of genes that speed up the growth and replication of certain beneficial bacteria.

As for how to change your gut to promote weight loss, the science isn't there yet. A variety of factors come into play regarding weight, and the gut isn't the only variable.

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## KOLASA

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flakes per day to make my meals exciting.

Capsaicinoids are the active components of hot peppers responsible for the heat, and carotenoids are the pigment that produce the red color in pepper.

Both are considered a phytonutrient, which may help prevent disease. Depending on the type and brand of red pepper flakes, a serving (1 tablespoon or 5 grams) has about 17 calories, 3% Daily Value (DV) of potassium, 44% DV of vitamin

A, and 7% DV of vitamin C based on a 2,000-calorie diet.

Foods providing 20% or more of the DV are considered high sources of a nutrient, so even if you consume 1/2 tablespoon of red pepper flakes per day, this is contributing a significant amount of vitamin A in your diet.

You can find red pepper flakes at any grocery store, and they are relatively cheap, costing around \$1.63 per ounce. You can buy it in small quantities, such as a 1.5-ounce container, or you can purchase in larger quantities online like I do, and go

with a 13-ounce container. If you store the flakes in air-tight containers, they will keep at room temperature for several years.

With red pepper flakes being an excellent source of so many micronutrients, which are essential for survival, it's no wonder most of the world can't get enough spice.

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