

## Cicada Recipes: Bugs Are Low-Carb, Gluten-Free Food



Photograph by Victor Fraile, Corbis

Skewered scorpions, sea horses, grasshoppers, and cicadas (center) for sale in Beijing in 2009.

Anyone hoping to spice up their gluten-free diet need look only at the billions of beady-eyed, shrimp-size **cicadas** currently emerging from the ground in the eastern United States.

"They definitely would be gluten free ... they do not feed on wheat," said **Gene Kritsky**, a biologist and cicada expert at the College of Mount St. Joseph in Cincinnati, Ohio. The **bugs** are also high in protein, low in fat, and low in carbohydrates, he added. (Related: "**Cicadas as Food: Summer's Low-Fat Snack.**")

Members of **Brood II**, one of the largest groups of periodical cicadas, have been crawling out of the ground and carpeting trees from North Carolina to Connecticut since early May. By July, they will be gone—not to be heard from again for 17 years.

Cicadas spend most of their lives underground sucking sap from tree roots. The

plant-based diet gives them a green, asparagus-like flavor, especially when eaten raw or boiled, according to Kristky, who prefers his Brood II bugs blanched and tossed into a leafy green salad like chunks of chicken.

Gross? Not really, said Jenna Jadin, an entomologist who wrote the online cookbook *Cicada-Licious: Cooking and Enjoying Periodical Cicada* in 2004 while a graduate student at the University of Maryland in College Park.

She notes in her book that crawfish, lobster, crab, and shrimp are part of the same biological phylum—arthropods—as insects. "So popping a big juicy beetle, cricket, or cicada into your mouth is only a step away," Jadin writes. (Related: "[U.N. Urges Eating Insects; 8 Popular Bugs to Try.](#)")

The entomologist is now a science and technology policy fellow at the [American Association for the Advancement of Science](#) in Washington, D.C. She's been too busy to add recipes to her cookbook, but when asked if she had new ideas for 2013 Brood II emergence, she suggested a cicada-inspired cocktail.

"Right now, craft cocktails are a big deal, so a cocktail with a candied cicada in it would be a good update," she said. The next day, she had the recipe in hand:

### Red Eyes

2 shots vodka

½ shot Campari

½ shot extra-dry vermouth

1 shot fresh orange juice

Shake all ingredients together with ice in a shaker and strain into a chilled glass. Garnish with two candied cicadas\* on a stick, if desired.

More of Jadin's ideas include Martha Stewart-inspired Maple Cicada Cupcakes—roast the bugs for 10 to 20 minutes, then stir them into a cupcake batter with a wooden spoon—and Cicada Bahn Mi, a Vietnamese-style sandwich with cicadas first blanched, then sautéed until brown.

### Healthy Eating?

Jadin's cookbook begins with a disclaimer from the University of Maryland asking would-be cicada eaters to first consult a doctor because, like with all foods, certain individuals may have an allergic reaction.

More recent research indicates that mercury from sources such as coal-fired power plants accumulates in the bodies of periodical cicadas, which spend 13 or 17 years underground. "Now, whether that is a concern or not, I would say no," Jadin said.

People already eat fish, which are known to have mercury in their bodies, she noted. [Federal guidelines recommend limiting fish intake](#), especially for pregnant women. The same would probably hold true for cicadas, though there are no official guidelines.

"I don't think the average person who wants to go out and enjoy the cicada emergence by having a meal of cicadas or two [has] anything to worry about," she said.

Her only true concern is the cicadas that emerge in areas heavily treated with pesticides and herbicides, as the insects could have absorbed the chemicals in their bodies.

"Given that it's likely people won't be feasting on cicadas, just eating a few of them, even if they have [absorbed] chemicals, it's no worse than eating fish from the Great Lakes," Jadin said. "If [people] survived that, they'll probably survive eating a plateful of cicada."

And no, there is no bona fide business out there marketing organic cicadas, she added.

The only consequence of cicada feasting that Kritsky is aware of is overindulgence, especially on the part of the family dog or favorite backyard squirrel. The animals may be enticed to gobble cicadas so quickly that the bugs could block the animals' throats.

"Just imagine how you would react if inundated with thousands of flying Hershey's Kisses," Kritsky said. "You might go nuts. I'd go nuts. That's what happens to dogs or squirrels."

Eaten in moderation, most experts agree that cicadas—like most insects—are a good source of protein: about the same amount per pound as red meat. However, official studies on cicada nutrition are lacking, noted Jadin.

## Cicada Preparation

So, are you ready to try a cicada? Aspiring gourmands must first collect the raw ingredients. The insects are best eaten just after the nymphs break open their skin and before their exoskeleton turns black and hard, cicada aficionados say.

These newly hatched cicadas are called teneral. Jadin said they are easiest to collect in the early morning hours, just after the insects emerge from the ground but before they crawl up a tree, where they are harder to reach.

If teneral are unavailable, the next best menu item is adult females. Their bellies are fat and full of nutritious eggs. (Also see "[For Most People, Eating Bugs Is Only Natural.](#)")

Adult males, however, offer little to eat. More crunch than munch, their abdomens are hollow. (This enables the flirtatious tunes they strum on body structures known as tymbals to resonate.) With raw cicadas in hand, preparation is a matter of chef's choice.

Kritsky said, "Most people like them deep fried and dipped in a sauce like a hot mustard or cocktail sauce." Other people boil or blanch them.

Jadin said cicadas take on a "nutty" flavor when roasted. She notes that many cicada recipes call for a lot of spices and sauce, which usually winds up being the dominant flavor.

Now on to the wine: red or white? Jadin, who might be found with a cicada-infused cocktail in hand before the main feast, said neither. "I think anything pairs well with a high-alcoholic Belgian beer, but that's just my opinion."

### \*Candied Cicadas

1 pound cicadas

1 cup white sugar

2 tsp ground cinnamon

¼ tsp salt

3 tbsp milk

1 tsp vanilla extract

Preheat oven to 350°F (177°C). Spread cicadas in a single layer over a baking sheet. Roast for approximately 15-20 minutes, or until the cicadas start to turn brown and are thoroughly dried out.

Stir together sugar, cinnamon, salt, and milk in a medium saucepan. Cook over medium-high heat for eight minutes, or until the mixture reaches the soft ball stage at 236°F (113°C). Remove from heat, and stir in vanilla immediately.

Add cicadas to sugar syrup, and stir to coat well. Spoon onto waxed paper, and immediately separate cicadas with a fork. Cool and store in airtight containers.