

Family & Consumer Sciences Newsletter



National Honey Month

September is celebrated as National Honey Month in the United States, a time dedicated to recognizing the significance of honey and the crucial role that bees play in our ecosystem. This month provides an excellent opportunity to appreciate not only the sweet taste of honey but also its possible health benefits and culinary versatility.

Honey has been used for thousands of years, both as a natural sweetener and for its medicinal properties. It's rich in antioxidants, has antibacterial and anti-inflammatory properties, and can soothe sore throats and digestive issues. The varied flavors of honey, depending on the flowers from which the bees collect nectar, add unique tastes to dishes and beverages.

This month we are once again Cooking With Rancherito in honor of National Hispanic Heritage Month! Check the "Community Events" section for more details. If you want to stay updated on the Family & Consumer Sciences program in the upcoming months, please send your email or mailing address to cpjohns5@ncsu.edu to join our mailing list.

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All About Honey

How is honey made? Is it nutritious? Can it be substituted for sugar? Read further for the answers to these questions and many more details about one of nature's sweetest treasures.



Adair Hoover, ©2017 HGIC, Clemson Extension

Honey Comb

Adair Hoover, ©2017 HGIC, Clemson Extension

Floral Nectar becomes Honey

- Plants pollinated by animals produce nectar from glands called floral nectaries.
- The amount of nectar produced by a flower depends on the type of flower, size & age of the flower, weather, time of day, amount of rainfall, and how often the flower is visited.
- Honey bees store nectar (simple sugars) as a carbohydrate source in beehives. They are able to convert unripe nectar into unripe honey by adding enzymes and reducing the water content.
- The rate at which water evaporates from unripe honey depends on the type of nectar, temperature, humidity, and the amount of fanning done by honey bees with their wings to draw out moisture.
- Honey is ripe when capped with a thin layer of wax by honey bees at about 18.6% moisture (approximately $\frac{1}{3}$ water).
- Beekeepers rob beehives of ripe honey and extract it from the honeycomb for consumption.
- Honey products include cut comb, bottled raw honey, creamed honey, and mead (honey wine). Honey is also used in soaps, ointments, exfoliators, lotions, lip balms, and other numerous products.

Honey Nutrition & Health

- Honey consists primarily of glucose and fructose (simple sugars that both are carbohydrates) and 17-18% water.
- Unlike some sweeteners, honey has trace vitamins and minerals including calcium, copper, iron, magnesium, manganese, niacin, pantothenic acid, phosphorus, potassium, riboflavin, and zinc.
- Flavonoids and phenolic acids found in honey act as antioxidants. Antioxidants scavenge and eliminate free radicals. The Journal of American Dietetic Association reports that honey provides more antioxidants than white sugar, corn syrup, or agave. Unfiltered raw honey is particularly rich in antioxidants as well as enzymes that aid digestion.
- Darker honeys tend to have higher quantities of antioxidants.
- Honey makes an effective antimicrobial agent for treating sore throats and other bacterial infections.

- Bee pollen is believed to reduce the symptoms of pollen-related allergies through inoculation.

Why process honey and does it create a final product that is less nutritious?

- While there is no official U.S. federal definition of “raw” honey, it generally refers to honey that has not been heated or filtered. Often claims are made that raw honey is more nutritious or “healthier”. This is primarily because raw honey may contain small amounts of pollen grains that are often removed during processing or filtering.
- Honey is produced by honey bees from the nectar of plants, not pollen. Pollen occurs only incidentally in honey. The amount of pollen in honey is miniscule and insufficient enough to impact the nutrient value of honey.
- A 2012 study by the National Honey Board analyzed vitamins, minerals, and antioxidant levels in raw and processed honey. The study showed that processing significantly reduced the pollen content of the honey, but did not affect the nutrient content or antioxidant activity. This led researchers to conclude that the micronutrient profile of honey is not associated with its pollen content and is not affected by commercial processing. The 2012 study and abstract with statistical analysis were presented at the Federation of American Societies for Experimental Biology (FASEB) Conference.

Note The National Honey Board is not an educational research institute.

Food Safety Considerations

- The primary food safety issue related to honey is infant botulism. Because infants have an immature geostatistical tract, the spores of the *Clostridium* bacteria (the causal pathogen of botulism) are provided the amount of time needed and the environment to produce toxins. Babies under the age of 1 should not eat honey.
- Honey should be stored in a clean airtight container. Honey is hygroscopic, which means it draws in moisture. Addition of

moisture to honey can create favorable conditions for mold and yeast growth.

- Honey may crystallize or granulate as it gets older, is refrigerated, or is frozen. This is a natural process and does not harm the honey in any way. To convert crystallized honey to a liquid form, place the opened honey jar in a heat-safe container of approximately 1-2 inches of hot (not boiling) water. Crystals will begin to disappear. Be careful not to overheat honey. Excessive heat can cause honey to change color and flavor. Honey in liquid form makes filling containers easier.

Using Honey as a Sugar Substitute

- Honey is denser than sugar. One teaspoon of honey has 69 calories and one teaspoon of processed white sugar has 48 calories.
- Begin substitutions by replacing the amount of sugar called for in the recipe with half the amount of honey.

Example. If the recipe calls for 1 cup of sugar, substitute with $\frac{1}{2}$ cup of honey.

- When making your own substitutions:
 - Cakes – Replace the sugar in a cake recipe with $\frac{1}{2}$ the honey.
 - Cookies – Substitution quantities depend on the type of cookie.
 - Brownies – Replace the sugar with $\frac{1}{2}$ the honey.
 - Fruit bars – Replace the sugar with $\frac{2}{3}$ the honey.
 - Ginger snaps – Replace the sugar with $\frac{1}{3}$ the honey.
- Honey can be substituted in equal measure for other liquid sweeteners such as sorghum, molasses, or maple syrup.



Example of measurements when substituting sugar with honey.

LayLa Burgess, ©2017 HGIC, Clemson Extension

Honey Garlic Chicken

Juicy and delicious honey garlic chicken bites served with broccoli and quinoa. Perfect for meal prepping!



Recipe and photo from [healthyfitnessmeals.com](https://www.healthyfitnessmeals.com)

Ingredients

- 2 tablespoons avocado or groundnut oil, divided
- 4 chicken breasts, diced into 1-inch pieces
- 1 large egg, beaten
- 2 tablespoons cornstarch
- 1 1/4 teaspoon kosher salt, divided
- 1 head broccoli, cut into small florets
- 2 cups cooked quinoa

Honey Garlic Sauce:

- 2 tablespoons honey
- 3 tablespoons sriracha sauce
- 2 garlic cloves, minced
- 1 tablespoon rice vinegar
- 1 teaspoon sesame oil

Directions

1. Prepare 2 bowls, one with beaten egg, and the second with cornstarch mixed with a pinch of salt and pepper.
2. Dip the chicken into the beaten egg. Place all the pieces into the cornstarch and toss to lightly and evenly coat.
3. Heat one tablespoon of oil in a non-stick skillet over medium heat. Add the chicken pieces in a single layer without overlapping.
4. Cook until golden brown on all sides, about 8-10 minutes.
5. In a medium bowl whisk all the sauce ingredients. Pour sauce over the chicken and toss to coat then set aside.
6. Quickly wipe the pan with a paper towel, and add the remaining one tablespoon of oil.
7. Preheat the skillet again, and stir fry the broccoli until they start to brown. About 2-3 minutes. Season with a pinch of salt and pepper and set aside.
8. Add about 1/2 cup of cooked quinoa to each meal prep bowl. Divide the broccoli and chicken among your bowls and arrange over the quinoa.
9. Garnish with green onions, sesame seeds, and lime wedges.

Community Events



Join us for Cooking With Rancherito!

Come out to Rancherito Taqueria Restaurant and learn how to make tortillas, sopes, and huaraches! This workshop is in collaboration with Rancherito Taqueria and Yadkin County Cooperative Extension.

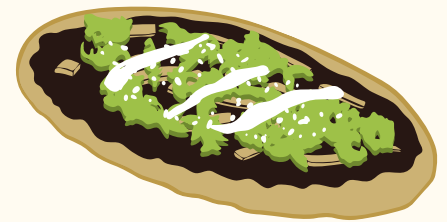
Rancherito Taqueria Restaurant
2310 Ray T Moore Rd, Yadkinville, NC 27055

September 29th 5:30PM-7:30PM

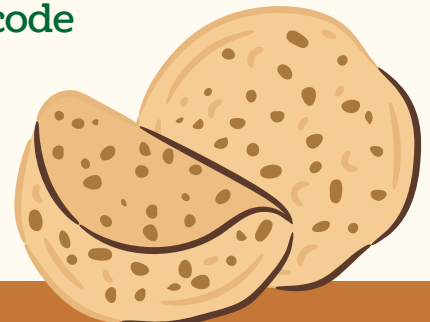
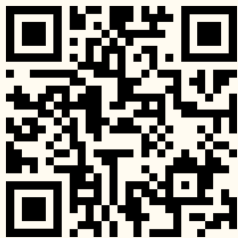


Cost: \$15

Register by
September 22nd



Contact Chelsea Johnson to register at Chelsea_Johnson@ncsu.edu or 336-849-7908 or scan the QR code



2025 Friday After Five Concert Series

EAST MAIN STREET, YADKINVILLE

DANCE PARTY

WITH

Souljam



Be sure to grab the lawn chairs, the sunscreen, and the dancing shoes! Things kick off at 6:00 p.m. on Main Street in Yadkinville with the stage near Collide Church/Public Library.

Event Info: Live music from 6pm-9pm with Souljam. Friday September 12th



Library Book Sale

Set up out front of the library on our sidewalks

Saturday Sept 20
9:00am - 4:00pm

Fundraising for summer 2026 programs



collaborative
summer library program

The Dinosaurs are Coming!



Public Events Calendar

Some events require advance registration and payment. Please call 336-849-7877 or email Chelsea_Johnson@ncsu.edu for inquiries.

SEPTEMBER 2025

Su	Mo	Tu	We	Th	Fr	Sa
	1 Labor Day	2	3	4	5	6
7	8	9	10	11	12	13
14	15 Salsa Making - Boonville Library 11A-12P	16 Extension at Home: Cleaning Your Home: The Green Way! 10A-11A	17	18	19	20 Yadkin Harvest Festival 9A-4P
21	22	23	24	25	26	27
28	29 Cooking with Rancherito 5:30p-7:30p	30				



Extension At Home

Helping You Improve Your Life!



Every Third Tuesday of The Month 10:00 am ET



Find us at go.ncsu.edu/extensionathome

July 15 - Freezer Meals Ready When You Are

August 19 - Inside Food Recalls

September 16 - Clean Your Home: The Green Way!

October 21 - Holiday Budgeting Magic

November 18 - Caregiving During the Holidays

December 16 - Be Winter Ready



NC Cooperative Extension is an equal opportunity provider.

Yadkin County Cooperative Extension

**2051 Agricultural Way, Suite 201
Yadkinville, NC 27055**

336-849-7908

Monday - Friday ~ 8AM - 5PM

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