



Hey y'all!

This weekend we went to the state fair, and walked around looking at all the prize-winning baked goods - exciting! We wanted to enter, but now that we are "professionals," we're not allowed to enter baked goods!

This week's zine has more bread science ingredient profiles, and the first of our interviews with bakery members! Anna Lena talked with Jagmeet about bread, the bakery, and more!



Hey y'all!

This weekend we went to the state fair, and walked around looking at all the prize-winning baked goods - exciting! We wanted to enter, but now that we are "professionals," we're not allowed to enter baked goods!

This week's zine has more bread science ingredient profiles, and the first of our interviews with bakery members! Anna Lena talked with Jagmeet about bread, the bakery, and more!

PROFILES in BREAD SCIENCE: Citric Acid

One time, Tim bought a bottle labeled "Sour Salt", which turned out to be 100% citric acid powder. Citric acid is the chemical in lemon juice or other citrus fruits that makes them taste sour, but on its own it doesn't have much of a flavor at all. Because of this we often add a few teaspoons to muffin batter as a preservative. Making muffins more acidic helps prevent bacteria and molds from growing in muffins as they sit in your kitchen, and citric acid is particularly good as a preservative when compared with other acids. One week, in an effort to be more 'natural', we tried adding lemon juice instead, but it made the muffins taste, of course, like lemon!

Citric acid was first isolated as a separate chemical from citrus juice by the Islamic chemist (or alchemist) Abu Musa Jabir ibn Hayyan, in the 700s. Jabir ibn Hayyan spent most of his life trying to isolate various acidic compounds so that they could be used to purify or extract



gold, and he's often known as the father of chemistry. Italian citrus growers in the 1800s started the first large-scale commercial production of citric acid.

Today, just like xanthan gum, it's commercially grown by big ole vats of bacteria. This time, it's *Aspergillus niger* mold which grows in solutions of molasses, hydrolized corn starch, or other sugar. The mold produces citric acid, but in order to extract it from the growing solution, industrial manufacturers first add lime to produce calcium citrate, and then treat that with sulfuric acid to leave citric acid. Why not just make citric acid from lemon juice? I suppose it's cheaper to grow it in big vats than to make it from naturally occurring sources. In the United States, the process just described came about during World War I, when the war kept Italian citric acid from crossing over the Atlantic into the country.

What We Baked This Week:

Half-wheat sourdough (840g/loaf)

Water (36%), OG ww flour (30%), OG white flour (30%), veg oil (3%), NC Honey (1%), Salt

PROFILES in BREAD SCIENCE: Citric Acid

One time, Tim bought a bottle labeled "Sour Salt", which turned out to be 100% citric acid powder. Citric acid is the chemical in lemon juice or other citrus fruits that makes them taste sour, but on its own it doesn't have much of a flavor at all. Because of this we often add a few teaspoons to muffin batter as a preservative. Making muffins more acidic helps prevent bacteria and molds from growing in muffins as they sit in your kitchen, and citric acid is particularly good as a preservative when compared with other acids. One week, in an effort to be more 'natural', we tried adding lemon juice instead, but it made the muffins taste, of course, like lemon!

Citric acid was first isolated as a separate chemical from citrus juice by the Islamic chemist (or alchemist) Abu Musa Jabir ibn Hayyan, in the 700s. Jabir ibn Hayyan spent most of his life trying to isolate various acidic compounds so that they could be used to purify or extract



gold, and he's often known as the father of chemistry. Italian citrus growers in the 1800s started the first large-scale commercial production of citric acid.

Today, just like xanthan gum, it's commercially grown by big ole vats of bacteria. This time, it's *Aspergillus niger* mold which grows in solutions of molasses, hydrolized corn starch, or other sugar. The mold produces citric acid, but in order to extract it from the growing solution, industrial manufacturers first add lime to produce calcium citrate, and then treat that with sulfuric acid to leave citric acid. Why not just make citric acid from lemon juice? I suppose it's cheaper to grow it in big vats than to make it from naturally occurring sources. In the United States, the process just described came about during World War I, when the war kept Italian citric acid from crossing over the Atlantic into the country.

What We Baked This Week:

Half-wheat sourdough (840g/loaf)

Water (36%), OG ww flour (30%), OG white flour (30%), veg oil (3%), NC Honey (1%), Salt

Seeded Whole Wheat sandwich (860g/loaf)

OG ww bread flour (49%), water (33%), pumpkin seeds (4%), canola oil (3%), NC honey (3%), sunflower seeds (3%), poppy seeds (2%), molasses, salt, yeast

Herbed Artisan Bread (793g/loaf)

OG white bread flour (41%), Water (39%), OG ww Bread Flour (17%), Olive oil (2%), Basil, Oregano, Salt, Stone House Sage

Focaccia (503g/6 pieces)

Water (42%), OG white bread flour (40%), OG ww bread flour (14%), OG olive oil (3%), salt, yeast. Topped with neighborhood rosemary & NC onions, tomatoes, & squash.

Strawberry Muffins (381g/half-dozen)

OG ww pastry flour (29%), Pecan milk (pecans & water, 28%), Waller Farm Strawberries (23%), OG Cornmeal (5%), Flax egg sub. (5%), NC honey (4%), Canola oil (2%), Baking soda, Baking powder, Cinnamon, Citric Acid, Salt.



Seeded Whole Wheat sandwich (860g/loaf)

OG ww bread flour (49%), water (33%), pumpkin seeds (4%), canola oil (3%), NC honey (3%), sunflower seeds (3%), poppy seeds (2%), molasses, salt, yeast

Herbed Artisan Bread (793g/loaf)

OG white bread flour (41%), Water (39%), OG ww Bread Flour (17%), Olive oil (2%), Basil, Oregano, Salt, Stone House Sage

Focaccia (503g/6 pieces)

Water (42%), OG white bread flour (40%), OG ww bread flour (14%), OG olive oil (3%), salt, yeast. Topped with neighborhood rosemary & NC onions, tomatoes, & squash.

Strawberry Muffins (381g/half-dozen)

OG ww pastry flour (29%), Pecan milk (pecans & water, 28%), Waller Farm Strawberries (23%), OG Cornmeal (5%), Flax egg sub. (5%), NC honey (4%), Canola oil (2%), Baking soda, Baking powder, Cinnamon, Citric Acid, Salt.



Bakery Member Profiles:

An Interview with Jagmeet Mac

Anna Lena: I feel slightly nervous, so I just wanted to say that, and maybe you could say something like, Anna Lena, you don't have to feel nervous.

Jagmeet: Anna Lena, you don't have to feel nervous. I feel nervous!

ALP: Oh, well, Jagmeet, you don't have to feel nervous!

[laughter]

ALP: So, I want to ask you some questions about bread. What's your favorite bread that bread club makes?

JM: I think they made a raisin walnut bread—it was a raisin and some kind of nut bread that I really liked. I actually have really enjoyed also the leftover bread that they made just recently.

I could smell and taste a lot of flavors in that—I enjoyed that.

ALP: Can you remember the first time you ever ate bread?

JM: My earliest bread experiences were probably roti that my parents made—flat bread—or chapati.

ALP: How would you describe it?

JM: The way it's made is it's just really basic—really finely ground flour mixed with water, and pressed or rolled out into kind of tortilla-like shapes, and cooked on the stovetop and flipped a few times. It can vary, but the way my parents make it, it's medium-thick. And they usually butter it, so it has this nice buttery flavor.

ALP: That sounds really good! I'm curious, com-

ing back to the present, about how you heard about and decided to join Bread Uprising.

JM: I don't know the first time I heard about it, but I do remember the first time I tasted some bread. It was actually some muffins. My friend Jessamine was getting bread weekly from the bakery, and we went to a rally in Raleigh—the Historic Thousands on Jones Street rally—and she brought some of her muffins on that trip, that we shared, and that was really good.

I remember several years ago, I was part of this Spanish conversation group that Tim was a part of, and he was baking all these amazing loaves of bread, as well as being really busy with graduate school, and I was really impressed by that, and it's neat to see that he and Noah are doing this now.

As far as joining, I went to the first bread assembly, and I actually wasn't getting bread at that time, and volunteered to be part of the visioning and planning group, and from there, Noah said,

ing back to the present, about how you heard about and decided to join Bread Uprising.

JM: I don't know the first time I heard about it, but I do remember the first time I tasted some bread. It was actually some muffins. My friend Jessamine was getting bread weekly from the bakery, and we went to a rally in Raleigh—the Historic Thousands on Jones Street rally—and she brought some of her muffins on that trip, that we shared, and that was really good.

I remember several years ago, I was part of this Spanish conversation group that Tim was a part of, and he was baking all these amazing loaves of bread, as well as being really busy with graduate school, and I was really impressed by that, and it's neat to see that he and Noah are doing this now.

As far as joining, I went to the first bread assembly, and I actually wasn't getting bread at that time, and volunteered to be part of the visioning and planning group, and from there, Noah said,

“You should get bread!” and signed me up.

ALP: What's your experience being on the bread team been like?

JM: I consider this group of people on the bread team and in the coop in general to be very intentional, and I have been experiencing that kind of intentionality firsthand and appreciating it. From thinking about where all of the ingredients come from to what the bakery means to be, and how it's organized, I appreciate the energy that this group has brought to the direction that Bread Uprising is taking.

Another piece of that is, it's really neat getting to know people through Bread Uprising, some of whom I might know more casually, and some people I didn't know at all.

Bread Uprising Bakery
816 Fancy St., Durham, NC 27701
breaduprising@resist.ca
breaduprising.wordpress.com

Bakery Member Profiles:

An Interview with Jagmeet Mac

Anna Lena: I feel slightly nervous, so I just wanted to say that, and maybe you could say something like, Anna Lena, you don't have to feel nervous.

Jagmeet: Anna Lena, you don't have to feel nervous. I feel nervous!

ALP: Oh, well, Jagmeet, you don't have to feel nervous!

[laughter]

ALP: So, I want to ask you some questions about bread. What's your favorite bread that bread club makes?

JM: I think they made a raisin walnut bread—it was a raisin and some kind of nut bread that I really liked. I actually have really enjoyed also the leftover bread that they made just recently.

I could smell and taste a lot of flavors in that—I enjoyed that.

ALP: Can you remember the first time you ever ate bread?

JM: My earliest bread experiences were probably roti that my parents made—flat bread—or chapati.

ALP: How would you describe it?

JM: The way it's made is it's just really basic—really finely ground flour mixed with water, and pressed or rolled out into kind of tortilla-like shapes, and cooked on the stovetop and flipped a few times. It can vary, but the way my parents make it, it's medium-thick. And they usually butter it, so it has this nice buttery flavor.

ALP: That sounds really good! I'm curious, com-

ing back to the present, about how you heard about and decided to join Bread Uprising.

JM: I don't know the first time I heard about it, but I do remember the first time I tasted some bread. It was actually some muffins. My friend Jessamine was getting bread weekly from the bakery, and we went to a rally in Raleigh—the Historic Thousands on Jones Street rally—and she brought some of her muffins on that trip, that we shared, and that was really good.

I remember several years ago, I was part of this Spanish conversation group that Tim was a part of, and he was baking all these amazing loaves of bread, as well as being really busy with graduate school, and I was really impressed by that, and it's neat to see that he and Noah are doing this now.

As far as joining, I went to the first bread assembly, and I actually wasn't getting bread at that time, and volunteered to be part of the visioning and planning group, and from there, Noah said,

“You should get bread!” and signed me up.

ALP: What's your experience being on the bread team been like?

JM: I consider this group of people on the bread team and in the coop in general to be very intentional, and I have been experiencing that kind of intentionality firsthand and appreciating it. From thinking about where all of the ingredients come from to what the bakery means to be, and how it's organized, I appreciate the energy that this group has brought to the direction that Bread Uprising is taking.

Another piece of that is, it's really neat getting to know people through Bread Uprising, some of whom I might know more casually, and some people I didn't know at all.

Bread Uprising Bakery
816 Fancy St., Durham, NC 27701
breaduprising@resist.ca
breaduprising.wordpress.com