



Welcome to the third issue of the HighAltitudeBaker.com newsletter! I hope you enjoyed a wonderful Fourth of July celebration, complete with parades, fireworks, and a true patriotic spirit. Now that the festivities have concluded, let's keep the baking excitement going with some valuable tips and ideas.

Speaking of baking, let's dive into a couple of tips. Firstly, when working with <u>veast</u>, it's crucial to ensure its freshness by checking the expiration date. Furthermore, in pursuit of precision, weighing ingredients whenever possible is highly recommended. By using a kitchen scale, you can achieve accurate measurements and consistent results in your baking. This approach eliminates any potential discrepancies caused by the density or packing of ingredients, delivering more reliable outcomes.

So, get ready to embark on your baking adventures with these helpful tips. Let's continue to enjoy the joy and art of baking together!

Let's get started! & Thank you in Advance for Enjoying Issue 3 🛛 🍞 Vic"Tori" a at 8750



Covered This Month The COLOR of Food and Improving High Altitude Flavors with COLOR Tips on YEAST and the almighty RISE at Altitude Weighing Vs. Measuring - Even more important at ALTITUDE WHY?						
Are you ready	TO ELEVATE YOUR BAKING GAME?	Snail Mail P.O. Box 3024 Telluride, CO 81435 info@HighAltitudeBaker.com	Leave a Menage or Adv a Canton HERE			
<u>Ask me an</u> answer fro were submitt	<u>ything about Baking and I'll give you the</u> om my High-ALTITUDE Kitchen at 8750' Questions you see on <u>HighAltitudeBaker.com</u> red by High-Altitude Bakers Like YOU	Honesty Policy Amazon Associate As an Amazon Associate I carn from qualifying purchases. I only share <b>Ereducts</b> that I use in my Very OWN High Altitude Kitchen.	Entry your email is I can uply*			

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It's really important to keep your oven at the right temperature when you're cooking or baking. But just relying on the oven temperature might not tell you if your food is fully cooked inside. That's why it's a good idea to use an internal thermometer to check the temperature of your cakes, bread, or meats. I recommend getting a reliable thermometer so you can keep an eye on your cooking progress. You can find a good one here: <a href="https://amzn.to/3pVAKRp">https://amzn.to/3pVAKRp</a>

Don't put off getting a thermometer because if you don't check the temperature properly, your food could end up undercooked or overcooked. So make sure you take the necessary steps to cook your next dish perfectly. And if you use the link I provided to buy the thermometer, I might get a commission as an Amazon affiliate.





# COLOR IN THE HIGH ALTITUDE KITCHEN ...

In high altitude kitchens, where food can sometimes lack flavor due to the unique challenges of cooking at higher elevations, the visual appeal of dishes becomes even more important. The emotions associated with different colors of food play a significant role in enhancing the overall dining experience, particularly in high altitude settings. By understanding the psychological and emotional effects of color on human perception, high altitude kitchens can utilize this knowledge to make their dishes visually enticing and elevate the dining experience for their customers.





For example, the **vibrant red color of strawberries**, tomatoes, and red peppers can stimulate feelings of energy, passion, and stimulation. Incorporating these visually striking red ingredients into high altitude recipes can help create a sense of excitement and enhance the perception of flavor intensity, compensating for any potential blandness in taste.

Similarly, the **warm and vibrant orange** color of carrots, oranges, and apricots can evoke a sense of warmth, enthusiasm, and vitality. By incorporating these orange-colored ingredients into high altitude dishes, the kitchen can create an uplifting and energetic dining experience for customers, enhancing their enjoyment despite any potential flavor challenges.

The **bright yellow color of bananas**, lemons, and yellow bell peppers is associated with happiness, optimism, and cheerfulness. High altitude kitchens can take advantage of these emotionally uplifting associations by incorporating visually appealing yellow ingredients, bringing a sense of joy and positivity to the dining experience and offsetting any potential taste limitations.

Furthermore, the **fresh green color of ingredients like spinach**, kiwi, and green beans can evoke feelings of freshness, health, and nature. By incorporating these vibrant green elements into high altitude recipes, kitchens can create a visually appealing and nutritious dining experience, promoting a sense of well-being and vitality.

By carefully selecting ingredients based on their color associations and incorporating them into high altitude recipes, kitchens can enhance the visual appeal of their dishes. This approach not only compensates for any potential flavor challenges but also creates an immersive and satisfying dining experience by tapping into the emotional and psychological effects of color.

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Color	Associated Emotions	Food Examples				
Red	Energy, passion, stimulation	Strawberries, tomatoes, red peppers				
Orange	Warmth, enthusiasm, vitality	Carrots, oranges, apricots				
Yellow	Happiness, optimism, cheerfulness	Bananas, lemons, yellow bell peppers				
Green	Freshness, health, nature	Spinach, kiwi, green beans				
Blue	Calmness, tranquility, stability	Blueberries, blue corn, blue potatoes				
Purple	Creativity, luxury, mystery	Grapes, eggplant, purple cabbage				
Pink	Delicacy, romance, sweetness	Strawberries, watermelon, pink grapefruit				
Brown	Comfort, earthiness, warmth	Chocolate, coffee, almonds				
White	Purity, simplicity, cleanliness	Milk, cauliflower, white mushrooms				
Black	Elegance, mystery, sophistication	Blackberries, black beans, black rice				







### Quick YEAST TIPS for your High Altitude Kitchen...

The science behind yeast and its behavior in high altitude baking involves understanding how changes in atmospheric pressure and temperature affect yeast activity. Yeast is a microorganism that plays a crucial role in bread and dough recipes by converting sugar into carbon dioxide gas, causing the dough to rise.

At high altitudes, where atmospheric pressure is lower, the reduced air pressure can accelerate yeast activity. The higher elevation can cause dough to rise more quickly, which can lead to challenges in achieving proper dough texture and structure. Additionally, the drier climate at higher altitudes can affect the hydration and activation of yeast.

#### To make adjustments for high altitude baking with yeast...

- 1. **Decrease yeast:** Due to the accelerated yeast activity at higher elevations, it is recommended to decrease the amount of yeast in the recipe. This helps to control the fermentation process and prevent the dough from over-rising. Reducing the yeast by about 25% is a good starting point, but adjustments may vary depending on the specific recipe and altitude.
- 2. **Decrease sugar:** Yeast requires sugar for fermentation, but at high altitudes, the accelerated yeast activity can cause dough to rise more quickly. To balance the fermentation process, it is advisable to slightly decrease the amount of sugar in the recipe. This helps control the yeast activity and prevents the dough from over-rising and collapsing.
- 3. Adjust liquid and flour: The drier climate at high altitudes can affect the hydration of the dough. It may be necessary to increase the liquid content slightly to maintain the desired consistency. Additionally, you may need to adjust the amount of flour in the recipe to achieve the proper dough texture. This may require adding a bit more flour to compensate for the drier conditions.
- 4. **Monitor dough rise and fermentation**: Due to the accelerated yeast activity, it is essential to closely monitor the dough during the rising and fermentation stages. The proofing time may need to be shortened compared to recipes at lower elevations. The dough should be given enough time to rise adequately without overproofing.
- 5. **Experiment and adjust:** High altitude baking with yeast often involves some experimentation to find the ideal adjustments for your specific altitude and recipe. Each location has its unique variables, so it may require a few attempts to achieve the desired results. Take notes and make adjustments accordingly to refine your high altitude yeast baking techniques.

Understanding the science of yeast and its interaction with altitude helps in making informed adjustments to ensure successful bread and dough recipes at higher elevations. By considering factors such as yeast quantity, sugar content, hydration, and dough





monitoring, you can achieve well-risen, flavorful baked goods in high altitude environments.

### DON'T KILL THE YEAST!

To ensure the survival of yeast during baking, it is important to consider the following factors, including specific temperature ranges:

Temperature: Yeast is sensitive to temperature extremes. Avoid subjecting the dough to excessively high temperatures, as this can kill the yeast. On the other hand, extremely low temperatures can significantly slow down or halt yeast activity. It is crucial to maintain a moderate temperature range during the baking process.

Liquid Temperature: When activating yeast, use lukewarm liquid within the temperature range of <u>105°F to 115°F</u> (40°C to 46°C). If the liquid is too hot, above 115°F (46°C), it can be fatal to the yeast. Conversely, using cold liquids can slow down yeast activation. Aim for a comfortably warm temperature to maximize yeast viability. https://amzn.to/301RezM

Salt: It is important to use salt in appropriate amounts, as excessive salt can negatively affect yeast. Follow the recipe's instructions and measurements accurately. High salt concentrations can hinder yeast growth and activity, potentially leading to yeast cell death.

By paying close attention to temperature ranges and salt measurements, you can create an optimal environment for yeast to thrive and achieve successful fermentation during baking. Following trusted recipes will also provide guidance and help you obtain the desired results.

### THE RISE - FERMENTATION AT WORK

Creating a warm space for dough to rise is crucial for proper fermentation. are some tips to create an ideal warm environment for dough to rise:

- 1. <u>Use the oven</u>: Preheat your oven to the lowest temperature setting for a few minutes, then turn it off. Place your covered dough inside the oven and close the door. The residual heat from preheating creates a warm and draft-free environment for the dough to rise.
- 2. <u>Utilize a proofing box</u>. If you frequently bake bread, investing in a proofing box can be beneficial. Proofing boxes are designed to provide a consistent and controlled warm environment for dough to rise. They usually have adjustable temperature settings and humidity control, ensuring optimal conditions for fermentation.
- З. Warm microwave method: Place a cup of water in a microwave-safe container and microwave it for a minute or two until the water is warm. Remove the cup and place your covered dough inside the microwave. The warm, enclosed space helps to create an ideal environment for dough rising.
- 4. Utilize a warming drawer. If you have a warming drawer in your kitchen, it can be an excellent option for creating a warm space for dough to rise. Set the temperature to the lowest setting and place your covered dough inside. Just make sure the drawer is not too hot to avoid overheating the dough.
- 5. Use a heating pad: Place a heating pad on a low setting and cover it with a clean towel or cloth. Place your covered dough on top of the towel, ensuring that it's not in direct contact with the heating pad. The gentle warmth from the heating pad helps create an optimal environment for fermentation.
- 6. Warm water bath: Fill a large container or sink with warm water (around 100°F/38°C). https://amzn.to/301RezM Place your covered dough in a smaller container or bowl and submerge it in the warm water bath. The surrounding warmth from the water promotes a cozy environment for the dough to rise.

Remember, the goal is to create a warm and draft-free environment for the dough to rise, ideally around 75 F to 85 F (24 C to 29 C). It's important to monitor the dough during the rising process and adjust the duration based on visual cues, such as doubling in size. Avoid extreme temperatures, as excessive heat can kill the yeast and hinder fermentation. Additionally, always cover the dough with a damp cloth or plastic wrap to prevent it from drying out during the rising process. By employing these methods, you can ensure that your dough rises properly and achieves the desired texture and flavor in your baked goods.

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# Basic High Altitude Sourdough Starter with yeast Boost.... Easy Peasy....

Adding commercial <u>yeast</u> to a sourdough starter can provide a boost to the fermentation process, resulting in a more reliable rise, especially for beginner bakers or in environments with limited wild <u>yeast</u> activity. The <u>yeast</u> contributes to the leavening of the dough, leading to a more pronounced rise during baking. This acceleration of fermentation occurs as the <u>yeast</u> consumes the sugars in the flour, producing carbon dioxide gas that causes the dough to rise faster.

The addition of <u>yeast</u> to a sourdough starter offers several benefits. Firstly, it promotes faster fermentation, allowing the dough to rise more quickly. This can be particularly useful for beginner bakers seeking consistent results and a desirable texture in their final baked products. Secondly, <u>yeast</u> provides a more predictable rise, ensuring a consistent outcome. Additionally, while the commercial <u>yeast</u> aids in the rise, the sourdough starter still relies on the wild <u>yeast</u> and bacteria naturally present in the environment and flour for flavor development. The addition of <u>yeast</u> can complement the flavor profile, striking a balance between reliability and the unique tangy taste associated with sourdough.

However, it's important to note that over time, the wild <u>yeast</u> in the environment and flour will become dominant in the sourdough starter, gradually replacing the added commercial <u>yeast</u>. This transition allows the starter to develop its own distinct character and flavor. As you regularly maintain and feed your sourdough starter, the wild <u>yeast</u> and bacteria will thrive, reducing or eliminating the need for commercial <u>yeast</u>.

#### Ingredients for Sourdough Yeast Starter:

- 1 cup unbleached all-purpose flour or whole wheat flour
- 1/2 cup filtered slightly warm water (chlorine-free) about 85<sup>o</sup>
- 1 teaspoon sugar
- 1/4 teaspoon instant dry <u>yeast</u> (optional)

#### Instructions for Sourdough Starter:

- 1. In a clean glass or ceramic container, thoroughly mix 1/4 cup of flour  $\oplus$  sugar with 1/4 cup of water, add 1/4 teaspoon of instant dry <u>yeast</u> at this stage. Mix well until there are no dry lumps. Cover loosely with a cloth or plastic wrap and let it sit at room temperature (around 70°F) for 24 hours.
- 2. After 24 hours, discard approximately half of the starter (about 1/2 cup) to reduce the volume. Add 1/4 cup of flour and 1/4 cup of water to the remaining starter. Mix well, cover loosely, and let it sit for another 24 hours.
- 3. Repeat the process of discarding approximately half of the starter and feeding it with 1/4 cup of flour and 1/4 cup of water every 24 hours for the next two days.
- 4. By day 5, your sourdough starter should be active and ready to use. It should possess a slightly sour aroma, a bubbly texture, and rise and fall predictably. Remember to reserve a small portion (about 1/4 cup) of the starter, discard the rest, and refresh it with equal parts flour and water (1/4 cup each) if you don't plan to bake with it immediately. Regular feeding and refreshing of your starter will help maintain its health and activity.

Ultimately, the decision to add <u>yeast</u> to a sourdough starter depends on individual preferences and circumstances. It can be a helpful tool for beginners or in challenging baking conditions, but many bakers eventually transition to relying solely on the natural wild <u>yeast</u> and bacteria in their starters to achieve the full flavor and complexity associated with traditional sourdough bread. Enjoy the process of creating and baking with your very own sourdough starter!







## WEIGHING VS. MEASUTZING - EVEN MOTZE IMPOTZTANT AT ALTITUDE ... WHY?



When cooking or baking at high altitudes, it is important to weigh ingredients accurately for several reasons:

**1.** Altitude affects atmospheric pressure: At higher altitudes, the atmospheric pressure is lower compared to sea level. This reduced pressure affects the behavior of gases, including the gases produced during cooking or baking. It also affects the boiling point of liquids. Weighing ingredients ensures that you have the correct proportions of solids, liquids, and leavening agents to achieve the desired results.

2. **Precise chemical reactions:** Baking is a science that relies on chemical reactions between ingredients. For example, when baking a cake, leavening agents like baking powder or baking soda react with acids in the batter to produce carbon dioxide gas, which causes the cake to rise. The balance of these ingredients is crucial for achieving the desired texture and volume. Weighing the ingredients precisely ensures the proper balance and the desired chemical reactions.

- 3. Moisture content: High altitude areas are often drier, which affects the moisture content of ingredients. Weighing ingredients helps you adjust the moisture levels in your recipe to compensate for the dryness, ensuring that the final product isn't too dry or too moist.
- 4. **Consistency and repeatability:** Weighing ingredients accurately allows you to achieve consistent results. Baking is a precise process, and small variations in ingredient proportions can significantly impact the outcome. By weighing ingredients, you can replicate successful recipes and make adjustments as needed to adapt to high-altitude conditions.
- 5. **Troubleshooting:** If you encounter issues with your baked goods at high altitudes, weighing ingredients can help you identify potential problems. If you've followed a recipe using volume measurements, the differences in atmospheric pressure and moisture content can affect the accuracy of those measurements. Switching to weighing ingredients provides a more reliable and consistent baseline for troubleshooting.

Overall, weighing ingredients at high altitudes helps you compensate for the environmental differences and achieve the desired results in your cooking or baking endeavors.

The scale 1 recommend is available for under \$20 https://amzn.to/3K158AZ

- Detachable bowl for measuring mixed ingredients
- Bowl can be flipped upside down and used as a protective case for storage
- Auto-zero and tare functions for accurate weighing of items in containers
- Auto-off function after 2 minutes of inactivity to save energy



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### WEIGHING VS. MEASUTZING - TINY COMPATZISON, BIG DIFFETZENCE

In our experiment, we conducted a comparison between two methods of measuring 1/2 cup of flour: one where the flour was packed tightly into the measuring cup, and another where the flour was spooned into the measuring cup. We also performed a similar comparison for 1/2 cup of cane sugar, examining both the packed and spooned methods. To provide a visual impact, we captured pictures showcasing the noticeable differences between the two methods.



Emphasizing the importance of weighing ingredients instead of relying solely on measuring is crucial in achieving consistent and accurate results in baking. While measuring cups and spoons are commonly used, they can lead to variations in the amount of ingredients due to factors like packing density and air gaps. By utilizing a kitchen scale, you can precisely measure the weight of each ingredient, ensuring that your recipes are reproducible and deliver the desired outcomes every time. So, whenever possible, remember to weigh your ingredients for a more reliable and successful baking experience.

### PLEASE NOTE THAT THE WEIGHTS PIZOVIDED ATZE APPTZOXIMATE AND MAY VATZY SLIGHTLY DEPENDING ON THE BIZAND AND DENSITY OF THE INGTZEDIENT.

				Butter (in grams)			
renose Flour (in grams)	Approximate Weight (g)	Granulated Sugar (in grar	Granulated Sugar (in grams)		Measurement		
II-Purpee		Measurement	Approximate Weight (g)	1/4 cup	Approx		
Measurement	30 grams	1/4 cup	50 grams	1/3 cup	57 an		
NICE CUID	40 s	1/3 cup	67 grams	1/2 cup	or grams		
1/4 001	60 giz	1/2 cup	100 grams	1 cup	76 grams		
1/3 CUP	120 91	1 cup	200 grams		113 grams		
1/2 COP					227 grams		
1000		Baking Powder (in grams	5)	Baking Soda (in gram	s)		
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rement	so grams	1/4 teaspoon	1 gram	1/4 teaspoon	Approximate Weight (		
Measurement	50 grams	1/0 tocopoon	0 grama	1/2 teaspoon	1.5 grams		
1 egg	100 grams	1/2 teaspoon	∠ grams	1 teaspoon	3 grams		
2 eggs	150 granis	1 teaspoon	4 grams	1 tablespoon	6 grama		
3 eggs		1 tablespoon	12 grams	. 301	arenns		

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