

Whole Wheat Focaccia

Plus: Working with Whole Wheat Flour & Gluten

1 23x33-cm focaccia (8-10 pieces)

- 8 g granulated sugar
- 10-12 g sea salt*
(沖縄のシママース – Okinawa Shimamasu)
- 10 g instant dry yeast (SAF red)
- 39 g extra-virgin olive oil
- 290 g all-purpose flour
- 100 g whole wheat flour
- 372 g lukewarm water (add gradually)



* Salt: use 10 g for a milder salt flavor, or 12 g if you want it more balanced

1. Combine the **sugar, flour, yeast, salt, oil** and **water** in a stand mixer with the paddle attachment (***See autolyze step below**). Mix until the dough forms a sticky mass that clings to the sides of the bowl, scraping the bowl down once, **about 2-3 minutes**. The dough will be very wet and more like pancake batter and not form a ball.
2. Grease a large bowl with **olive oil** and scrape the dough into it. Cover with a clean kitchen towel or plastic wrap and let rise in a warm place until almost doubled, **about 1 to 1½ hours** (*or as much as 30-60 minutes more depending on heat and humidity*).
3. Very generously coat the baking pan with olive oil.
4. Scrape the dough into it and gently nudge and press it into an even layer, oiling your fingers if the dough sticks (*it will!!*).
5. Lightly sprinkle with salt (optional).
6. Spray plastic wrap with baking spray, cover the dough, and let rise until it's 13-mm tall or about the top of the pan, **about another hour** (*or more*).
7. Preheat the oven to **220°C**.
8. Uncover the dough and bake until golden brown on top, about **20 minutes**. When you press the top of the dough it will be a bit hard on top.
9. As soon as the bread comes out, brush the top generously with **olive oil**, then lightly sprinkle with **salt** (optional).
10. Cool in the pan for **at least 10 minutes**. Use a knife to cut around the edges of the bread to remove it from the pan. Freezes well.

12 pieces/per piece (approximation)

Calories – 150 / Protein: 3.9g / Fat: 3.8g / Sat fat: 0.5 / Carbs: 25g / Sugars: 0.7g / Fiber: 1.6g / Sodium: 330mg

Per gram (based on 676 g finished weight)

Calories – 2.67kcal/g / Protein: 0.070g / Fat: 0.067g / Sat fat: 0.0089g / Carbs: 0.449g / Sugars: 0.0118g / Fiber: 0.029 / Sodium: 5.9mg

Working with whole wheat flour and gluten

To incorporate whole wheat flour while maintaining a good rise and texture, consider the following adjustments:

Substitution Amount

- **Start with 25–50% Whole Wheat Flour:** Substitute 25–50% of the bread flour (approximately 98–195 g) with whole wheat flour. Whole wheat flour absorbs more water and is heavier, so starting conservatively ensures you don't compromise the bread's structure.

Adjustments to the Recipe

1. **Increase Hydration:** Whole wheat flour absorbs more water. Add an extra 5–10% water by weight to account for this (approximately 18–36 g additional water). Add the water gradually during mixing to avoid overhydrating.
2. **Mixing and Resting:** Mix the dough a bit longer (2–3 minutes) to help develop the gluten in the whole wheat flour.
*You can also include an **autolyze step** (letting the flour and water sit together for 20–30 minutes before adding salt, yeast, and oil) to improve hydration and gluten development.*
3. **Longer Rising Time:** Whole wheat dough may take longer to rise due to the heavier bran content. Allow an extra 15–30 minutes for the first and second rises if needed.
4. **Add Vital Wheat Gluten* (Optional):** Adding 1–2 teaspoons (4–8 g) of vital wheat gluten can help improve the structure and rise, especially if you go beyond 50% whole wheat.
5. **Optional Sweetener:** A touch more sugar (an additional 2–3 g) can help balance the slightly bitter flavor of whole wheat and feed the yeast.

Notes on Texture and Flavor

- Whole wheat focaccia will have a denser crumb and nuttier flavor compared to the original version. If you want a softer texture, stick closer to 25% substitution. For a robust whole wheat flavor, you can push to 50%.

Testing Higher Substitutions

If the 50% substitution works well, experiment with going up to 75–100%, but significant adjustments (hydration, rise time, and gluten development) will be necessary to maintain the bread's integrity.

*What is vital wheat gluten?

Vital wheat gluten is a concentrated protein extracted from wheat. It's made by hydrating wheat flour to activate the gluten (the protein responsible for elasticity in dough) and then removing everything else, such as starches. The remaining gluten is then dried and ground into a powder.

How It Works

- **Boosts Gluten Strength:** Adding vital wheat gluten to a dough increases its elasticity and structure, which helps it trap more gas produced by yeast during fermentation. This is especially useful in doughs with weaker gluten, like those made with whole wheat, rye, or low-protein flours.
- **Improves Rise:** It counteracts the heavier texture of whole wheat flour by creating a more robust dough structure.
- **Enhances Chewiness:** It contributes to a slightly chewier texture, which is desirable in breads like focaccia, bagels, and artisan loaves.

How to Use It

- **Amount:** Use about 1–2 teaspoons (4–8 grams) per cup (120–140 grams) of flour in recipes where you want to improve elasticity or rise.
- **Mixing:** Simply add it to your dry ingredients before mixing the dough.

Availability

Vital wheat gluten is available online; brands like Bob's Red Mill.

Considerations

- **Allergen:** It's pure gluten, so it's unsuitable for people with gluten intolerance or celiac disease.
- **Flavor Impact:** It has a neutral flavor and won't alter the taste of your bread.

Incorporating it into your whole wheat focaccia recipe will help counterbalance the density of whole wheat flour and give you a lighter, more airy bread.

Vital wheat gluten in Japan?

Vital wheat gluten (often referred to as グルテンパウダー or 小麦グルテン in Japanese) is available in Japan, though it might not be as common as in some Western countries. Here are a few ways to find it:

Where to Look

1. Online Stores:

- **Amazon Japan:** Search for "グルテンパウダー" or "小麦グルテン." Several brands, both domestic and imported, are usually available.
- **Rakuten:** Often carries specialty baking ingredients, including vital wheat gluten.
- **iHerb:** Ships to Japan and carries brands like Bob's Red Mill.

2. Specialty Baking or Health Food Stores:

- Check stores like *Tomizawa Shoten* (富澤商店), which specializes in baking supplies and may carry vital wheat gluten in some locations or online.
- *Kaldi Coffee Farm* or *Natural House* might also stock it in the health food or baking sections.

3. Bulk or Imported Food Stores:

- Stores like *Costco Japan* may have it in bulk, especially from American brands.

Key Japanese Terms to Search For

- グルテンパウダー (Gluten Powder)
- 小麦グルテン (Wheat Gluten)