

WILD FERMENT BREADS

Below are 2 starter methods, the first is the basic starter that is composed of 5+ day feed of pineapple juice and flour on the first day, followed by daily detractions and additions of flour and water until the starter is live and vibrant.

The second is a 3-step build process, a little more complicated but well worth the time and effort as it makes truly amazing bread aromas and textures. This consists of a **“seed culture”** as the starters base and is made from 2 additions of pineapple juice and flour, followed by 2 more days of water and flour additions. This is then turned into a **“barm”** by adding more flour and water and allowed then rest overnight to 3 nights. The barm is then turned into a **“firm starter”** with addition of more flour and water and then again allowed to be refrigerate overnight. This is then turned into the final dough. This may seem difficult. But is a snap once done the first time. Remember to always keep a journal of your starters so you can keep track of composition, feeding schedules and time intervals as well as observation notes. Remember to always name your starters to keep track over time!

WILD FERMENT STARTER (50% hydration level)

INGREDIENTS

To Begin

- 1 cup (113g) whole meal flour
- 1/2 cup (113g) pineapple juice

To Feed

- 1 cup (113g) high gluten/bread flour
- 1/2 cup (113g) room temp water*

** If your house is very warm, use cooler water/juice*

** it is always better to begin with a whole meal flour as wild yeast that gives a sourdough starter life is more present in whole grain flour than other flours.*

Pineapple juice on day-1 will help defend against “leuconostoc” bacteria that can stifle the yeast. The juice neutralizes this bacterium and will allow the yeast to feed.

Day 1:

1. Combine the whole meal flour with the pineapple juice in a 1.5lt. glass beaker or food-grade plastic container.
2. Stir everything together thoroughly with a flay whisk to make sure all the flour is hydrated. Cover the container loosely and let the mixture sit at room temperature* (about 70-75°F) for 24 hours.

Day 2:

1. There will be little action with the starter in the first 24 hours, or you may see a bit of growth or bubbling – so don't be concerned.
2. Discard half the starter (113 grams, about 1/2 cup), and add to the remainder a scant 1 cup of high gluten/bread flour, and 1/2 cup (113 grams) room temp water
3. Mix well, cover, and let the mixture sit at room temperature for another 24 hours.

** do not leave in direct sunlight or overly heated area.*

Day 3:

1. By day 3, you'll likely see activity in the form of bubbling. There should be a fresh, fruity aroma, as well as lift in the volume.
2. Discard half the starter (113 grams, about 1/2 cup), and add to the remainder a scant 1 cup of high gluten/bread flour, and 1/2 cup (113 grams) room temp water

Day 4:

1. Discard half the starter (113 grams, about 1/2 cup), and add to the remainder a scant 1 cup of high gluten/bread flour, and 1/2 cup (113 grams) room temp water

Day 5:

1. The starter should have at least doubled in volume. You'll see lots of foam and bubbles; there may be a thin level of liquid at the surface, full of finer bubbles. At this stage the starter should have a slightly tangy/gamey aroma with pleasingly acidity, but not overpowering like a strong alcohol smell.
2. If your starter isn't showing lots of lift/bubbles, repeat the discard/feed every 12-hours on day 6, and day 7, only if needed.

BEYOND DAY 5 (DAY 6)

1. On day 6, feed the starter one last time, discard all but 130 grams (a generous 1/2 cup) of the starter. Feed as in steps 2-5. Let the starter rest at room temperature for another 6 hours; there should now be bubbles breaking the surface.
2. Remove however much starter you need for your recipe — typically no more than 227 grams, (1 cup), depending on volume needed.
3. If you require more than 1 cup of starter, give it a couple of feedings without discarding, until you've made enough for your recipe plus 113 grams of high gluten flour to keep and feed again.
4. All it to now rest at room temperature for 6-8 hours, to get going, before covering it.
5. Now place the starter in the refrigerator, and feed it once a week with:
 - 1 cup (113 g) bread/high gluten flour
 - 1/2 cup (113 g) room temp water

NOTES:

- Mix your starter well after each flour water addition and scrape down the sides of the beaker with a rubber spatula, making sure all the flour has been hydrated.
- You can keep all the discarded starter and use to make pizza crust (recipe to follow).
- It's always best to use filtered water over tap water.
- You can freeze your starter if you go away for a prolonged time in a Ziploc freezer bag.
- The colder the environment and temp, the slower the starter will build.
- Keep an eye on the starter as all environments and wild yeasts are different. I had a few starters that took off after 3 days and were well on their way. On the other side of this, some starters in a "sluggish" environment make take 10-12 days to get going, so pay attention to your environment and how the starter reacts.

BASIC SOURDOUGH BREAD

INGREDIENTS

- 1 cup (227g) ready sourdough starter
- 1 1/2 cups (340g) lukewarm water
- 5 cups (602g) bread/high gluten flour, divided
- 2 1/2 tsp. (15g) coarse pink salt

METHOD

1. Combine the starter, water, and 3 cups (12 3/4 oz./ 362g) of the flour. Mix vigorously for 1 minute so the mixture resembles a thick paste, this is where the “*amylaze*” (a digestive enzyme that acts on starch in food, breaking it down into smaller carbohydrate molecules.), will occur.
2. Cover, and let rest at room temperature for 4 hours or until doubled in size, then refrigerate overnight for at least 12 hours.
3. Remove from fridge and spray with olive oil, cut into 10-12 pieces and cover with a rag for 30 minutes to take off chill.
4. Place the pre-ferment in a stainless steel bowl and add in the remaining 2 cups (8 1/2 ounces, 241g) flour, and the salt. Knead for about 12-15 minutes until the dough is smooth and elastic. At this point I add in the salt, working it into the bread for better flavour spikes and finished texture. Spray again with olive oil and add to a stainless steel bowl.
5. Toss and coat the dough with oil on all surfaces. Allow to rise in a covered bowl until doubled, this may take up to 4-6 hours (or even longer), depending on how active your starter is.
6. Place in the refrigerated overnight to cold ferment.
7. Remove from the fridge and allow to rest for 30 minutes to take the chill off the dough.
8. Gently divide the dough in two halves (about 1 1/2 lbs./680 g. each.)
9. Gently shape the dough into two rounds or oval loaves, and place them on a parchment baking sheet lined with semolina flour. Make incisions in the dough as you wish and sprinkle generously with bread flour. Cover with a large, deep inverted stainless steel bowl and allow to rise until at least doubled in size, about 3 to 6 hours.
10. Preheat your oven to 500°F. or the highest possible temperature.
11. Place a wire rack on the lowest oven shelf level and place a shallow pan on top of the rack, place another wire rack on the shelf directly above that. Close the oven door and heat for 5 minutes. Transfer the shaped dough that is resting on a parchment sheet carefully to a baking sheet pan. Open the oven and pour 1/2 to 3/4 water into the shallow pan, this should create steam, immediately place the dough loaf(ves) into the oven above the water pan.
12. Using a spray bottle, every 30 seconds for the next 2 minutes, open the oven and spray the sides of the oven as well at the bread. You will do this 4 times in the first 2 minutes.
13. Lower the temperature to 450°F and bake the bread for 12-15 minutes. After this time, rotate the bread and bake for another 20-25 minutes until it's a very deep golden brown. Remove the bread from the oven, and cool on a rack. Allow to cool for at least 30-45 minutes before cutting into it – this is crucial to finish the cooking process.
14. Once completely cooled, store bread, loosely wrapped in paper bag, for several days at room temperature; freeze for longer storage.

3-BUILD STARTER

Below are the steps for the 3-step build starter, which consists of a **seed culture**, a **barm** (lower German meaning the scum that floats on top of ferment), made from the seed culture and a **firm starter**, made from the barm. This system makes an incredible chewy texture and complex flavour beyond that of a basic starter well worth the extra time and effort.



SEED CULTURE – 4 days

DAY 1

- 1 cup (120g) whole meal flour
- ½ cup (118 ml.) pineapple juice, room temp

Mix the flour and juice together in a stainless steel bowl to form a ball of loose dough, do not be concerned on the texture, only that all flour has been hydrated. Place this dough into a 1lt. beaker or jar and mark the level the dough is at with a piece of tape. Cover with plastic wrap or lid and leave out at room temp for 24 hours.

DAY 2

- 1 cup (120g) high gluten/bread flour
- ½ cup (118 ml.) pineapple juice, room temp

There will not be much action after day 1 with the culture. Place day 1 sponge back into a stainless steel bowl and add in day 2 pineapple juice and flour. Mix well to hydrate with a small flat whisk and return the contents of the starter seed culture to the beaker or glass jar, pressing down as flat as possible and replace the tape marker on the outside of the beaker/jar. Replace the lid or plastic wrap and ferment again at room temp for 24 hours.

DAY 3

- 1 cup (120g) high gluten/bread flour
- ½ cup (118 ml.) water, room temp

There should be significant rise (40-50%) in the dough now as well as some fermentation bubble on top. Discard half the starter, (or this can be gifted to a friend), and mix in the day 3 ingredients carefully into the beaker/jar, it should be a little more wet in body than the past 2 days. The dough level should be at the tape level from day 2 when you press down on the mass a bit. Adjust the tape if needed and ferment at room temp for 24 hours.

DAY 4

- 1 cup (120g) high gluten/bread flour
- ½ cup (118 ml.) water, room temp

Your sponge should now have at least doubled in mass. If it hasn't, allow to sit out another 12-24 hours (as needed). If it still hasn't risen, repeat the day 3 steps by discarding half the culture and adding in more flour and water to hydrate, cover and ferment until at least doubled in mass (approx. 24 hours).

When the mass falls when you "ping" the beaker, you are ready to start the "**barm**" (mother starter) process.

BARM – 1-3 days

INGREDIENTS

- 3 ½ cups (400g) high gluten/bread flour
- 2 cups (450g) room temp water
- 1 cup (260g) seed culture (recipe above)

METHOD

1. Stir together all ingredients in a stainless steel bowl. Any excess seed culture can be discarded or give to a friend to start their own barm “mother”). Make sure the flour, water and seed culture are thoroughly mixed and hydrated. It will be wet and sticky like a “*poolish*”. Transfer the barm to a glass or plastic container 2-3 times larger than the current barm mass, use a wet spatula dipped in water to do this to make it easier. Cover with a lid or plastic wrap and allow to ferment at room temp for 6-8 hours until the surface is bubbly.
2. At this point the plastic wrap or lid should have pressure expansion from the trapped gasses in the barm. Carefully lift the lid or wrap and allow the gas to escape – be careful as the ethanol fumes can be quite strong!
3. Replace the lid or wrap and place in the fridge overnight. The barm will then be ready to use and will be good for the next 3 days in its current state. The longer the barm sits, the less “*sour*” your bread will be as the acids and bacteria dissipates dropping the pH – this is what give the bread that “*sour*” tang – not the yeast as many people would think.
4. Refresh the barm as needed by using the doubling method. For 1lb (454g) of barm, use 1 ¾ cup of flour and 1 cup of water. If you are using it regularly you not need to discard any before the new additions of flour and water.

FIRM STARTER – 1 day

INGREDIENTS

- 2/3 cups (120g) barm (recipe above)
- ½ cup (60g) whole grain flour
- ½ cup (60g) bread/high gluten flour
- ¼ cup (118 ml.) room temp water

TO MAKE THE FINAL DOUGH

- 2 ½ cups (300g) high gluten/bread
- 2 cups (240g) whole meal flour
- 2 tsp. coarse pink salt
- 1 ½ to 1 ¾ cups (354 - 415 ml.) 110°C water

1. Remove the barm from the fridge, measure out 2/3 cup (if making 2 x 1.5lb loaves), 1 hour before making the firm starter to bring it to near room temp. To do this easily, dip the measuring cup in water and then into the barm so it will slide easily into your stainless mixing bowl. Cover the bowl with the barm and allow to sit for 1 hour.
2. Now add in the flours to the mixing bowl with the barm and mix with a wooding spoon while adding the water, only adding enough to just bringing the starter together to the consistency of baguette dough (soft and tackified), making sure all the flour is hydrated and even distributed. Oil a small bowl with a spray bottle and place the firm starter in the bowl. Place this inside a 1 quart Ziploc bag and seal, allow to ferment at room temp for 4 hours or until the starter has at least doubled. Place in the refrigerator overnight.

Cont.

3. The next day remove from the fridge and using a pastry/bench scraper, cut into 8-10 pieces while cold. Spray with olive oil and cover with an inverted stainless steel bowl or damp kitchen towels and allow to sit 40-60 minutes or until the chill is gone.
4. Now make your dough by placing the dough in a large stainless steel bowl and adding the pieces of the firm starter. Using a wooden spoon, still frantically in a clockwise motion until the mass incorporates. When solid enough start to use your hands and begin kneading the down in the bowl, incorporating as much flour as possible. Sprinkle a wood or marble counter with flour and turn out the dough, continuing to knead by hand using the "*turn and fold*" method for 12-15 minutes, adjusting the flour or water as needed. As you are doing this add in the coarse salt in intervals until all is used. The dough should be firm but tacky and be able to pass the "drum skin/window pane test" (stretch a small piece of dough so the it stretches out transparent without breaking). If you are unable to do this, knead for another 5-7 minutes until achievable (the dough at this point on an instant read thermometer should read 76°F (25°C)). Spray the dough and a large stainless steel bowl with olive oil and place the dough in the bowl coating the entire surface of the dough.
5. Ferment to dough covered at room temp for 4-5 hours or until at least doubled in size. At this point you can proceed to shaping your loaves, or place the oiled dough in the fridge overnight for 12-16 hours to cold ferment.
6. If making your bread now, separate the dough into 2 balls of dough (about 620g), or even smaller if making dinner rolls or buns. BE VERY CAREFUL not to degas the dough as this will take away from the final breads texture and shape. Shape as you wish into baguette, demi-baguette, boules or batard and proof in bowls, couches or bennetons (or sheet pans lined with parchment dusted with semolina flour).
7. Proof these loosely covered with olive sprayed wrap for 2-3 hours. If proofing overnight, remove the dough from the fridge for 3-4 hours and continue from step 6.
8. While your loaves are proofing, Preheat your oven to 500°F. or the highest possible temperature. Place a wire rack on the lowest oven shelf level and place a shallow pan on top of the rack, place another wire rack on the shelf directly above that. Close the oven door and heat for 5 minutes. Transfer the shaped dough that is resting on a parchment sheet carefully to a baking sheet pan. Open the oven and pour ½ to ¾ water into the shallow pan, this should create steam, immediately place the dough loaf(ves) into the oven above the water pan.
9. Using a spray bottle, every 30 seconds for the next 2 minutes, open the oven and spray the sides of the oven as well at the bread. You will do this 4 times in the first 2 minutes.
10. Lower the temperature to 450°F and bake the bread for 12-15 minutes. After this time, rotate the bread and bake for another 20-25 minutes until it's a very deep golden brown. Remove the bread from the oven, and cool on a rack. Allow to cool for at least 30-45 minutes before cutting into it – this is crucial to finish the cooking process.
11. Once completely cooled, store bread, loosely wrapped in paper bag, for several days at room temperature; freeze for longer storage.

PANE D'ALTAMURA

INGREDIENTS

• 700g	Semolina flour (Durum flour)	350g
• 440g	Water at room temperature	220g
• 220g	Semolina starter (see NOTE below)	110g
• 3g	malt	1.5g
• 12g	Super-fine Himalayan Salt	6g
• 1g	Dried Organic Yeast	½g

METHOD

1. To make the dough, mix the semolina flour with the water and then add in your starter then leave covered for 30 minutes (to autolyze). Next, add the salt and dried yeast.
2. If you have a mixer, mix on slow speed for 2 minutes until well combined, then for a further 8 minutes on a medium speed until nice and smooth. Place the dough into an oiled bowl and cover and allow to ferment for 3 hours.
3. To knead by hand, for the next hour, using a wet or oiled hand, give the dough a stretch and fold every 10-minutes. That is, with the dough in the bowl, put your hand down the side of the dough and pull it up and across the bowl, rotate and repeat a couple of times. Keep the bowl covered with a damp tea towel.
4. Flour your counter top and shape the dough into a boule (round loaf) and allow to rest on the floured worktop for 25 - 30 minutes covered with a large inverted stainless steel bowl.
5. Reshape into the "*forma alta*" (high shape) by turning dough over and gently pull into an irregular boule, taking care not to knock out too degas too much and place onto a piece of parchment paper lined generously with semolina flour– these loaves are not perfectly symmetrical and so they don't need a benneton or couche. Prove for 3 - 4 hours at room temperature until fully proofed - you can check this by gently pushing the dough with your index finger. If it feels firm it is under-proofed. If it bounces back quickly it still has more to go. When it returns slowly then it is ready to go. If it does not return, but deflates it has over-proofed.
6. Preheat your oven to 500°F. (260°C) or the highest possible temperature. Place a wire rack on the lowest oven shelf level and place a shallow pan on top of the rack, place another wire rack on the shelf directly above that. Close the oven door and heat for 5 minutes. Transfer the shaped dough that is resting on a parchment sheet carefully to a baking sheet pan. Open the oven and pour ½ to ¾ water into the shallow pan, this should create steam, immediately place the dough loaf(ves) into the oven above the water pan.
7. Using a spray bottle, every 30 seconds for the next 2 minutes, open the oven and spray the sides of the oven as well at the bread. You will do this 4 times in the first 2 minutes.
8. Lower the temperature to 450°F and bake the bread for 12-15 minutes. After this time, rotate the bread and bake for another 20-30 minutes until it's a very deep golden brown (nearing some blackening) on top. Remove the bread from the oven, and cool on a rack. Allow to cool for at least 30-45 minutes before cutting into it – this is crucial to finish the cooking process.
9. Once completely cooled, store bread, loosely wrapped in paper bag, for several days at room temperature; freeze for longer storage.

NOTE: To make your semolina starter, use the exact same recipe as your "wild ferment starter" as outlines at the beginning of these recipes. Just substitute semolina flour for all other flours and follow all the other steps as outlined.

YIELD: 1200gm. (1 or 2 loaves)

WILD FERMENT PIZZA CRUST – Roma Style Thin Crust

CRUST

INGREDIENTS

- 1 cup (241g) wild ferment starter
- 1/2 cup (113g) warm water
- 2 cups (240g) bread/high gluten flour
- 1/2 cup (60g) whole meal flour
- 1 tbsp. roast garlic puree
- 1 tsp. onion powder
- 1/2 tbsp. fresh, chopped thyme
- 1/2 tbsp. fresh, chopped rosemary
- 2 tsp. fennel seeds
- 1 tsp. pink salt

METHOD

1. Stir any liquid on top of your refrigerated starter back into it before measuring 1 cup (241g) into a large mixing bowl. *Note: This is the now the time to feed the remainder of your starter, if necessary.*
2. Add the warm water, flour, salt, yeast, spices and herbs. Mix to combine with a wooden spoon to create a “workable dough”, then turn onto a counter-top and knead for about 10-12 minutes until smooth and elastic.
3. Place the dough in a greased stainless steel bowl, cover and let rise until almost doubled in bulk. Depending on your starter, this will take between 2 and 4 hours. For a faster rise, place the dough in a warm spot, or double the yeast.
4. For two thin-crust pizzas, divide the dough in half, and shape each into a flattened disk. Cover with a cloth and allow to rest 5-7 minutes. Brush two 12"-round pizza pans with olive oil, and brush to coat the bottom. Place the dough in the pans, “dock” with the tines of a fork and cover, and let rest for 10 minutes. At this point, pre-heat your oven to the highest temperature (500°F). After this rest, gently press the dough toward the edges of the pans.
5. Build your pizza with desired toppings and place in the oven, spray the oven walls 3 times in the first 90-seconds with a spray bottle. Cook the pizzas for about 10 minutes and then brush the outer edge of the crust with olive oil, cook for 3-5 minutes more until the bottom of the pizza is dark black and the outer crust crackling.
6. Remove from the oven, slice as desired.

YIELD: 2 – 12” thin crusts

PIZZA SAUCE

INGREDIENTS

- 2-29-Oz. Can Pureed Tomatoes
- 20 oz. Tomato Paste
- 1 tbsp. Honey
- 2 tbsp. Fresh Oregano
- 2 tbsp. Fresh Parsley
- TT Salt
- TT Black pepper

METHOD

1. Pass the tomatoes through a food mill to remove all the seeds. Then mix all the other ingredients together in a large non-reactive container and chill for at least 3 hours.
2. Freeze the rest if not using until needed.

YIELD: 1.5kg

RICOTTA

INGREDIENT

- | | | |
|----------|---------------------------------|---------|
| • 2lt | whole milk, or UHT pasteurized | 4 lt. |
| • 90 ml. | 1/3 cup distilled white vinegar | 180 ml. |
| • ½ tsp. | citric acid | 1 tsp. |
| • 1 tsp. | salt | 2 tsp. |
| • 1 tsp. | sugar | 2 tsp. |

METHOD

1. **Warm the milk to 190°F (87°C):** Pour the milk into a 4-quart pot and set it over medium heat. Let it warm gradually to 190°F, monitoring the temperature with an instant read thermometer. The milk will get foamy and start to steam; remove it from heat if it starts to boil.
2. **Add the vinegar, citric acid and salt:** Remove the milk from heat. Pour in the vinegar from high above the pot and then add the citric acid and the salt. Stir gently 3-4 times to combine. Cover the pot with lid.
3. **Let the milk sit for 10 minutes:** Let the pot of milk sit undisturbed covered with lid for 10 minutes. After this time, the milk should have separated into clumps of milky white curds and thin, watery, yellow-colored whey — dip your slotted spoon into the mix to check. If you still see a lot of un-separated milk, add another tablespoon of lemon juice or vinegar and wait a few more minutes.
4. **Strain the curds:** Set a strainer over a bowl and line the strainer with cheese cloth. Scoop the big curds out of the pot with a slotted spoon and transfer them to the strainer. Pour the remaining curds and the whey through the strainer. (Removing the big curds first helps keep them from splashing and making a mess as you pour.)
5. **Drain the curds for 15 minutes:** Let the ricotta drain for 15 minutes, depending on how wet or dry you prefer your ricotta. If the ricotta becomes too dry, you can also stir some of the whey back in before using or storing it. Stir in one teaspoon of white sugar and mix lightly
6. **Use or store the ricotta:** Fresh ricotta can be used right away or refrigerated (pressed if desired) and placed in an airtight container for up to a week.

YIELD: 600/1200 gm.