

A Quick-Start Guide to Milling at Home



For many of us, the idea of milling our own wheat would never have crossed our minds 10 years ago. How many of us knew someone growing up who milled wheat at home? Probably not many! But as mills have become small enough to fit on a kitchen counter--and as our food supply has had unknown numbers of chemicals, additives, and preservatives added to it--an entire generation is returning to this most basic way of running their kitchen.

All that to say...this is new for a lot of us. **And the only way to get better at something new is to get started and keep going!**



When you're getting started, it can be easy to get overwhelmed with the types of grain and options for baking. Let me offer this:

Start small and easy!

Here are the three grains I would start with to get comfortable with fresh milling (because there is a learning curve):

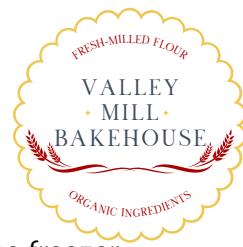
1. Soft white wheat: For your cookies, cakes, muffins, and lighter baking.
2. Hard white wheat: For your yeast breads, sourdough, and anything that needs a good rise.
3. Hard red wheat: To mix with your hard white to get a strong protein/gluten content.

Let me add one more thing that may be controversial: Unless you're comfortable baking homemade bread, do not start with bread! The fresh flour behaves differently than store flour, so you may end up discouraged from the start. Grab a cookie recipe, or use one of the recipes included in the following pages. Search for an easy recipe online specifically with fresh-milled flour (I've included some resources in the back of this workbook). Make it easy for success, and save the science until you're comfortable with the flour.

TIPS THAT CAN HELP AVOID COMMON MISTAKES (FOR BEGINNERS AND ALL OF US!):

- **Use the right flour for the baking job.**
- **Measure accurately!**
 - Weigh your ingredients.
 - If you can't, fluff the flour and spoon into the cup, then level with a knife. And remember that fresh flour--even different types of fresh flour--has different weights.
 - Too much flour can make a heavy, crumbly bake.
- **Fresh-milled wheat is thirsty.**
 - You may need to increase the flour (especially soft white) in recipes by up to 1/4 cup or add a bit more moisture.
 - Let your bread dough rest for at least 5-10 minutes if possible to allow the wheat to absorb moisture. Let most cookie doughs rest 2+ hours or overnight.
- **Get to know the dough, and use the recipe as a guide, not a rule.**

As you bake, you'll know what your recipes should look like. Fresh flour can act similarly to sourdough. The moisture in the air, type of wheat, and wet ingredients can all change how the flour behaves.



WHEAT BERRY BASICS

HOW LONG DO THE WHEAT BERRIES LAST?

Without any extra care, wheat berries are good for about six months. They will last longer in the freezer. Stored in a dark, cool, airtight container, they can be good for 10 years, but most places say they're good for 30 years or more.

HOW LONG DOES FRESH-MILLED FLOUR LAST?

Freshly milled wheat berries start to lose their nutrients about 48 hours after milling. Milled flour can start to go rancid after just three days (especially in the summer when it's warm and humid). I would not recommend using the flour after 5-7 days--as with raw milk, you'll likely be able to smell when the wheat starts to turn. You can lengthen the life of your flour by freezing any that's unused.

HOW TO STORE FOR KITCHEN USE?

If you plan to use the wheat berries regularly, you can store them for easy access. Large mason jars, counter-top containers, or five-gallon food-grade plastic tubs with Gamma lids work well.

HOW TO STORE FOR LONG-TERM USE?

If you don't plan to use your berries right away, there are a few steps to ensure they're fresh and ready to use at a later date. You'll need a **freezer**, **mylar bags**, **oxygen absorbers**, an **iron**, and a **storage container**. First, freeze the berries for at least 72 hours to ensure any bugs or larvae are killed (yes, wheat berries might have nature on them!). Next, package the berries in mylar bags, put in one or two oxygen absorbers depending on the size of the bag, press out extra air, and heat seal with an iron (a straightening iron for hair also works to seal the bag!). Put your bags in a plastic bin to keep hungry critters from getting in. Once sealed, the wheat is good for at least 10 years, although wheat berries several hundred years old have been found to still be viable!

WHAT'S IN A NAME?

Wheat berries have many names, but they just refer to growing season, color, and outer shell.

Spring or Winter wheat refers to the season in which it's grown. **Winter wheat** grows where winters are mild and the berries are harvested in the spring or early summer. **Spring wheat** is grown in colder climates, mostly Canada and the northern U.S., and harvested in late summer.

Red or White wheat refers to the color of the berry. **Red wheats** have a stronger, nuttier flavor, whereas **white wheats** have a mild flavor.

Soft or Hard refers to the moisture in the wheat, which affects the protein content. **Hard wheat** is low moisture, high protein, and grows well in colder climates. Hard wheat has enough protein to support gluten structure and properly rise a yeast or sourdough bread. **Soft wheat** is high moisture, low protein, and grows in warmer climates. Also known as pastry flour, soft wheat does not have enough protein to raise bread but works beautifully for cookies, cakes, and muffins.

WHAT WHEAT TO USE WHEN

Soft White Wheat Berries

Best for: Cakes, cookies, muffins, and any non-yeast, lighter baking tasks

Hard White Wheat Berries

Best for: Yeast breads, rolls, sourdough, etc. If you use this without hard red berries, you may need to supplement with vital wheat gluten to get a proper rise (1/4 tsp. gluten per cup of flour)

Hard Red Wheat Berries

Best for: Yeast breads, rolls, sourdough, etc. Mixing this with your hard white berries gives a stronger protein to form the gluten strands, so you may not need added gluten.

Other Types of Grains

Spelt: Best for quick breads or yeast breads

Kamut or Khorasan: Best for pasta, quick breads, muffins, or yeast breads

Einkorn: A popular ancient grain, best for quick breads, pancakes, muffins, yeast bread (use with hard wheat)

If you haven't yet bought a mill but are interested in fresher flour, you can order flour online that is organic and milled for freshness, though not quite as fresh as five minutes out of your own mill. Check out Twains Grains, Farm2Flour, or Better Basics Milling. Try your hand at baking with fresher flour, and get comfortable before you make a purchase. If you're like me and just want to jump right in, check out NutriMill Mills. I've been using them for more than four years and haven't had any issues, even with daily use. (You can use code **VALLEYMILL** to save \$20 on your NutriMill, by the way!).