

Sifting and Blending Your Own Flour

Choose the grain. Sift the bran. Blend to the job.

Whole grain flour straight from the mill contains everything the berry had in it. The bran in that flour is sharp, and it cuts through gluten as it develops. It also drinks a great deal of water. That is why fresh milled bread comes out shorter and denser than the bread people remember from a bag.

Sifting removes some of that bran. It does not remove the germ, and it does not turn your flour into commercial white flour. What it gives back is the ability to bake soft things again. But sifting alone will not get you there.

THE TWO DIALS

Sifting controls extraction. How much bran you remove. This governs softness, rise, and how rustic the crumb reads.

Blending controls protein. Which wheat you start with. This governs structure and chew.

You cannot sift your way to a tender crumb. Sift hard red wheat until your arms ache and you still have thirteen percent protein in the bowl. Beautiful bread flour, tough cake.

Choosing the Right Grain

People think they are making one choice at the grain bucket. They are making two.

Choice	What it decides	What it means at the counter
Hard or soft	Structure	Hard wheat is high protein and builds a gluten network strong enough to hold a loaf up. Soft wheat is low protein and stays tender.
Red or white	Flavor	Red wheat carries more tannin. Robust, faintly bitter, browner in the bowl. White wheat is milder. Color says nothing about structure.

WHERE IT GOES WRONG

Someone buys hard red wheat expecting a soft sandwich loaf, sifts it faithfully, and cannot understand why the bread still fights them. The color was never the problem. The hardness was.

Grain	Protein	Reach for it when you are making
Hard white wheat	12 to 14%	Sourdough, yeast breads, pizza, sandwich loaves
Hard red wheat	13 to 15%	The same, when you want a deeper, wheatier flavor
Soft white wheat	8 to 10%	Cakes, pastry, biscuits, cookies, quick breads

You do not need six buckets. Hard white and soft white cover nearly everything you bake.

Sifting: What Comes Out and What Stays

Run your fresh milled flour through a sieve and two things separate. What passes through is your sifted flour. What stays behind in the mesh is the coarse bran.

The germ, which is where most of the nutrition and all of the flavor of fresh milling lives, is small and soft enough that it passes through with the flour. **You are not sifting away the reason you mill your own grain.** You are removing the sharp coarse fraction that fights you.

Mesh	Roughly yields	Character
Coarse, 40 to 50	90 to 95% extraction	Barely changed. Takes the sharpest edge off only.
Medium, 60 to 70	80 to 88% extraction	The everyday working range. Noticeably softer, still clearly whole grain.
Fine, 80 and up	70 to 80% extraction	Light and pale. Closest to store bought. Most bran removed.

Numbers vary by grain, by moisture, and by how fine your mill was set. Yours will not match anyone else's exactly, and that is fine. What matters is that you can repeat your own.

BY HAND OR BY MACHINE

An electric sieve does this in a few minutes and is worth it if you sift often. Two hand sieves and a bowl do exactly the same job. It takes longer and your arms will know it, but the flour that comes out is identical. Nobody needs to buy a machine to bake soft bread.

Finding Your Extraction Rate

Extraction is simply how much of the original flour you kept. Weigh going in, weigh coming out, and divide. Do it once for each mesh you own and you will never guess again.

Whole flour into the sieve	_____ g
Sifted flour that passed through	_____ g
Bran left behind in the mesh	_____ g
<i>Sifted flour divided by whole flour, times 100</i>	_____ % extraction

WEIGH, DO NOT MEASURE

Sifted flour is lighter and airier than whole flour, so a cup of it holds noticeably less. Working in grams keeps this honest. It is the single habit that makes fresh milled baking repeatable.

Blending Your Own All Purpose Flour

Sift both grains first, then blend by weight. This is the chart. All four blends come out of the same two buckets.

Blend	Hard white	Soft white	Protein	Use it for
Bread	All of it	None	12 to 14%	Sourdough, yeast bread, pizza
All purpose	Half	Half	10 to 11%	Cookies, biscuits, everyday baking
Pastry	One quarter	Three quarters	9 to 10%	Pie crust, scones, muffins
Cake blend	None	All of it	8 to 9%	Butter cake, pound cake, quick breads

To make a pound of all purpose: sift your hard white and your soft white separately, weigh 227 grams of each, and whisk them together until the color is even. Store it the way you store any fresh milled flour, cold and used soon, because the germ is still in there and the oils are alive.

AN HONEST WORD ABOUT CAKE FLOUR

What you are making is a cake blend, not cake flour. Commercial cake flour is chlorinated, and chlorination is what lets a batter hold together when the sugar outweighs the flour. That cannot be done at home. Your soft wheat blend will make a lovely butter cake, pound cake, or quick bread. It will not carry a high ratio white cake, and it will sink if you ask it to.

What to Do with the Bran

It is not waste, and it does not go in the bin.

- Stir it into oatmeal, granola, or a morning porridge.
- Soak it overnight in the water from your bread recipe, then add it back to a rustic loaf. Soaking softens the sharp edges so it stops cutting gluten.
- Add a spoonful to muffins, pancakes, or crackers where a little texture is welcome.
- Feed it to the chickens. They are not fussy.

Store bran cold like the flour. It has the same oils and the same short life.

THE SHORT VERSION

Choose the grain for the job. Sift to the softness you want. Blend to the protein the recipe needs. Weigh everything.