

Baking with Whole Grain and Wheat-Free Flours

There are many benefits to baking with unrefined and non-wheat flours. Whole grains contain abundant vitamins, minerals, protein and fiber that are removed in the refining process. Allergies are a growing concern as well. In her book, The Allergy Source Book, Merla Zellerbach estimates that 20% of people suffer from food sensitivity, allergy or intolerance. Wheat, wheat proteins and gluten are common allergens. Luckily, baking wheat-free is easy, and it can be delicious. Non-wheat flours have many different flavors and textures. Once you become familiar with their individual qualities you will surely develop your favorites. Here are some general guidelines to get you started.

- When using whole grain flours it is important to sift them. Most come unsifted and often lump or pack down during storage. Sifting flours 2-3 times before using them will produce a lighter, more delicate product. Please note that some of the bran may sift out. For delicate cakes and pastries leave it out (oat and barley bran make great hot cereals), for pancakes or muffins add the bran back in after sifting.
- It will improve the flavor of your final product if you lightly toast your flours before using them. This brings out their natural flavors and eliminates the need for too much sugar, salt or oil. Simply place the flour in a baking dish that is about 1/2" deep and toast it in a 350° oven for about 15 minutes, stirring frequently. You know that it is done when it begins to smell nutty and just starts to change color.

The following is a list of whole grain flours and a brief description of each. Remember nothing can substitute for experience. To really learn about cooking you have to try it!

Whole Wheat – This flour is ground from the intact kernel of winter wheat. It is high in gluten and fiber. It is suitable for yeast breads, whole grain muffins and pancakes.

Pastry Wheat – This flour is ground from the intact kernel of soft spring wheat. It is lower in gluten and bran than whole-wheat flour. It is suitable for cakes, cookies, piecrusts and biscuits.

Spelt – This is the flour of a non-hybridized variety of wheat. Many people who are allergic to modern wheat are not allergic to spelt. It can be used in the same ways as whole-wheat flour.

Kamut – This is the flour of a non-hybridized variety of wheat and is related to the Durum wheat used in pasta. Many people who are allergic to modern wheat are not allergic to kamut. It is most often used in yeast breads, pasta, muffins and biscuits.

Rye – This is a strongly flavored grain with lots of bran and only slightly less gluten than wheat. It is used in the same ways that whole wheat is used but will yield a denser product. Sourdough rye bread made with 100% rye flour is a moist and chewy treat.

Triticale – This grain is a cross between wheat and rye that is very high in protein. It can be used in the same ways that both of these grains are used.

Barley – This grain has much less gluten than wheat and is not appropriate for yeast breads. It behaves very similarly to pastry flour and may be substituted for it in any recipe (It may be necessary to

add 1-2 T of extra barley flour for every cup of pastry flour called for.) Barley flour can be used to make cakes, biscuits and cookies in place of wheat flour. It is especially tasty when lightly toasted.

Oats – This grain has less gluten than barley flour. It is sweet and tends to be moist and sticky. Because of this moist quality oat flour is best when blended with another, drier flour. Try a mixture of ½ oat flour blended with ½ barley, millet or rice flour. This blend makes delicious cookies.

Brown Rice – Rice is completely gluten free and is suitable for people with severe gluten intolerance. Brown rice flour is fairly dry and crumbles easily when used in baking. It works well when combined with a moister flour such as oat or with a moist ingredient such as applesauce or bananas. Because of its slightly gritty texture, brown rice flour can give the illusion of sugar in naturally sweetened cookies or piecrusts.

Corn – There are many varieties of corn flour and corn meal available. *Corn meal* is coarsely ground corn that is commonly used in corn bread, hot cereal or as a breading for fried foods. *Corn flour*, also called masa harina, is finely ground corn. It is used to make tortillas and can be blended with other flours in a variety of baked goods. Corn products turn bitter when they get old so it is important to buy them when they are fresh and keep them refrigerated or frozen. Corn is completely gluten free.

Millet – This native African grain is high in protein and easy to digest. It has a tiny amount of gluten in it, but many people with gluten sensitivities are able to tolerate it. In baking it behaves similarly to brown rice or corn flour and can be used in the same ways.

Teff – This tiny Ethiopian grain is high in fiber and nutrients. It is traditionally used to make sourdough flat bread called injera. It has a nutty flavor similar to whole wheat, but the flour is dark and moist. It works very well in combination with other flours such as millet, barley or buckwheat as well as carob powder. When combined it makes delicious pancakes, cookies, cakes and crackers. It is very low in gluten and is well tolerated by many people with gluten sensitivities.

Buckwheat – Buckwheat is not wheat at all. In fact it is not even a grain, but rather a seed of a plant related to rhubarb. Many people with grain allergies can have buckwheat. *It is also very low in gluten.* Buckwheat flour that is purchased in the store is ground with the buckwheat hull and is sticky, dense and dark. It makes great pancakes and crepes. You may also make your own buckwheat flour by grinding the raw or roasted grain in your coffee grinder. This flour is much lighter than the store bought variety, and its flavor is mild (raw) or nutty (roasted). These flours can be used in muffins, quickbreads or biscuits. All buckwheat flours absorb a lot of liquid. You may need to add extra water to your batter, and/or use a moistening ingredient such as shredded vegetables or applesauce with them.

Amaranth – This seed from South America is not a grain, but a relative of spinach. It is higher in fiber, oil and protein than most other flours. This makes it highly nutritious and it is well tolerated by most people because it is low in gluten and unrelated to cereal grains. It is moist and oily with a strong nutty flavor. It should be combined with drier flours such as quinoa or buckwheat or the liquid in a recipe should be reduced. Like corn flour it can turn bitter easily, so store it refrigerated or frozen. Amaranth is wonder in savory recipes but is too strongly flavored for most sweets. Try it in waffles or biscuits.

Quinoa – This close relative of amaranth is similarly hypoallergenic and nutritious. Unfortunately most of the commercially available quinoa flour is bitter and has a flavor like raw beans. This must be because of the natural protective coating on the grain. When cooking the whole grain this is rinsed off. You can make your own quinoa flour by rinsing the grain in a mesh strainer and drying it in the oven. It can then be ground in a coffee grinder and used in muffins, biscuits and pancakes. It has a mild flavor and is good combined with amaranth or used alone.

The following page has some recipes to get you started. Just remember to experiment and have fun. Cooking is an art.

Country Corn Bread

This homey bread can be cooked in a square baking pan, a cast iron skillet or muffin tins. When rice flour is used the recipe is gluten free. Unfortunately it also tends to stick and crumble more than wheat flour. Try baking muffins in paper baking cups for virtually no clean up!

- 1 cup corn meal
- 1 cup barley or rice flour
- 1 tablespoon non-aluminum baking powder
- 4 oz. Silken tofu (~1/2 cup)
- 1 tablespoon Lecithin
- 2 tablespoon canola or grapeseed oil
- 1-2 tablespoon honey
- 1/2 teaspoon sea salt
- 1 cup water

Preheat the oven to 425°. If using a baking pan, oil and flour it. If using a cast iron skillet place it in the oven to heat, and oil it before pouring in the batter. Sift together the cornmeal, flour and baking powder. If some of the coarser cornmeal sifts out, just add it back in. Place the remaining ingredients in the blender and process them until smooth. Combine the wet and dry ingredients adding a small amount of water, if needed, to make a thick, moist batter. Pour the batter into a pan or lined muffin tin and bake it for 20-25 minutes, until a toothpick inserted in the center comes out clean. Cool cornbread for 15 minutes before serving. It is delicious served with organic butter and honey. *Serves 8-10*

Hazelnut Thumbprint Cookies

This recipe comes from Ned Norton. They are true crowd pleasers. Nobody will ever guess that they are completely free of wheat, dairy and sugar.

- 1 cup of barley flour
- 1 cup of oat flour
- 1 cup of hazelnuts
- 1/2 cup maple syrup
- 1/2 cup canola oil
- 1 teaspoon cinnamon
- pinch of sea salt
- 1 jar of jam or marmalade

Preheat the oven to 350°. Lightly roast the hazelnuts for about 10 minutes, until their skins crack. Place all of the nuts in a kitchen towel and rub them together for a minute to loosen their skins. (It is all right if all the skins don't come off.) Grind the nuts into a coarse meal in a food processor or coffee grinder. Mix together the nuts, flour and cinnamon. In a separate bowl dissolve the salt in a little hot water and add the oil and maple syrup. Combine the wet and dry ingredients and mix them well. Form the dough into 2" balls and make a well in the center with your thumb. Fill the center with jam. Bake the cookies for about 25 minutes, until the jam bubbles.

Makes 12 cookies