



Flaking, Sprouting, Roasting, and Milling Grain

Made by Sustainability, Wellness and Learning (SWELL) for Colorado Grain Chain Roadshow

FLAKING Grain

Flaking grain allows for making muesli mixes, granola, or porridge. As with all processing of grain, freshly flaked grain from raw, dry berries into a fresh cereal preserves much of the nutrients of the grain. Flaked grains are so versatile and yet we only know about oats or oatmeal. There are many varieties of grains available for purchase in the bulk section. Hand flakers are available through various online purchasing options and are perfect for making a fresh breakfast cereal (see www.pleasanthillgrain.com or www.breadtopia.com).

Flaking preparation for harder grains: For most softer grains, there is no need to pre-hydrate the grain (e.g., einkorn, oats, soft white wheats, rye). However, for harder grains (hard wheats, barley, millet, quinoa) it is better to pre-hydrate the grain. For each half-pound (500g) of grain use 1 oz (35 mL) of water and soak overnight before flaking.

Sprouting Grain

Sprouting grain is a wonderful way of increasing digestibility and making nutrients more available for the body after they are absorbed. Phytic acid found in the bran of the grain breaks down gradually during this process, which helps with mineral absorption, especially iron and zinc. Sprouting also begins the process of breaking down gluten found in the endosperm (center part of grain).

Sprouting process: Rinse grain first. Soak overnight or for 24 hours in 3 times as much water. Rinse grain thoroughly using a colander. Move grain with clean hands for a thorough rinse. Then place grain in clean jars (best sterilized), covering with mesh. Leave in a warm area for sprouting but continue to rinse at least 2 times per day, also rinsing out jars each time. Watch for sprouts to appear. It is best not to have sprouts grow longer than the actual grain. Thus, watch this process carefully. Sprouting in grain should occur within 3-5 days. As with all sprouting, there is a risk of food-borne illness, depending on potential spores present on the grain. The most common spores on sprouting greens (not grains!) are E. coli, salmonella, or listeria. The risk is reduced if the grain is subsequently baked or cooked at high heat.

Great options for sprouting include: Any whole grain.

Sprouted grain that's subsequently used in bread baking needs to get dehydrated unless the bread is a porridge-type bread. In order to dry the grain for milling, the sprouted grain is best dehydrated at very low heat for 24 hrs or more. Best results occur with a dehydrator because the grain is fragile in this sprouted state and it would be unfortunate if it were to burn, as this would reduce the enchanted nutrient bioavailability that just occurred through the process of sprouting.

Find Local Grains Here: www.coloradograinchain.com



Supporting Family Farms



Roasting Grain

Roasting grain is not something we do every day but it certainly brings out the sweet flavors of the grain. The trick is to slow roast at less than 300 F. We typically choose 250 F and keep the grain roasting for at least 30-45 minutes, spreading it out on a roasting pan. It is important to let the grain cool for 15-20 minutes after roasting before milling it. The subtle flavors are amazing and will work well for thickening soups, adding flour to pancakes, cookies, sweetbreads, or when baking slow-fermented breads with wild yeast.

Great options for roasting include: Any whole grain but especially barleys and wheats because of their sweetness. Barley contributes a nice roasted malty flavor, while roasted wheat berries remind us of Arabic cuisine, especially if combined with herbs (marjoram, oregano, thyme), spices (sumac, chilé), and seeds (sesame seeds).

Milling Grain

There are few tools essential for the home kitchen. However, having your own table-top mill is one of those pieces many home bakers could simply not live without. But mills are not just for bakers. Stone mills typically produce various ranges in coarse to fine flours, thus, a simple stone mill can easily make cracked grains used in porridge or soups or mill fine flour for a 100% whole grain cookie. While professional milling is truly an Artisan craft and requires special skills and training, at home, milling is not difficult. While some technical know-how is needed for cleaning and dressing a stone, home mills are simple to use and hold for a very long time. Many home mills also come with flakers. Thus, a combo model is a good investment.



Milling grain fresh makes the flour and product much more flavorful, nutritious, and alive. In combination, home-milled flour and wild yeast fermentation in a loaf of bread are divine. A slow fermentation process using freshly milled flour is enzymatically more active than when a leavening agent is combined with bagged flour. Freshly milled flour is more nutrient-rich, especially because the grain's essential oils from the germ are included. The flavor of freshly milled flour is also more superior and, obviously, noticeable in bread. It is best to only mill what you need in your kitchen as stone-ground flour can lose its nutritious attributes if left on the pantry shelf for too long. Finally, store your grain and flours in the fridge, freezer, or cool space (<60F). Glass jars are great and beautiful ways to store grain, flakes, and flour. They also inspire to keep whole grains an integral part of people's ways of eating!

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