**The Whole Grain Connection**

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**#39**

More Recipes for Buns Galore!

 More recipes for small whole wheat sandwich buns have been added to the recipe section at [**www.wholegrainconnection.org.**](https://r20.rs6.net/tn.jsp?f=001TKMc9VC8O4RH-Xlvb2XvDz1KZLE3-JdAirGOHyFt85n5bpWQOGf0JNWm-mgti-6jCB4s5NUHDkU-X3Kcqc0VUzH0AjByRrRasIUgq67t2xAvqiY4EX95Y9dgAWFhYjUQ4EaNoDuyJe7JFb20tH_Sz_v-cVhE381pqXEySBeZvD8=&c=Y10LWwUp1UoVMKWjT9bB89oxiU6CNgCvVdi3OYHz1_gIXSJsSG4Ojg==&ch=imBlP1IYTsPyOdNU-tu1MjUUEKPnNS-xXIiFntI2ylm0-XHJcQe1ag==)[**.**](https://r20.rs6.net/tn.jsp?f=001TKMc9VC8O4RH-Xlvb2XvDz1KZLE3-JdAirGOHyFt85n5bpWQOGf0JJpL7TjOmrUpdyudUD16UP-hIsAaDqyjLnZRlIOw5prGu4wiSBLDFMmvSztZvp9otsMwJUAs1dUH4gn-NZddhoyEzVdLQZ2P4yJeXBfYdQsD&c=Y10LWwUp1UoVMKWjT9bB89oxiU6CNgCvVdi3OYHz1_gIXSJsSG4Ojg==&ch=imBlP1IYTsPyOdNU-tu1MjUUEKPnNS-xXIiFntI2ylm0-XHJcQe1ag==) An introduction has also been added, including tips on whole wheat breadmaking techniques. The techniques mentioned are assumed in the recipe methods; they include using moist hands to handle dough and a work surface devoid of added flour. Indeed, the intention is to add all flour at the beginning of dough-making and to avoid addition of flour thereafter. This allows for all the whole grain flour in the dough to be hydrated and fermented equally by the time it reaches the oven.

New recipes are for 100% whole wheat buns with dried milk, with milk and egg, with olive oil, and with extra malt. Also added are designer bun notes and designer bun recipe examples with currants, chocolate, and spice.

For the milk and egg bread, you will notice that the egg is added after the first rise, so preventing egg spoilage and off flavors. By the time the egg is added the sourdough fermentation is well under way and likely has displaced any spoilage microorganisms. In this way too, the time for raw egg to be in raw dough is just 2 hours. However, the addition of egg complicates these otherwise very straightforward recipes. Not only is there the extra step to add the egg, but the final dough is softer and more demanding to shape. Experienced bakers would handle it well.

Substituting a portion of the whole wheat flour, say 10% with whole grain malt offers a wondrous sweet-sour change to the aroma and flavor of whole wheat bread. Enzyme active malt provides the best set of nutrients possible for sourdough microorganisms; sourdough leavening power is thus optimized. Also, it’s interesting to realize that with sourdough leavening, it is possible to use as much or as little malt as you like in whole wheat breads.

Buns galore! Xfinity and the ANOVA steam combi-oven

Further to the story about steam baking to produce soft sandwich buns. I now discover that the ANOVA combi-steam oven that I own, has been recognized as impossible to connect to the internet via the Xfinity modem that I have.  This is a relief; now I do not have to blame my own ineptness. However, the oven is relatively newly created equipment so as I see it, is very likely still in need of development. Meanwhile I’m using it frequently in manual mode to steam bake whole grain buns galore, with no need for connecting it to the internet!

Hope for development of localized organic grain systems

            On June 1 this year, USDA Secretary Vilsack announced a “**framework for shoring up the food supply chain and transforming the food system to be fairer, more competitive, more resilient**”. See Press release: June 1, 2022, # 0116.22 at [**www.usda.gov.**](https://r20.rs6.net/tn.jsp?f=001TKMc9VC8O4RH-Xlvb2XvDz1KZLE3-JdAirGOHyFt85n5bpWQOGf0JPqSEQO9hWgOJ2VZtqBnmyk9us68L7goqxx3uKL4L1FCYBgt2eYI_SxN3pAzz-QQwn-AB7lmvPnv4bGernCmxaH3i_CO9hadVsSJiNx7CWfPdF4tJfqxc3FywVPPD6Fjj2jZWiUt-Sjv9Ukd_CAyPRRMAF7igI93A_UXdXoo_xN9lZgCBwQF3bcrUbBgwqt825JOkiB1QQDvwrannEBF22fYDztgNGy4AGe27cvzygeC&c=Y10LWwUp1UoVMKWjT9bB89oxiU6CNgCvVdi3OYHz1_gIXSJsSG4Ojg==&ch=imBlP1IYTsPyOdNU-tu1MjUUEKPnNS-xXIiFntI2ylm0-XHJcQe1ag==)[**.**](https://r20.rs6.net/tn.jsp?f=001TKMc9VC8O4RH-Xlvb2XvDz1KZLE3-JdAirGOHyFt85n5bpWQOGf0JPqSEQO9hWgOsOQZj6f0yxtTmh3z4mN41Iw_NTqkFdcMNlB4YvmzQUTZQx-St8hU84hCaJRDQEdUyKnSTSAW0oY=&c=Y10LWwUp1UoVMKWjT9bB89oxiU6CNgCvVdi3OYHz1_gIXSJsSG4Ojg==&ch=imBlP1IYTsPyOdNU-tu1MjUUEKPnNS-xXIiFntI2ylm0-XHJcQe1ag==) This means that to be ready and qualified for grants we need to come together and be able to describe what is needed to localize grain storage, whole grain milling and whole grain baking. We need more grain harvesting and cleaning equipment to be available to grain farmers within a reasonable distance. For this we need to recognize the talents among neighboring farmers for maintaining and running planters and harvesters, and cleaning equipment such that they can provide these services within a region. We need local whole grain flour mills. We cannot just hope that someone else will do this, we need to do it for ourselves. Without funding such a realization has been useless, but it appears that funding will at last be available. Let’s be ready! In so doing, much more organic local grain can be grown. We can be doing our part to regenerate the soil, mitigate climate change, help to alleviate inequities in availability of truly whole grain foods and so improve the quality of life for everyone.

Keeping track of heritage grain varietal origin

Recently I purchased some purple hull-less barley. The farmer thought it was a heritage variety but had no idea whether it came originally from Egypt, Ethiopia or where? For marketing end-products using these heritage grains, we need to have a history ready for the customer. In this case it had been lost. Actually “almost lost”, because we were able to discover the practically certain origin of the seed, via the three farmers of previous generations of the seed, the last of whom could tell me that it was from Tibet and was obtained for the USDA Small Grains Collection in 1924. With this information I could find exactly the USDA accession number, and verify that it was Tibetan.

Along the way this purple barley had been given different names. In the past I have tried to emphasize the need for one consistent name but have seen this to be not within our human capabilities. So now I suggest that we do our best to carry from one generation of a heritage grain to the next the USDA accession number, regardless of the marketing name we use. In this way we shall always have access to the original seed (even if only 5 grams) and notes on the origin in the Old World, and so a story for the customer.

Dried orange peel saved Akmolinka wheat from moths!

June 2022. Just for the record.

In 2019 I bought 25 pounds of locally grown Akmolinka wheat, in a plastic bucket with tight fitting lid. It was the third or fourth time I had made such a purchase and I was enjoying milling and baking with it. The bread was light in color and mild in flavor. Akmolinka is spectacular in the field because many of the bearded heads are branched, and it’s reasonably prolific and drought tolerant as expected for a turgidum wheat related to durum.

Anyway, when I brought the last bucket home from the farmer’s market, and opened it, out flew moths! In horror that they would infest my condo I slapped the lid back on and set the bucket aside. Luckily the lid was tightly sealing.

Around that time, I was also thinking how to make use of the excessive amount of beautiful orange peel I was generating as I ate my way through 10-pound bags of organic oranges, also bought from the farmer’s market. I knew that orange peel was a wonderful flavoring, as is orange zest, and that orange oil in the peel was a potent insecticide. So, I cut the orange peel into small pieces and dried it in quantity, on a home style food dehydrator.

Next step therefore was to fill a cotton bag (~ 6 x 8 inches) with this dried orange peel and to lay it on top of the grain in the moth contaminated bucket. Truth is, I had little faith in the orange peel!

Three years later, that is last week, I decided it was time to get rid of the offending bucket of grain. I took it outside, closed the door behind me and opened the bucket ready to empty it. To my utter amazement, when I looked inside, I saw zero moths, and when I lifted the bag of dried orange peel, no moths or insect debris! Can only think that the infestation was caught very early, and that the tight seal on the bucket trapped an insecticidal amount of the orange oil, enough to kill the light infestation before it did any real damage. In the first scoop of grain taken from the bucket, I did notice some small, narrow brown *seeds*. In retrospect perhaps those *seeds* were the non-viable pupae formed from the moth larvae; they were absent from scoops of grain taken later and further down in the bucket. From now on, as a precaution, bags of dried orange peel will be placed in buckets of grain that I suspect may be contaminated with insects. *This is a much cleaner method than food grade diatomaceous earth around a bag inside a container*. I should also have mentioned that although the grain is nicely scented with orange, the flavor is not evident in breads made with it.