

Kneading Conference West 2013.

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Putting the GOOD in Buns: Hamburger Buns that Look Good, Taste Good, and Nourish

A major portion of the grains eaten any given day are likely to come in the form of hamburger buns or hot dog buns. What if this favorite American food could be more nourishing *and* more delicious? That's the challenge: using the flavorsome locally grown and milled flours available in Oregon and Washington to make a wholesome and more delicious bun.

When asked to if I would like to do this class, I was excited about the task, at the bakery we make really good hamburger buns that are delicious but are 100% white flour.

I pondered creating a new formula, from scratch, but as I wrapped my head around this idea of making buns that could be more healthful, it struck me that, the simplest way to add more fibre, nutrition and flavour is to take your already great bun formula, and trade out white for whole grain flours. What could be easier for the home baker, or in your bakery/shop to start integrating some alternative flours, into your tried and true formulas?

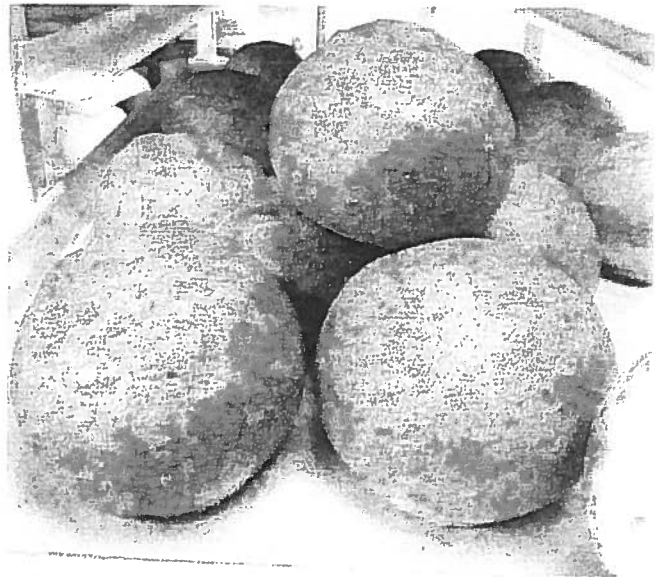
What I hope to do today, is to show you some simple techniques to do this at home, and take away any fear that integrating whole wheat or other whole grain flours, will compromise quality.

You will go home with two formulas that can be made 100% white or anywhere from 40-70% whole grain.

These formulas are ones we use in the bakery currently; you will see that once you start to add whole wheat, grain soakers, you create a totally new bun which now has more nutritional value and new flavour profiles that is still reliable and predictable.

The essence of this class is for you to go home and experiment, do not fear the whole grain embrace it with confidence, start with a low percent switch and then push it far as you feel comfortable. Trust me, if your core formula is good, it can only get better.

I'll show you a simple mix using some of the techniques listed below, in addition, we will make a batch of buns for the dinner that you can help to shape. This formula will be one we use at the bakery, but with 50 percent of the white flour switched out with stoneground whole wheat from Camas Country Mill in Oregon, plus a simple grain soaker.



Simple techniques:

1. **Simple trading out of flours:** the easiest way that actually yields quite surprising results is to simply trade out a portion of your white flour for whole wheat flour, preferably stone ground. Stone ground is important as it contains 100% of the kernel so all the nutritional value is in the flour compared to roller milled whole wheat, which is stripped down/fully extracted to white flour, then has bran blended back in. start at 50%, at this ratio you will not have to make any other formula adjustments to achieve a great bun.
2. **Additions:** Whole chopped or cracked grains take whole grain blend and soak it for 1-2 hours (or overnight in the fridge) you can add this once the dough is fully mixed as an incorporation. This adds texture, flavour and nutritional punch. Flax seeds, these can be soaked whole and incorporated like the grain soaker, or ground up and added as an ingredient. Flax is good for you soaking or grinding make the benefit of this seed easier to assimilate/digest. Soaking the grains or seeds has two effects, softening the grains, so they can be more easily incorporated without compromising gluten structure, it also, activates enzyme activity which helps with flavour. Its important if you are going to soak overnight to control that by either refrigerating your soaker or adding a pinch of salt, to slow down the process.
3. **Sweeteners:** we all know that good hamburger buns have a hint of sweetness. Look for unrefined sugars; get rid of your white sugar! Honey, molasses and raisin juice make great sweeteners. With the last 3 , formula adjustments would be necessary to your hydration, if switching from sugar.
4. **Pre-ferments:** even though your recipe is straight dough, you can play around with fermenting part of your whole grain flour the morning/night before to extract more complex flavours into your product. **Poolish** would be the easiest for the home baker. Take a portion of your whole grain flour and an equal amount of your liquid. Add a portion of your yeast. Ferment for 6-8 hrs room temp, or overnight in your fridge for more complex acetic flavour profiles.

Now you add this as an ingredient, remember to only add the difference of flour and hydration to your final mix.

Make a starter: there is a good class this weekend about starters for the home baker, I've included a simple way to create one at home. Having this to use on a regular basis really does add a depth of flavour and potential health benefit to your product, early studies suggest that naturally fermented, high in whole grain products are easier to digest and perhaps gain you more nutritional benefits.

Another way to add depth of flavour is to ferment your dough overnight at cool temperatures. You would cut back on a small percent of yeast, and room temp ferment. This style can be good for your production schedule; it will also lend itself to more depth of flavours from the cold slow ferment. For doughs that have butter, it makes for easier forming, final proof will be slower but you should still see excellent results from the oven.

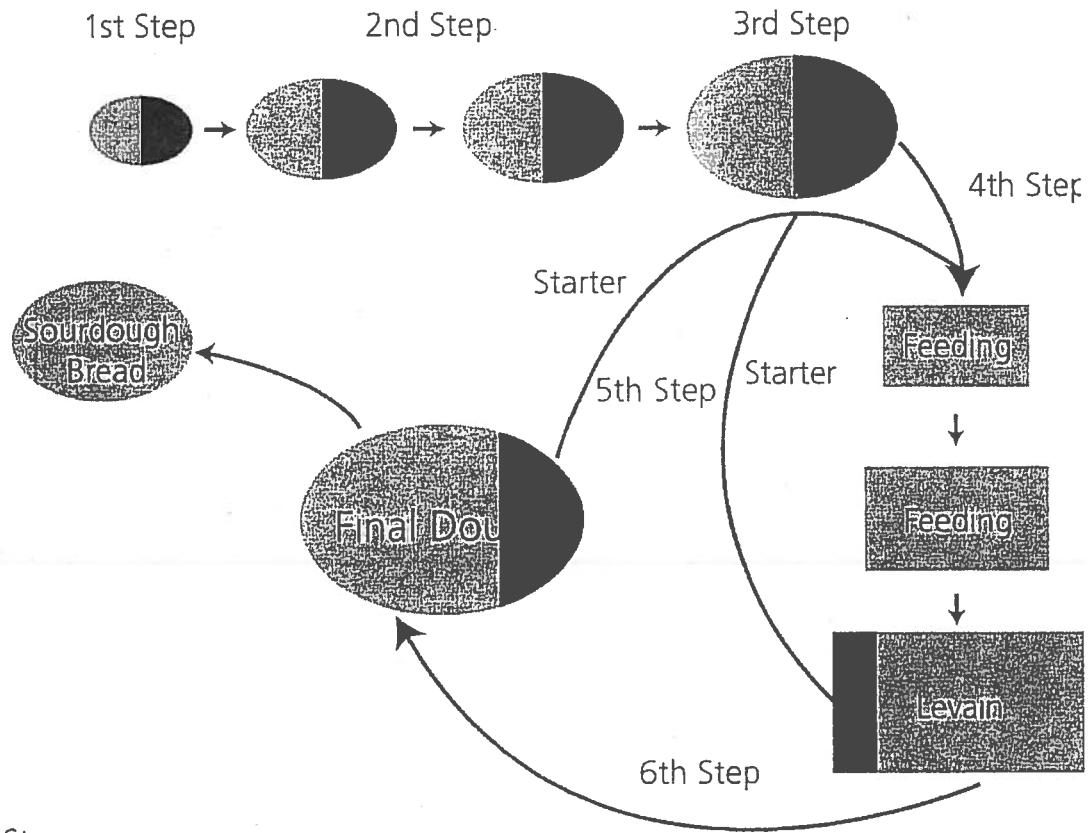
Starting the Starter

The following schedule is a guide for starting a starter from scratch. During this process the starter should be held at 80°F to encourage fermentation. A mature culture will be able to multiply 3 times in volume in 8-10 hours.

| Schedule | Flour | Water | Starter | Time Before Next Feeding |
|--------------|--------------------------------------|-------|---------|--------------------------|
| *Day One AM | 1 lb Whole Wheat 1 lb Bread Flour | 2 lbs | | 24 hours |
| Day Two AM | 1 lb Bread Flour | 1 lb | 1 lb | 6-8 hours |
| Day Two PM | 1 lb Bread Flour | 1 lb | 1 lb | 16 hours |
| Day Three AM | 1 lb Bread Flour | 1 lb | 1 lb | 6-8 hours |
| Day Three PM | 1 lb Bread Flour | 1 lb | 1 lb | 16 hours |
| Day Four AM | 1 lb Bread Flour | 1 lb | 1 lb | 6-8 hours |
| Day Four PM | 1 lb Bread Flour | 1 lb | 14 oz | 16 hours |
| Day Five AM | 1 lb Bread Flour | 1 lb | 14 oz | 6-8 hours |
| Day Five PM | 1 lb Bread Flour | 1 lb | 14 oz | 16 hours |

*Add ½ oz of malt to the first feeding to help initiate fermentation.

Diagram of the Sourdough Process



Steps

1. Creating a culture
2. Elaborating the culture
3. Preparing the culture for use when it is sufficiently strong and active. At this stage, the culture is called a starter.
4. Feeding the starter. After one or more feedings, the culture is called a feeding. After the final feeding before incorporation into the final dough, the culture is called a levain.
5. Perpetuating the culture. A piece of dough is saved from either 1) the levain, or 2) the final dough. At this stage, the culture is again called the starter
6. Incorporating the levain into a final dough and making bread.

whole wheat buttermilk rolls

| | | Grams | Total |
|--------------------|-------|---------|--------|
| Loaf Bun | 1 | 793.780 | 793.78 |
| | 12 | 113.0 | 1356 |
| | Total | | 2149.8 |
| Total dough | | 2149.8 | |

| | |
|---------------|-----|
| Extra % | 0.0 |
| Extra (dough) | 0.0 |

| | 1.86 | 844.67 | < total flour | |
|-------------------|--------|--------|---------------|-----------------------------|
| | Total | | | |
| | % | Grams | Lbs | Totals for grain soaker lbs |
| White Flour | 50.00 | 422.3 | 0.93 | grain mix water |
| Whole Wheat Flour | 50.00 | 422.3 | 0.93 | 0.09 0.09 |
| Sour Starter | 46.43 | 392.2 | 0.86 | |
| potato flour | 6.50 | 54.9 | 0.12 | |
| 6 grain soaker | 10.00 | 84.5 | 0.19 | |
| buttermilk | 66.79 | 564.2 | 1.24 | |
| Sugar | 6.50 | 54.9 | 0.12 | |
| Instant Dry yeast | 0.54 | 4.6 | 0.01 | |
| Salt | 2.50 | 21.1 | 0.05 | |
| Butter | 15.25 | 128.8 | 0.28 | |
| Total | 254.51 | 2149.8 | 4.739478384 | |
| | | 2149.8 | 4.739 | |

Preferment:
Grain Soaker
Final dough mixing

Sour Starter Should be ripe; fed at least 6 hours prior to mixing dough
Combine water and grain mix. Soak for 1-2 hours or overnight in the fridge.

Improved Mix: **Speed 1** 6 minutes

Speed 2 4-5 minutes Until there is good gluten development

Add butter in stages, until it is fully incorporated and the dough pulls back together

Dough should have nice extensibility and some elasticity.

Add grain mix, on speed 1 incorporate only.

Fermentation

60 -90 minutes

Target dough temp 76-78 °

Dividing/shaping

Divide and shape Buns:

4 oz(113.4 g)

Proofing

Proof at room temp for 2-3 hours.

Baking
Steam

450

Buns: 13-15 minutes

3-4 seconds(if you have the option)

If no steam: egg wash before loading into the oven.

Notes:

Brioche with 60% Whole Wheat Flour

| Loaf | | Grams | Total | Extra % | 0.0 | |
|---------------------------|---------------|---------------|-------------------|---------------------------|---------------|-----------------|
| | 1 | 793.780 | 793.78 | Extra (dough) | 0.0 | |
| Bun | 12 | 113.4 | 1360.8 | | | |
| | | Total | 2154.6 | | | |
| Total dough | 2154.6 | | | Totals for Starter | | |
| | | | | flour | water | |
| Prefermented Flour | 4.0% | | | 39.94 | 59.90 | |
| | | 998.42 | < total flour | | | |
| | Total | | | Final dough | | |
| | % | Grams | | % | Grams | Lbs |
| White Flour | 40 | 399.4 | White Flour | 56 | 359.4 | 0.792 |
| Whole Wheat Flour | 60 | 599.0 | Whole Wheat Flour | 40 | 599.0 | 1.321 |
| Sour Starter | 10 | 99.8 | Starter | 10 | 99.8 | 0.220 |
| Water | 40.0 | 399.4 | Water | 34.0 | 339.5 | 0.748 |
| Milk | 25.0 | 249.6 | Milk | 25.0 | 249.6 | 0.550 |
| Eggs | 12.0 | 119.8 | eggs | 12.0 | 119.8 | 0.264 |
| Sugar | 10 | 99.8 | sugar | 10 | 99.8 | 0.220 |
| Instant Dry yeast | 0.4 | 4.0 | Instant Dry yeast | 0.4 | 4.0 | 0.009 |
| Salt | 2.4 | 24.0 | Salt | 2.4 | 24.0 | 0.053 |
| Butter | 16 | 159.7 | Butter | 16 | 159.7 | 0.352 |
| Total | 215.8 | 2154.6 | Total | 205.8 | 2054.7 | 4.529947 |
| | | 2154.6 | | | lbs | 4.750 |

Preferment:

Sour Starter Should be ripe; fed at least 6 hours prior to mixing dough

Final dough mixing

Improved Mix: **Speed 1** 6 minutes
Speed 2 4-5 minutes Until there is good gluten development
 Add butter in stages, until it is fully incorporated and the dough pulls back together
 Dough should have nice extensibility and some elasticity.

Fermentation

2 Hours at room temp Then put in the walk-in overnight
 8-10 hours at 45°

Dividing/shaping

Divide and shape Buns: 4 oz(113.4 g)
 Form loaves 1.75# (793.78g)

Proofing

Proof at room temp for 2-3 hours.

Baking

375° Loaves: 25-30 minutes Buns: 13-15 minutes

Steam

3-4 seconds(if you have the option)
 If no steam: egg wash before loading into the oven.

Notes: