

Gluten as a Meat Substitute

Taken from *The Gluten Book* by Le Artta Moulton

“Gluten is the protein part of the wheat. It contains two principal proteins—glutenin and gliadin. It is the gliadin in the gluten that allows the gluten to form into an elastic-like quality and eliminate the starch and bran. Gluten is listed as a principal source of protein along with eggs, milk, cheese, lean meat, fish, soybeans, and peanuts.

Making Raw Gluten

There are several ways to pound the flour and water mixture in order to work up the gluten.

Using an Electric Bread Mixer

In the mixer put 14 c. whole wheat flour

7 c. cool water (a few cups at a time)

Knead for 10 min with the kneading arm. When all the flour is added and moistened, turn on low speed and knead 5 min.

Using Portable Electric Beaters

Put in a large bowl:

9 c. whole wheat flour

6 c. water (usually 3 cups more flour than water)

Mix 5 minutes at medium speed. Let beaters rest, then mix another 5-10 min. Gluten has developed when the dough starts to work up the beaters.

Hand Method

In a mixing bowl

7 c. whole wheat flour

3 c. cool water

Knead with hands. Place the dough on a floured surface and pound with fist or rubber hammer or knead well for 15-20 min. For best results, pound the dough ball until flat, and continue pounding, running occasionally for remaining time.

Washing the Dough

Whichever way you use, after the dough has been pounded, you have to wash the dough to remove the bran and starch. Cover the dough with water in the bowl in which you have mixed the gluten. (In fact, I used to let my dough sit in the water overnight.) Work dough with your hands to loosen it a bit. **IF YOU WANT TO SAVE THE BRAN:** Place a plate or pie tin under a plastic colander. Place as much dough as you feel you can work with in the colander and let the water run over the dough. If the water is too strong, it will wash away the bran in the pie tin. Work the dough with your hands until it becomes a tough, elastic-like texture and the water from the gluten comes out fairly clear. You will see specks of bran. Don't expect to get it out completely.

If the gluten will not stay together and falls through the colander, then a) the wheat may be too soft; b) you didn't pound enough or long enough; c) the dough was TOO stiff if doing it by hand and needs more pounding. Letting it sit in water overnight will help fix this last problem.

Saving the Bran

As the pie tin gets filled with bran, you can pour off excess water and store the bran in the refrigerator. You can use bran for cold cereal, crackers, breads, cakes, cookies, pancakes, etc.

Saving the Starch Water

If you soak the dough overnight, you will find the water will be milky in the morning. You can pour this liquid in a jar. You can use starch water for gravies, stew, soup, desserts, baby's bath, liquid in bread, hand lotion, water for plants, reconstituting powdered milk.

Cooking the Gluten (for a ground meat texture)

Place raw gluten on lightly oiled or greased cookie sheet. Push from the center out and stretch on the pan until gluten is fairly even and about ½" thick. (Letting it rest after washing will make this easier)

Preheat oven to 350° and bake for 15 min. It will bubble up somewhat. Twist a fork in the bubbles and thick areas so as to let out the steam and cook through better. Cook another 15 min. or until it springs back when you press on it.

When you take it out of the oven, the texture will be crisp on top and soft in the middle. By folding the sheet of baked gluten over once or twice, or by folding a placing in plastic bag a few minutes, the steam will adjust the texture evenly. If the gluten has baked too long and is very hard, sprinkle water on it first or quickly dip in water.

When there are no crisp areas, break gluten into large pieces and put through food processor or meat grinder on medium disk. You can even shred it on a cheese grater. You will now have a ground texture as in ground beef.

Uses: as a substitute for ground beef (soups, casseroles, meat pies, tacos, enchiladas, pizza
In granola, snacks, pet food.

The rest of her book is all about recipes that use gluten