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# The Sourdough Difference 01

## *The difference between today's bread and bread from the past, and more importantly, how we can avoid wheat related allergies and diseases.*

*The relentless consumption of gluten-containing products using either wheat, rye, or spelt grains, especially breads or buns made without any natural yeast-bacterial (lactic acid) fermentation (traditional sourdough culture), is a major contributing factor in modern allergies, gluten intolerances, digestive disorders and diseases.*

With innumerable cultural backgrounds for individuals today, there are different understandings of what is meant and understood by 'Sourdough Bread'. For some, this is exclusively rye bread, for others it is the typical French or San Francisco white wheat sourdough bread most common in North America. The Kaslo Sourdough Bakery has focused on reviving the traditional whole grain wheat sourdough bread our ancestors relied on for daily nutrition. This type of bread has virtually disappeared today. If you are at all health conscious, this should be of great concern as I will point out the implications and consequences this has had for humans as a species. All in all, our bakery is a Sourdough bakery; we bake everything, both wheat and rye sourdough breads, with a traditional sourdough starter culture, and you'll find out why this is so important for your well being as you read on.

***The Kaslo Sourdough Bakery has made it its mission to resurrect this Traditional Whole Grain Sourdough Bread to its rightful place in our daily diet through skillfully baking it and educating people about its contributions to a healthy lifestyle.***

There is significant evidence that the accumulative changes over the past 120 years in the way we eat certain basic foods has had fundamental health consequences for everyone. The widespread allergy problems associated with the ingestion of wheat products is reaching epidemic proportions. Who doesn't know anyone that has a sensitivity, allergy or even disease from wheat? Everyone has a different threshold to an allergen; repetitive exposures to irritants manifest themselves in the three eventual stages of sensitivity, allergies and in the most extreme cases, disease. For some the initial two stages can be masked in such a way that no symptoms show until the third stage. Experts estimate that over 50 % of North Americans are already at one stage or another when it comes to wheat related allergies.

For the past 14 years it has been my central focus to explore every aspect of wheat production and the foods made from it. The most important factor is that our ancestors prepared gluten grains (wheat, rye, spelt, etc.) by first grinding, then naturally fermenting it prior baking and consuming it as Sourdough Bread. This process went hand in hand with the discovery of systematic agriculture 10 000 years ago and was practiced by numerous cultures throughout the ages, from the Sumerians, Egyptians, Greeks, and Europeans, to the Pioneers of early North America. For these thousands of years prior to the late 1800's, no one had any problems with digesting wheat. Only because we have fundamental changes in how we process and prepare gluten grains in recent times are we seeing a huge increase in intolerances to these grains. Modern breads are largely yeast-based fermented breads, which are all deficient of the most vital part necessary to be able to properly digest them, namely natural sourdough fermentation. These new products and production methods were never part of our historical diet, and we can attribute many modern disorders to the improper preparation of mainly wheat, but other grains as well.

The essential part of digesting grains, especially gluten containing grains, is to provide a viable bacterial culture in the fermentation process. This bacterium (lactic acid) starts the breakdown of the protein/gluten before it is ingested and further continues the process as it makes its way through the human digestive system. Whenever wheat products are eaten without these naturally occurring bacteria already present and at work, our digestive system becomes overburdened, which eventually leads to digestive problems and subsequent related illnesses. The central part of the human digestive system is the bacterial flora in our intestines, which is said to be between 3-5 pounds alone. Natural Sourdough Bacteria is identical to the type of bacteria present in our colon, which is why eating bread made with it has a probiotic effect on our digestive system and well-being. This helps maintain intestinal health, strengthens the immune system, neutralizes free radicals, and many other health promoting properties. It allows for good absorption of minerals and vitamins, the basic building blocks of good wellbeing. Unfortunately, there are countless numbers of wheat-containing products besides bread, which do not have the vital sourdough bacterial culture necessary for proper digestion. Examples range from delectable pastries, noodles, cereals, pizza, sauces, and much more.

The fact is that we literally do not have the stomach suitable for digesting raw, unfermented grains, as ours is a one stage digestive system. On the other hand, ruminants like cows, elk, or deer chew their *cud* – food that is regurgitated and chewed more than once. This is their way of making the grains 'preferment' (as the bacterial culture does for us) the raw wheat in their four chambered stomachs and therefore, digestible. Our ancestors knew this quite well, probably by trial and error. With the discovery of systematic agricultural practices came fermenting techniques that allowed these grain crops to become compatible with our digestive systems, and gain position as our primary food source. This assured a stable food which allowed mankind to ascend the ladder of prosperity. The proverbial 'Staff of Life' is our daily (sourdough) bread.

The turning point from the traditional wheat sourdough bread occurred with the discovery of microbes and the new scientific field of microbiology in the mid to late 1800's. Microscopes allowed insight into the unseen world of fermentation and the isolation of the yeast cell quickly led to the manufacture of pure yeast monocultures, and the invention of baker's yeast. The natural bacterial culture (lactic acid) present in traditional sourdough was done away with. This eased the work of the baker considerably and allowed for uniform bread products and the invention of many subsequent baking products.

In the baking industry as well as the dairy, the raw ingredients – milk and flour – are initially sterilized and/or homogenized to control the natural occurring microorganisms, which interfere with subsequent modern food processing. This eliminates or deactivates any unwanted fermentations and therefore it becomes more controllable/predictable, which is desirable in our mechanized modern world. Sadly, however, these processes alter and eliminate the essential microbial flora necessary to make grains digestible for human consumption. There are very, very few bakeries today that have either the know-how or the time needed to devote to or produce traditional sourdough bread. With the resurgence of artisan type breads, the baking industry has invented all kinds of new breads, from bread mixes, frozen bake-off style, and oven fresh, etc., but all lack that essential part that for thousands of years mystified our ancestors and assured our health. For many people the sometimes acrid sour taste of these

newly invented breads, especially the San Francisco style, has had detrimental effects and stifled the rebirth of authentic sourdough bread.

For most people, the vast number, complex nature, and diverse interaction and influence of these microorganisms in a natural sourdough culture, is hardly realized. It can be compared to billions of people dumped into a bucket. Will there be diversity, rivalry, or survival of the fittest? Let your imagination be the limit and you will start to appreciate why this has always mystified us in the past and will continue to do so in the foreseeable future. It is similar to the good, the bad and the ugly, which the Sourdough Baker is the tamer or trainer in making sure that the right ones keep the upper hand. Looking at baking in this way opens up a whole new frontier. I have tried to explore different aspects of this art, it makes baking this type of bread much more challenging and rewarding. The variables are limitless and therefore the end result (sourdough bread) is as unique as our planet in the universe.

The breads produced by Kaslo Sourdough Bakery are living proof that the sourdough bread our ancestors ate was not sour but flavourful with a hearty taste and crust. ***Straight yeast-dough breads, which make up the majority of breads today, are made without the essential bacterial/enzyme culture necessary for digesting gluten containing breads.*** Yeast raised bread has become the way to bake modern bread. With the rapid leaps in technology following the steam engine, which rung in the industrial revolution, it took only a short time for mega factories to be producing millions of pounds of yeast and bread, traditional sourdough breads were therefore doomed. Steady population growth, convenience, a symbol of prosperity, controllability of dough fermentation and a uniform bread ('tin bread'- square sliced loaves instead of traditionally hand shaped and peeled hearth baked bread), signified the triumph of modern man/woman over the natural world. The consequential outcome of eliminating traditional natural ways of baking bread is only now surfacing as our health is deteriorating. The accumulative effects are manifesting themselves in all kinds of wheat related allergy symptoms, with all gluten containing grains as well as dairy products. We can use our high technology age to our advantage if we start to recognize the origin of our problems. Never in history has mankind been as conscious of itself as at this time. With every new scientific discovery the complexity of life itself and the place we fill in this natural world has never been as recognized until now. The time to analyze and readjust past mistakes is now.

Another big contributing factor was the invention of the roller mill at the beginning of the 1900's. Within a short period of time it replaced all wind and water powered natural stone mills and created the mega flour mills. Not only did these new mills grind the flour finer, but it also allowed the wheat germ and the bran to be separated from the flour, thereby increasing the storability of the flour for a much longer time. The oxidization of the fats present in the wheat germ made the freshly ground flour storable for only a short period of time. Traditional millers and bakers had to work closely together with the flour mill never too far from the bakery, since transportation was also an issue back then. With the new milling technology, flour became storable for a much longer period of time, even up to a year without it becoming rancid. With the disappearance of the old flour mills, so too did the nutritious part of the wheat kernel, the germ, disappear. The natural ratio changed a wholesome food, through modern processing from a health complex carbohydrate to a simple carbohydrate, with refined white flour. The health consequences have emerged and are progressing, and as warning signals, they have been sounded for some time. The time has come to listen and act.

As cities began to grow, the problem of waste management and providing potable water also became a major problem; industrialization has its price. Underground sewer and water systems were installed, but epidemics because of unfit drinking water still prevailed until the invention of chlorination of the drinking water, which started in the 1930's. Within 20 years most major cities in North America were using chlorination, and today, chlorination is the main disinfectant used to sterilize drinking water. This eliminated epidemics but left the same rusty, slimy old pipes underground. With this awareness increasing, the bottled water industry grew exponentially. Water is a major constituent of bread. The question is now, "How healthy is the water from the tap for food manufacturing?" It may be sterilized to avoid epidemics, but with it, its vitality to give life.

Up until the end of the 1800's, bakers were busy baking sourdough bread, and sourdough buns and rolls were treats. Sifted white flour was precious and reserved for the upper class; whole grain flour was the food of the peasant. People were capable of living on bread and water for an extended period of time.

Combined with diverse modern additives regularly employed in these newly invented wheat products that are mostly based on refined white flour, inferior water, no natural sourdough culture, and high in fats and sugar content, it is no wonder we are experiencing wide spread allergic reactions. It is vitally important to return to our traditional ways of eating wheat related products, and especially bread needs to be made with a viable bacterial sourdough culture again. We cannot afford to loose wheat as one of our staple foods.. The Prairies grow the grains for the cities, and without wheat, there would quickly be a world wide famine. All the changes over the past 100 years have accumulated into the dilemma we are facing today. Industry is relentlessly inventing further products and techniques that worsen the problems instead of remedying them since they don't want to acknowledge or seem to be unaware of the problems their products create.

Having realized these connections in my studies, my resolution has solidified in providing only the best bread possible in today's world. From the start fourteen years ago, I have baked traditional sourdough bread and focused on it, just as the traditional sourdough baker of the past. Two years ago the Kaslo Sourdough Bakery acquired a used natural stone mill, originally built in Tyrol with stones made from a quarry that the Romans already used for making their mill stones. Since then, we include freshly stone ground flour in all of our breads. Last year we also built a gravity fed water system that allows us to use pristine natural mountain spring water for all of our baking. The source is located in a rugged wilderness area where no one lives and the analysis of the water proved it to be one of the finest quality water this planet has to offer.

There are a number of other important aspects in regard to our commitment toward authentic bread from the past. From the very beginning, all of our breads had 25% organic content. In the past few years we have moved more and more towards all organic. We have let ourselves be guided by our regional customer base in this regards. Our new export line (outside of our local area) is all 100% organic. Organic commitment for us signifies respect of nature as well as living healthier. All of our breads are hearth baked in a stone deck oven.

Our bread is baked with simple but quality ingredients that emphasize traditional values and principals in our modern world. I invite you to try a 'Taste of the Past'. You might be surprised how good it can taste. Over the years, I've witnessed many an occasion where the memory buried in our tastes buds, especially in unbiased kids, was reawakened by the first bite they took of our bread.

For further information visit our website at [www.microsour.com](http://www.microsour.com).



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P.S. If you read this far, and care for yourself, family and friends, pass this letter on. We all need to care for each other. Thank you and 'Bon Appetit'.