What are some examples of "modern wheat free" grains?

Emmer
• This simple grass predates all wheat. It is one of the most primitive grains and the first grass cultivated by man. It delivers a unique robust nutty flavour.

Rye
• A flavourful grain which became the staple of the Northern Europe diet. There are not many opportunities to enjoy rye that isn't blended with modern wheat, so most people have little exposure to pure rye gluten (secalin) on its own.

Kamut®
• This is a registered trademark for an ancient wheat that was found in an Egyptian tomb. The trademark is a guarantee of the pure lineage and the fact that it and its ancestory were all grown organically.

Spelt
• This ancient grain variety was largely left alone during humanity's quest to improve yields. What saved it was the fact that it is a hulled grain and proved more expensive to process. Spelt has a different gluten structure relative to conventional wheat.

Red Fife Heritage Wheat
• Canada's oldest wheat. Thanks to passionate seed savers, this pure variety is essentially the same as it was in the 1800's before hybridization was commonplace.

All of these grains contain gluten and are not acceptable for those suffering from Celiac Disease or severe wheat allergies. Many people who thought they had to eat gluten free are able to tolerate these grains

Does this sound familiar?

After eating food containing wheat you develop symptoms such as fatigue, skin issues or minor digestive discomfort.

Your doctor suggests you remove gluten from your diet. You notice an improvement and conclude that you have some sort of sensitivity to gluten.

At the same time you notice that "gluten free" is EVERYWHERE.

Do you ever wonder why after 10,000 years of eating wheat, you and many other North Americans have all developed a gluten sensitivity at essentially the same time?

One of two things happened:

the actual wheat changed or
millions of people did (at the same time)

Open the pamphlet to learn more about how humans have fundamentally changed wheat, changed the protein structure (the gluten) in wheat to the point that many people have difficulty digesting it. More importantly learn about grains that predate hybridization that may work for you.

For many of our customers gluten is not the enemy. "Modern wheat" and hybridized grains are.†

Gluten *and* "Modern Wheat"

Many people are realizing gluten is not the problem and a "gluten free" diet is not the solution.

What is gluten and why is it such a trendy dietary concern?

What has changed?

True Grain Bread

fresh • local • organic • handcrafted

What is gluten?

Gluten is a protein. Specifically, what we refer to as "gluten" is a specific combination of two types of proteins (prolamins and glutelins) found in wheat (including spelt and Kamut®), rye, and barley.

Is all gluten the same?

No. "Gluten" is a very specific sequence of amino acids, so this varies from grain to grain. It even varies within a type of grain, such as wheat. In wheat, the prolamin is called gliadin, in rye it is called secalin and in barley it is called hordein.

Gluten free grains don't have these?

Interestingly, rice, corn, buckwheat, teff, and millet **ALL** have prolamins and glutelins. The only difference is the sequence the amino acids occur. These sequences aren't considered to be gluten. These grains typically don't cause a reaction in gluten sensitive people. Only the specific sequence found in wheat (including spelt and Kamut®), rye, and barley are considered to be "gluten".

Why is gluten problematic?

The Canadian Celiac Association estimates that 1 in 133 Canadians suffer from Celiac Disease. (0.8 of 1%). They cannot eat gluten as described above in any form. A person either suffers from Celiac disease or they do not. A biopsy provides a definitive diagnosis. Now simple blood screening tests are becoming available to help with the process.**

There are others who suffer from what is best described as "non-celiac gluten sensitivity". In these individuals the biopsy is normal and there is no damage to the intestine. The phenomenon is being researched and there is no diagnostic test available**. These people number in the millions and are driving the gluten free fad.

** Canadian Celiac Association website

What is "modern wheat"?

Modern wheat refers to the species of wheat that is consumed today. It is considerably different than what was grown by earlier generations. It is the result of hybridization of earlier species. It is prevalent in most wheat containing food because it is cheap and plentiful.

What is hybridization?

Hybridization is the act of interbreeding different species or varieties of animals or plants. It is done to increase the positive attributes and breed out the negative attributes. In the case of wheat, a lot of hybridization has occurred since the 1940's. The motivating factors:

1. To shorten the growing time and lessen the risk of crop loss as a result of early snowfall.
2. To increase yield per acre by dwarfing the plant to strengthen the trunk to enable the plant to support an increased amount of wheat berries per plant.
3. To breed out plant disease such as rust which was problematic for early varieties.

What is the problem? that sounds like progress.

We have learned that when two species of grain are hybridized up to 5% of the protein (gluten) found in the offspring do not exist in either parent.*

Basically, humans have engineered and created new wheat proteins. As a result, there are an increasing number of people who cannot digest "modern wheat" protein.

* Song X, Ni Zi Yao Y et al. "Identification of differently expressed proteins between hybrid and parents in wheat" , Theor Appl Genet 2009 Jan; 118(2) 213-25

So what does it all mean?

If wheat intolerence and wheat allergies are related to the protein (see gluten)...

and

Humans have engineered and changed the fundamental protein sequence of modern wheat through countless hybridizations...

then

There is the potential opportunity for ***some*** people who experience "non celiac gluten sensitivity" to enjoy gluten containing grains that pre date hybridization†.

Is this a solution for everyone?

"Non Celiac gluten sensitivity" is not very well understood and no diagnosis exists. As a result people are left to self diagnose. Your body will let you know which grain and protein sequence are problematic with some experimentation.

What we DO know is bread made with ancient or heritage grains are an effective solution for our customers who suffer from modern wheat sensitivity.†

† It is important to note that we are not referring to the estimated 1% of the population suffering from Celiac Disease. People with Celiac Disease cannot eat any form of gluten whether modern wheat or ancient grain.

We are not doctors. We recommend consulting a physician and discussing different options before experimenting.