

Spelt Facts

"Spelt is a subspecies of wheat. The genus-species of modern bread wheat is simply 'Triticum aestivum.' Spelt wheat is a subspecies belonging to 'Triticum aestivum speltoides.' Thus, there is no basis to say spelt is different from 'wheat.'

The protein and peptides in spelt are essentially identical to those in modern bread wheat; only the amounts are slightly different. Protein sequences known to be toxic to individuals with celiac disease have been identified at the gene level in spelt wheat." according to Scott Bean Ph.D., Research Chemist for the USDA-ARS in Manhattan, KS.

'Gluten' is the inclusive term for a complex mixture of storage protein fractions found in grains. There are more than 50 different protein components in hexaploid wheat. When an individual with celiac disease becomes exposed to specific amino acid sequences of some storage proteins, the immune system is stimulated to attack the body. All members of the Triticum family contain the amino acid sequences.

The two major wheat species used in food production are bread wheat and durum wheat. However, other tritiums were cultivated and consumed historically and are still marketed today. They include spelt, emmer, and einkorn.

A, B and D genomes of cultivated wheat are derived from related wild grass species of the genera Triticum and Aegilops and therefore encode the related proteins. Consequently, it is not valid to expect any cultivated or wild wheat species to be nontoxic to those suffering from celiac disease despite claims to the contrary.*

Donald D. Kasarda and Renato D'Ovidio authored an article detailing the subject of spelt in 1999. The article is "Deduced Amino Acid Sequence of an a-Gliadin Gene from Spelt Wheat Includes Sequences Active in Celiac Disease" Cereal Chemistry, 1999, 76:548-551.

1. The universal recommendation from medical professionals and celiac support organizations is to eliminate ALL forms of wheat from the diet of individuals with celiac disease.
2. The members of the Triticum family do not contain the same percentage of the storage proteins. A reduced level of 'gluten' in spelt may not produce any visible symptoms in some celiac patients, but ingestion of those specific amino acids can still produce damage.
3. The only known treatment for celiac disease is a diet free of wheat, barley, rye, their crosses and derivatives as well as oats to a lesser extent. Regular medical visits and periodic lab tests help monitor the health of an individual with celiac disease.

Common Name	Scientific Name	Genomes		
Wheat (bread)	Triticum aestivum	A	B	D
Durum (pasta) wheat	Triticum turgidum var durum	A	B	
Spelt	Triticum aestivum var spelta	AA	BB	DD
Emmer	Triticum turgidum var diccum	AA	BB	
Kamut	Triticum turgidum, ssp. turanicum	AA	BB	

*Michael N. Marsh, MD, DSc, FRCP, Ed. *Celiac Disease Methods and Protocols*, 2000. Pp 55-57. Humana Press, ISBN 0-89603-650-2