The history of the earth and the soil

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Milling is important to developing countries because grains in their raw whole form cannot be properly digested by humans, grains need grinding, cracking, flaking, popping or puffing before eating.

Of course looking at a whole grain in your hand it gives all the appearance of being dead or inert, whereas the exact opposite is the truth. A study under the microscope reveals the intricate composition of a grain as a living thing with intricate in-built survival mechanisms.

A grain has evolved to survive the seasons so it can germinate and grow again to continue its species. Indeed I spent the early part of my farming career trying to variously overcome this built in survival system and capacity of grains so as to encourage them to germinate and grow at their earliest opportunity. I soon learnt there were significant differences between the various grains and with that a whole bag (pardon the pun) of agronomic tricks to coax them out of their slumber whilst in the bin in which they were stored. This was achieved through a series of temperature changes, movement and even seed treatments.

Also when and how the seeds were planted in the soil, the soil type, aspect of the field with regard to sunlight and shade and other factors were all important parameters to consider and manipulate. Even the way in which these seeds were planted made a difference to their emergence and survival and indeed their subsequent vigour and emergence and thus the harvested yield and quality of the crop they ultimately produced.

Grains are the result of a super-efficient process that involves transforming sunlight, nutrients, water and air into macronutrients. Humans as farmers commenced growing grains for food in an organised fashion around 15,000 years ago. So in mankind's history and evolution then intentionally growing grain is actually a very new way of supplying food for sustenance. It is hard to absorb that fact when grains are now such a huge global industry, being both a staple part of the Western diet and an important industrial feedstock.

Indeed, grains were originally used principally in the winter months, by humans to provide food when fresh food was difficult to find. As a result humans began to settle in areas where grain could be grown. To further complicate the story there is a school of thought that postulates our bodies and alimentary tract may not have evolved in the preceding hundreds of thousands of years to this very new agricultural era in historical terms, in order to digest grains effectively.

At the time of the industrial revolution it was discovered that whole grains go rancid faster than processed grains due to their fat content. Indeed milling and separating the germ (that I spent my youth trying to trick) and with it the bran prevents subsequent spoilage of the quality and lifespan of constituents of the grain and its subsequent food (and industrial) products.

In the decade preceding World War Two it was discovered that refined grains were nutrient deficient and as a result harming health particularly in the young where nutrient intake was vital to healthy growth. This led to the fortification of grain products, which involved putting back into grain those valuable nutrients that were lost when it was initially processed to improve its keeping quality.

In many developing countries efficient and bountiful grain production is lacking, as is the vital subsequent safe storage, drying and processing facilities essential to its success.

Indeed it is the objective of this charity to make a contribution to improving this position and alleviating the disadvantaged position of the many millions of people affected by this unacceptable position in a modern world. As a result grain and the intake of this calorie rich and dense food in the various developing populations is severely lacking. People who eat enough properly processed and prepared whole grains to maintain fibre and resistant starch and remove anti-nutrients in particular enjoy improved health and development and have sufficient energy for essential daily activity.

So as we settle down for a bountiful Christmas time enjoying good food and the company of our families and friends remember we all enjoy the benefit of a secure and stable food supply. As a result please consider donating a little contribution of the money that good cheer costs in the pursuit of helping the millions of people who want to have a similar secure food supply, and in particular milled nutrient and energy rich grains.

Please go to our website at www.milling4life.co.uk and donate as sparingly as you are able. We, the Milling4life trustees will in turn ensure your donation to this charity is put to very good use in providing real practical assistance on the ground in developing countries in the provision of milling and storage facilities to those most in need and to the betterment of deserving peoples, their families and close ones.

Happy Christmas and New Year to all the readers of this the longest serving publication to the milling and grain industry.