Red Fife Wheat

From one pound of 'Red Fife' seed in 1988 has grown a seedroots movement. People are growing "Red Fife" for a diversity of reasons. For many, using a 'variety' and often 'farmer identified' wheat is a strong political statement against agri business and corporate control over the fundamental 'seed'. Canadian wheats are sold as a commodity 'wheat' without preserving the variety or farmer identification. Heritage varieties of wheat have not been grown commercially in Canada; "Red Fife" is the first. It's a statement that the varieties of the past DO have value and should be trialed under modern growing conditions. If they adapted to a diversity of growing conditions and low input agriculture in the past, why can't they do so again in today's times of climate stress and change?

Historically a fine baking and milling wheat, 'Red Fife' links local bakers and farmers to seed (people, plant and place) and is a strong statement that says learn from the past and we don't need GMO (genetically modified organism) technology to feed us.

From the 100,000 varieties of bread wheat that have been selected by farmers in their fields over centuries, we find the roots and foods for bioregional food systems. By growing these wheats 'on farm' and doing variety selection we find strains that will once again feed people. In the old wheats is a 'memory' and an ability to adapt quickly to a diversity of environmental conditions.

Adaptability and production are what we need for the climate change that we are experiencing. Conventional hybridization and certainly GMO are not working for the niche organic farming communities. And the old wheats taste great!

Growing heritage wheat is a political, ecological and environmental message – a grassroots statement that people are making. It is a symbol of 'hope' in times that often can feel bleak and hopeless.

The Story

'Red Fife' wheat is the newest taste sensation in the Canadian artisan bread world. Described by bakers as 'full of aroma and golden reddish color crust", the oldest named variety in Canada has come out of the gene bank and back into cultivation.

Like many heritage varieties, 'Red Fife' was replaced as 'new and improved' varieties came onto the market. Most of the bread wheats in Canada owe part of their genetic lineage to this wheat, and Canadian wheats are some of the finest bread wheats in the world.

One legend states that a load of bread wheat originating in the Ukraine was on a ship in the Glasgow harbour in the mid 1840s. A friend of Ontario farmer Fife accidentally dropped his hat into the red colored wheat, collecting a few seeds in the hat band, which he then shipped off to farmer Fife. The family cow managed to eat all the wheat heads except for one, which was the beginning of 'Red Fife' wheat in Canada.

By the 1860s 'Red Fife' was distributed across Canada, adapting to a broad diversity of growing conditions. It's offspring 'Marquis' replaced it as the #1 wheat in the early 1900s.

The Canadian Prairies were colonized to produce wheat for export. In the 1920s a registration system for all wheats sold in Canada was put in place to protect the integrity of Canadian wheat. 'Merit' for variety registration was based on agronomic criteria which developed into supporting high input chemical driven agriculture. A grading system also developed that ignored the farmer and the variety name.

By Canadian law it is illegal to sell a non registered wheat variety and the system doesn't allow for 'farmer' and 'variety' preservation. We've commoditized our food so that the variety and the farm name are not identifiable. This worked fine for export and the past eighty years but today's consumers are better educated. Some want to make between the field and their plate. Thanks to the Vancouver Island South Slow Food chapter in Canada, 'Red Fife' was nominated to the "Ark of Taste" as a Canadian icon.

'Red Fife' wheat was never registered in Canada but has traditionally been known as a fine baking and milling wheat. It is being 'reborn' in 2006 and is leading a 'grassroots revolution' where farmers, bakers and consumers are deciding what they want to eat and grow and save as named variety of seed.

Projects like this are happening in other parts of the world, keeping heritage varieties of wheat alive and also allowing researchers and farmers to assess the 'value' of the old varieties in today's growing conditions. There is another reality to the agri business visions and ideals of uniformity in the fields to simplify marketing.

The Movement begins in a Field

The 'Heritage Wheat Project' began in 1988 when one pound of each of the seven historic wheat varieties 'Red Fife' (1842); 'Ladoga' (1880); 'Preston' (1880); 'Stanley (1880); 'Hard Red Calcutta' (1880); 'Marquis' (1890); 'Thatcher' (1930) became a 'Living Museum of Wheat' at the 1870s historic site, The Grist Mill at Keremeos, B.C. History books tell us that 'Red Fife' seed was loaded onto a boat in the Danzig harbour, was collected from the ship in Glasgow harbour and sent to David Fife, Peterborough Ontario in 1842. This wheat fed Canada from 1860-1900.

Holding back half the seed in case of crop failure, the half pound sample of 'Red Fife' was planted in spring 1989. Like a magnet, the historic wheat collection attracted people who spent hours in the fields telling their friends and families stories about old wheat varieties. "I remember dad talking about 'Red Fife' wheat…" and the story would grow from there. People also began to send wheat for the Museum and the collection grew.

Site managers Cuyler Page and Sharon Rempel had a vision; 'let's grow these old wheats with the idea that one day 'Red Fife' will be recommercialized in Canada.' That was 1988 and from the one pound of 'Red Fife' over 70 tons of 'Red Fife' was harvested in Canada in 2004. In 1989 the thought seed for Canada's first Seedy Saturday came from Sharon Rempel, and The Grist Mill and the wheats joined dozens of small seed companies in Vancouver. The idea of the global wheat community was clear at the Vancouver 1989 Seedy Saturday by inviting USC Canada and Vancouver "Nyala" Ethiopian restaurant to the event. Ethiopia is considered the Center of Diversity globally for bread wheat.

Beginning in 1989 heritage wheat seed was offered to members through Canada's heritage seed program Seeds of Diversity Canada including Dan Jason on Salt Spring Island. Dan Jason's Salt Spring Island Seed company has offered 'Red Fife' since the early 1990s. He was joined by Jim Ternier out of Saskatchewan in the mid 1990s.

Sharon continued to maintain the heritage wheat collection. After studying wheat in Greece and Ethiopia in 1994 she continued growing out the wheats at the University of Alberta farm. Joined by wheat technician Kurt Kutschera they hosted many field days introducing people to the beautiful old wheats, and offering seed through Seeds of Diversity.

In 1998 Sharon formed 'The Garden Institute of Alberta' which took over the wheat collection administration. Since 1998 funding has been provided by the 'October Hill Foundation' to maintain the wheat collection and develop interest in 'Red Fife' wheat across Canada.

In 1999, Onoway farmer Kerry Smith began growing 'Red Fife' and other historic varieties. In 2000, 2001 and 2002 the Alberta Organic Association's Walter Walchuk and Sharon co-hosted organic wheat field trials throughout Alberta. In 1998, Jennifer Scott and David Patriquin from Nova Scotia instigated what is now known as the Maritime Heritage Wheat Project. In 2003 the Heliotrust was formed to run a heritage farm that is an education center and home for heritage wheats. It's the first land trust in Canada designed to promote agricultural biodiversity conservation and land conservation together. In 2004 they harvested 20 tons of 'Red Fife'.

You can find out more on their website at www.heliotrust.ca

In 2001 Saskatchewan organic farmer Marc Loiselle began growing 'Red Fife' and has been one hundreds of producers of 'Red Fife' in Canada. He also coordinates the SOD's action against GMO (Saskatchewan Organic Directorate).

In 2001 Kostas Koutis (Aegilops Network, Greece) and Hans Larsson (Allkorn Network, Sweden) joined the 'Heritage Wheat Project' family. Northern Plains Sustainable Agriculture Society (NPSAS) collaborated to produce the 'on farm research guide'.

At the 2002 IFOAM (International Federation of Organic Movements) Global Organic Congress in Victoria B.C. sixty five people attended the 'Organic and Heritage Wheat' session.

In 2003 Slow Food Canada's Vancouver Island Chapter (Mara Jernigan and Sinclair Philips, co chairs) nominated 'Red Fife' for the Ark of Taste, Canada's first nomination to the Ark. Intensive promotions for 'Red Fife' have been done on Vancouver Island.

On September 14, 2003 'Red Fife' had it's first public taste testing event in the west thanks to the Slow Food movement and Wildfire Bakery, Victoria. Ms. J. Sushil Saini was hired to coordinate a 'Red Fife Wheat Presidia' to link 'Red Fife' wheat to artisan bakeries.

In 2003 in India, inspired by the Red Fife movement, Mr. Kranti Prakash took heritage wheats to the Punjab, where the Green Revolution started in India. He continues his work with Dalit farmers in Bihar.

In 2004 at the Slow Food celebration in Italy 'Red Fife' wheat was one of the stars of the event. Victoria baker Cliff Leir baked bread each day allowing the world a taste of one of Canada's oldest living artifacts – "Red Fife" wheat in sourdough artisan bread.

In 2005 over 75 tons of 'Red Fife' seed was harvested on organic farms in Canada. There were 26 farmers working in Saskatchewan and over a dozen in the Maritimes, and farmers right across Canada and now embracing the old varieties. They are finding they are getting good yields, high quality grain and the seed tolerates the extremes in growing conditions happening with climate change.

In 2006 over 200 tons of 'Red Fife' seed was harvested on organic farms in Canada. We hear that the descendants of Mr. Fife are now growing 'Red Fife' on their land in Peterborough Ontario and formed the 'Red Fife Sisterhood'. At the Terra Madre/Slow Food event in Italy Red Fife wheat won the hearts of chefs, bakers, farmers and bread fans. The 'Saskatchewan Red Fife Cooperative' had twenty five members. 'Red Fife' wheat is on the farms of David Fife's descendants in Peterborough Ontario and hundreds of people are now growing the wheat.

In 2007 Sharon has begun work on developing a 'taste palette' with wheat working on soil microbiology enhancement to better enhance the diversity of flavors coming out of various fields. 'Red Fife' is now being used by bakers and chefs across the country. It's mentioned in the '100 Mile Diet' book; the authors wanted to find someone growing grain near Vancouver and couldn't. 'Red Fife' is becoming a household name. Canada's first 'Bread and Wheat' Festival happens in Victoria B.C. October 27, 2007 to celebrate the Ukrainian roots of 'Red Fife' wheat.

So what is ‘Red Fife’?

‘Red Fife’ is a landrace, meaning there is a uniform shape but genetic diversity in the seed population. Called ‘folk seeds’ or ‘farmers’ varieties’, landraces have been feeding people since wheat became domesticated about 10,000 years ago. Landraces provide excellent insurance for subsistence farming populations; there is always something in the field at the end of the season.

They offer built in ‘horizontal resistance’ within the plant group. Many old varieties are able to adapt to a diversity of growing conditions and are called ‘landraces’ due to the genetic diversity. Without the intervention of human hands landraces offer the farmer a guaranteed harvest and the ability to save seed year after year.

There is diversity in the form of the wheat in a landrace; some wheat may have awns, some might be awnless. The seed is a time capsule of possibilities waiting to unfold when it is planted in a field. The genetic variability within a landrace does not give it uniformity or stability which modern agribusiness and export grading systems demand to control the ‘product’.

We find ‘Red Fife’ (the kernel being a red color) may actually become a ‘White Fife’ (the kernel is more white) based on the environmental conditions where it is grown. First thought to be a ‘spring’ wheat farmers are trying ‘Red Fife’ as a winter wheat. This type of adaptability shows how diverse the genetics are in the landrace.

‘Hybrid’ varieties that maintained a predictable uniformity for one or two generations of growing were named and introduced as ‘superior’ to landraces. It might be superior for marketing and to obtain royalties for the breeders and companies, but not superior for diversification to adapt to climate change. Or taste. Taste has never been a consideration of ‘quality’ in the Canadian wheat grading system.

In 2003 and 2004 a diversity of samples of ‘Red Fife’ were sent to the Canadian Grain Commission for protein banding. This technique gives indication of how a variety is changing genetically each time it grows in a field. Of the three samples of ‘Red Fife’ in the Canadian Gene Bank, only one sample was identical to the undated lab sample at the Grain Commission. So we know there has always been genetic variability within ‘Red Fife’. The ‘protein banding’ showed the diversification happening immediately field to field.

That’s why it was able to grow from the 1840s to 1890s in fields across Canada. It fed Canada for sixty years, when it was replaced by it’s son ‘Marquis’, a wheat that ripened a few days earlier. The ‘genetic memory’ in old wheats allow the wheat to adapt quickly to climate change.

Taste has never, and still isn’t considered a ‘merit’ quality characteristic in Canadian variety registration. Yet historically ‘Red Fife’ was known as a top quality milling and baking wheat. That was before the fast acting yeasts of modern agrifood baking. ‘Red Fife’ is ideally suited to traditional sourdough baking methods, where subtle differences in the wheat quality will be embraced by the artisan baker.

‘Red Fife’ seems to develop a more robust ‘red’ characteristic when grown where it can be stressed by temperature during the growing season and a more white delicate flavor when grown in more temperate conditions. We are working to develop a ‘flavor profile’ for wheat to maximize the diversity and match it to various end use user needs.

Welcome back to our kitchens ‘Red Fife’!