



# BOB WILDFONG

An interest in history + a concern for biodiversity  
= the qualities to preserve seed for posterity.

## Protecting Biodiversity

By Stephanie Fehr



**B**OB WILDFONG, who has a math and physics background, has found himself administering Seeds of Diversity Canada, a charitable organization dedicated to the conservation, documentation, and use of native and heritage plants.

Wildfong became involved with Seeds of Diversity while he was a volunteer with an outdoor historic site. "I tended a lot of historic gardens, storytelling about varieties and the historical and social importance of different plants," says Wildfong. "I was trying to restore the garden and looking for turn of the century varieties we could plant. The Seeds of Diversity's exchange program allowed me to access 2,000 kinds of heritage plants."

Little did he know he would end up working for the organization. A volunteer and member since 1988, Wildfong took the helm in 2002 as Executive Director. This interest in heritage plants is, in fact, how most people become involved. "Many people are intrigued because they can get access to a 100-year-old tomato," he notes. Seeds of Diversity, in addition to a number of other activities, runs a seed exchange for its members. By supplying return postage, a member can request seeds from anyone listed in the seed directory, and then grow the seeds in their own garden.

Some of these varieties have made it into farmers' markets and seed companies' inventories. "Small-scale vegetable seed companies are often members of our organization," says Wildfong. "They are able to get seeds through the directory, multiply the seeds, and sell them to market gardeners. It's a

### Seeds of Diversity's work has ensured that some very old varieties are back in business:

- Arikara yellow bean – this 400-year old bean was cultivated by the Arikara aboriginals of North Dakota and southern Alberta. Found by Lewis and Clark on their exploration expeditions and brought back to their sponsor Thomas Jefferson, it was grown at his estate, Monticello, in Virginia. Recently rediscovered and grown by a Seeds of Diversity member, the variety has been field tested and is now registered as a coloured field bean for the Prairies.
- Orange Mennonite tomato – this variety, given to Wildfong by an Old Order Mennonite in the Waterloo area of Ontario, has a unique colour, tangy flavour, solid inside, and ripens early for a beefsteak size. Brought on the wagon train, the variety has been saved through three generations in Canada. Now available in some seed catalogues, it is finding its way to farmers' markets.

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way these varieties end up being in commerce.” He notes that tomatoes are especially popular in farmers’ markets, community-supported agriculture schemes, and roadside stands, because heritage varieties often have thin skins and were not made for shipping but for picking by hand and eating right away.

Another important aspect of the work is documenting the stories and origins of varieties. “A lot of the time we get something like ‘Uncle Carlo’s bean’, for example. Someone’s Uncle Carlo brought it from Italy 80 years ago, grew it in his garden, and saved the seeds,” says Wildfong. “They’ll ask us to grow it for them and we’ll find someone to take it on. But it’s also important to collect information on the heritage varieties – we need to know if the variety is the same as some other Italian romano bean. If we don’t have the information, the variety isn’t as useful.” Information about the origin can tell under which conditions the variety will grow best, and information about the plant’s characteristics is important so people know if the variety is something they want to grow.



This work underscores one of the main goals of the organization – conserving biodiversity, the gene pool of crops that have been used as food for the past 10,000 years. “We use plant biodiversity as a way to adapt the food system to external changes (new plant diseases) and internal changes like changing consumer preferences or new processing requirements,” says Wildfong.

“Plant breeders need to dip back into that gene pool to find the characteristics they need to adapt plants to meet these changes.”


According to Wildfong, the United Nations Food and Agriculture Organization has estimated that, during the 20<sup>th</sup> century, three-quarters of the world’s crop diversity became extinct. “So if there are currently a million different food plants out there – for example wheat, barley, oats, sorghum, papaya, apples, tomato, and so on – there would have been four million 100 years ago,” says Wildfong. “Worldwide we think

about two-thirds of that remaining million is pretty close to extinction, perhaps only available in a gene bank which may be underfunded, or the sample may be 30 years old.” With fewer plant varieties out there, there are fewer options for adapting plants.

Seeds of Diversity members work with the government gene banks to grow out samples, increase the seeds, and return some of the newer seeds to the gene bank, keeping the remainder for him/herself and making them available to the seed exchange. “Getting those seeds into circulation is a really important part of what we do,” says Wildfong. “We’re trying to rescue those varieties that are not being perpetuated by commerce.”

This conservation work is fulfilling an important role. About three years ago the organization did an inventory of horticultural plants (vegetables and fruits) to see if they were overlapping the work of the government seed banks, both in Canada and the United States. There wasn’t much. “We had varieties in our care that were not conserved by government or industry,” says Wildfong. “About two-thirds of the varieties our members were growing were not backed up in the gene banks and they also were not commercially available.”

Out of that study came much more work with the seed bank of Plant Gene Resources of Canada in Saskatoon. “We have identified varieties our members have that are not backed up and we’ve been growing these out to augment the national collection,” says Wildfong. “I don’t think our members really want to be sole stewards of a rare variety, although they are very pleased to know they have rescued something that nobody else has.”

Whether he’s telling the stories behind heritage varieties or furthering the organization’s commitment to biodiversity, Wildfong’s leadership and passion adds up to a brighter future in protecting Canada’s seed resources. 



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