

## Counter crop patents by freeing seeds to feed the world

August 14 2014, by Jack Kloppenburg, Irwin Goldman



Free the seed! Irwin Goldman, Author provided

Today, just three companies – Monsanto, DuPont and Syngenta – account for about half of all commercial seed sales. More and more, agricultural patents are used to increase the control these and similar companies wield over access to the seeds with which farmers feed the world and – especially in the Global South – themselves and their families.

But it was not always this way. Improving crops through plant breeding



has always been a core part of farming and gardening. Farmers would freely exchange their seed with others in order to identify characteristics that could be beneficial in their particular soil or climate conditions. Grow them, cross-breed them, pick the best, then grow and cross-breed them again. Scientific plant breeders do essentially the same thing, and free exchange of <u>seeds</u> and the freedom to use them for the breeding of additional varieties has been a key component of agricultural progress.

Over the past 20 years the growth of the free and open source software movement, whose poster child is the operating system Linux, has provided an alternative to proprietary software from megacorps such as Microsoft, Apple and IBM, and a means to protect against software patents. Taking inspiration from this, we have created a similar organisation, the Open Source Seed Initiative (OSSI), whose aim is to free the seed – that is, to make sure that the genes in at least some plant seeds can never be locked away from use by intellectual property rights.

OSSI kicked off its outreach activities on the University of Wisconsin campus on April 17 this year, with members – plant breeders, seed companies, and sustainability advocates – rallying to share seeds with each other and with the community. They then took a pledge to keep that seed freely available to anyone who wants to use it.

We chose April 17 as it had been designated as the <u>International Day of Struggles in Defence of Peasants' and Farmers' Seeds</u>, announced by landless and peasant farmers groups worldwide in response to the growing struggles they face with commercialised agriculture and the increased patenting of seeds.

OSSI's <u>Open Source Seed Pledge</u> commits anyone who receives and uses OSSI seed to keep that seed, and any seed derivatives that are bred from that seed, freely available for use by others:



By opening this packet, you pledge that you will not restrict others' use of these seeds and their derivatives by patents, licenses, or any other means. You pledge that if you transfer these seeds or their derivatives you will acknowledge the source of these seeds and accompany your transfer with this pledge.

This pledge is OSSI's equivalent of the idea that underpins the <u>open</u> <u>source software</u> movement, in the form of the General Public Licence, or <u>GPL</u>. The GPL states that the software is free to use, but any modifications to it or other software derived from it must be licensed under the GPL too, ensuring the benefits accrue to the public and continue to be free.

Importantly, that's "free" as in freedom, not "free" as in you don't have to pay for it. Because just as we need free speech to be able to say what needs to be said, we also need free seed to be able to breed what needs to be bred.

This OSSI pledge to freely share is essential. A patented seed cannot be saved, or replanted, or shared by farmers and gardeners. There is no standard research exemption for patented material, so plant breeders at universities and small seed companies usually cannot use patented seed to breed the new crop varieties that should be sustainable alternatives to the conventional cultivars of the big commercial firms. The yield and productivity increases of the last sixty years began with academic, government, and public interest scientific institutions breeding and developing the crop varieties that now feed billions of people worldwide. The fruits of their research – the seed – were freely available to all. Today much research work is being done by major agro-tech businesses, and their products must be purchased.

In order to continually improve our crops to feed the world's rapidly growing population, farmers and plant breeders need access to the best



genetic resources. But increasingly that access is being limited due to seed patenting and licensing. OSSI creates a pool of genetic resources that are freely available for all to use, share, save, replant, and breed, and are a conduit through which seeds can be widely distributed. These seeds can never be wholly owned or their use restricted. In addition, OSSI serves an educational mission to promote awareness of germplasm access for farmers, gardeners, and plant breeders and to foster a conversation about plant breeders' continued "freedom to operate."

Among the 36 varieties of 14 species shared on April 17 were Wrinkled Crinkled Crumpled cress from Frank Morton of Wild Garden Seed in Oregon, Full Pint malting barley from Pat Hayes of Oregon State University, Midnight Lightning zucchini from Vermont's High Mowing Organic Seeds, and Sovereign carrots from the University of Wisconsin's Irwin Goldman.

Most of the OSSI varieties are available as organic seed and were bred with organic growers and gardeners in mind. Within a month, OSSI received more than 400 orders from 16 countries. Clearly there is a hunger for seed that is not just agronomically good, but also fair. In the future OSSI hopes to offer a certified brand that can be used in seed catalogues to identify "free seed" to those who agree that what the world needs is more free and open source seeds, not patented and indentured seeds.

OSSI is itself a seed that we have planted, and we wait with hope to see how it grows.

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