

The Open Source Seed Initiative: Liberating Seeds From (all-but one!) Use-Restrictions

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Background

The erosion of farmer sovereignty over seed—via corporate appropriation of plant genetic resources, growing monopoly power in the seed industry, the development of transgenic crops, and the global imposition of intellectual property rights (especially patents)—has become a pivotal issue for farmers the world over. Increasingly, the access of farmers and breeders to genetic material is subject to use-restrictions drawn from both intellectual property and contract law. In response, the Open Source Seed Initiative was created to “free the seed” from such use-restrictions. This is accomplished with a “copyleft” Pledge attached to newly bred cultivars. Recipients or purchasers of OSSI-Pledged seed are assured of the freedom to do whatever they wish with the seed, with one restriction: that they give that same freedom to anyone to whom they give or sell that seed or any of its derivatives or progeny.

Although revisions have further circumscribed their original rights, under the Plant Variety Protection Act farmers can still save and replant seed of protected varieties for their own use, and breeders can employ those materials for the production of new cultivars. However, neither a “farmer’s exemption” nor a “research exemption” is available for material protected under U.S. utility patent law. The mutually reinforcing effects of concentration and patenting have had significant effects on both farmers and breeders: they cannot save, replant, share, sell, or breed with patented material without the permission of the patent holder.

Moreover, concentration in the seed industry has now proceeded so far that intellectual property arrangements need no longer even be the chief means for reducing the “freedom to operate” of farmers and breeders. Use-restrictions on seed are now most commonly applied and enforced via contract law. The mechanism for this is—for farmers—the “bag tag” or Technology Use Agreement (TUA) and—for breeders—the Materials Transfer Agreement (MTA). Both the TUA and the MTA are legal contracts which specify a wide variety of use-restrictions as a condition of acquiring the seed. While application and enforcement of patents and TUAs is notoriously visible in field crops such as maize, soy, and wheat, these arrangements are now being widely applied in the vegetable sector. The Open Source Seed Initiative was created expressly to free the seed from these use-restrictions and to restore freedom to operate to farmers and breeders.

OSSI’s Origins and Organization

The Open Source Seed Initiative (OSSI) was formally established in May 2012 at a meeting in Minneapolis, Minnesota. The twenty persons attending represented a wide

variety of perspectives and interests—academics, plant breeders, the seed trade, farmers, indigenous people, the Global South—and shared a deep concern over the way in which intellectual property rights are being used to enhance the power and control of a handful of companies over the seeds and farmers that feed the world. Further, the participants shared a commitment to creating a means for ensuring that the genes in at least some seed cannot be locked away from use by patents and other restrictive arrangements. The core strategy for achieving that goal is the dissemination and propagation of the OSSI Pledge and of OSSI-Pledged varieties, both of which preserve the rights of farmers, gardeners, and plant breeders to freely use, save, replant, and improve seed of OSSI-Pledged material.

OSSI was incorporated in the State of Wisconsin in July 2014. It was granted federal tax exempt, 501(c)3, status in April 2015. It received trademarks for the OSSI logo in August 2015, and for “Open Source Seed Initiative” in January 2016. OSSI is managed by a nine person board of directors supported by an Executive Director. Together, this staff plans and implements education and outreach that promotes sharing rather than restricting access to plant germplasm, recognizes and supports the work of plant breeders of all kinds, and supports a diversified and decentralized seed industry.

The OSSI Pledge

The OSSI Pledge was inspired by the free and open software movement that has provided alternatives to proprietary software. Since a formal license, while possible to develop, turned out to be impractical to use, OSSI created its Pledge as a simpler and more functional tool. The OSSI Pledge reads:

“You have the freedom to use these OSSI-Pledged seeds in any way you choose. In return, you pledge not to restrict others’ use of these seeds or their derivatives by patents or other means, and to include this Pledge with any transfer of these seeds or their derivatives.”

This “copyleft” commitment ensures that the Pledge is transmitted with any further distribution of the seed or the seed of any new varieties or lines bred from it. The Pledge has both moral and legal force and is a guarantor of what OSSI regards as the **Four**

Essential Seed Freedoms:

- 1. The freedom to save or grow seed for replanting or for any other purpose.**
- 2. The freedom to share, trade, or sell seed to others.**
- 3. The freedom to trial and study seed and to share or publish information about it.**
- 4. The freedom to select or adapt the seed, make crosses with it, or use it to breed new lines and varieties.**

OSSI refers to seed of OSSI-Pledged varieties as “freed seed,” rather than “free” seed to emphasize that OSSI-Pledged seed is freed with respect to use, but not necessarily free in price. OSSI accepts certain contracts or agreements to facilitate seed increase and/or provide benefit sharing to breeders. OSSI permits any contract or agreement for seed increase and/or benefit sharing for OSSI-Pledged varieties in which the agreements on the use of the seeds are limited to the two contracting parties. OSSI does not accept

arrangements in which there are restrictions on the seed that extend beyond the two contracting parties. Seed companies can pass no restrictions on to breeders or customers. From the point of view of breeders or customers, OSSI-Pledged varieties must be unrestricted.

Operations

OSSI works to continuously enlarge the pool of crop varieties that are “OSSI-Pledged,” and so are freely available for use and improvement by farmers, gardeners and breeders without encumbrances. In addition, OSSI spreads information about and promotes the use of these varieties. OSSI recruits breeders (**OSSI Variety Contributors**) who formally commit to offering one or more of their cultivars only under the OSSI Pledge. **OSSI Seed Company Partners** agree to sell at least one OSSI-Pledged variety, to market the seed by labeling it with the OSSI logo and/or name, to acknowledge the breeder in variety descriptions, and to include the Pledge and information about OSSI in their print and on-line catalogs. On the “Seeds” page of its website, OSSI provides a list of OSSI-Pledged varieties with photos and descriptions. The list is searchable by crop, breeder, and seed source. Through its educational and outreach activities, OSSI creates awareness of the social value of purchasing “freed seed.” Via its website and outreach materials, OSSI guides farmers and gardeners to its Seed Company Partners. For its Seed Company Partners, OSSI is thereby creating a niche market for ethically produced, “freed seed” analogous to the markets for “fair trade” and “organic” products.

While some public breeders have OSSI-pledged some varieties, it is notable that the great majority of OSSI-Pledged cultivars have been contributed by “freelance” breeders. With diverse backgrounds and training, these independent, non-institutional breeders predominantly develop organic/sustainable cultivars adapted to local agronomic conditions or markets, and sell seed of their cultivars in relatively small quantities directly to farmers and gardeners or through small seed companies. What they have in common is a fierce commitment to keeping seed accessible. Moreover, they appear to be the ones most clearly positioned to benefit from OSSI. Pledging their cultivars to OSSI results in acknowledgment of their work, formal registration of their cultivars, and a measure of protection against unauthorized and unrecompensed multiplication and sale of their material—none of which they enjoy in the current system.

OSSI’s portfolio currently includes over 450 OSSI-Pledged cultivars contributed by 46 OSSI Variety Contributors. Seed of these varieties is available from 71 OSSI Seed Company Partners. OSSI’s work has received extensive coverage in media outlets of all kinds.

International Cooperation

The issues that have stimulated the creation of OSSI are global in scope and significance. Colleagues all over the world have been excited and inspired by the potential of open source approaches to freeing the seed. OSSI has Variety Contributors and Seed Company Partners in Australia, Canada, Finland, Ireland, and the UK. However, socio-agro-legal-political environments vary considerably around the world. OSSI’s

deployment of open source seeds in the USA is facilitated by the fact that the USA places virtually no restrictions on breeding and subsequent sale of seed. In contrast, breeders and seed sellers in most other countries of the world face extremely restrictive administrative regulations such as mandatory registration and national lists of varieties approved for sale. Practically speaking, farmers, gardeners, and small seed companies find it very difficult to breed and sell their own varieties. Most nations of the Global South are now being pressed to accept these restrictive IPR, phytosanitary, and certification rules. Despite such barriers, efforts to free the seed are making gains globally. The German NGO, AGRECOL, has written an open source license adapted to EU conditions, the Indian NGO, Centre for Sustainable Agriculture, has developed an open source license designed to complement the Indian Seed Law, the Argentine NGO Bioleft has prepared open source licenses for its conditions, and the Kenyan NGO Seed Savers Network Kenya is registering farmers' varieties to keep them freed and free from privatization. OSSI has cooperated with these initiatives and others to form the Global Coalition of Open Source Seed Initiatives (GOSSI).

Contact:

OSSI welcomes communication and commentary from interested parties. Visit our website at osseeds.org or contact us via e-mail at info@osseeds.org.

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