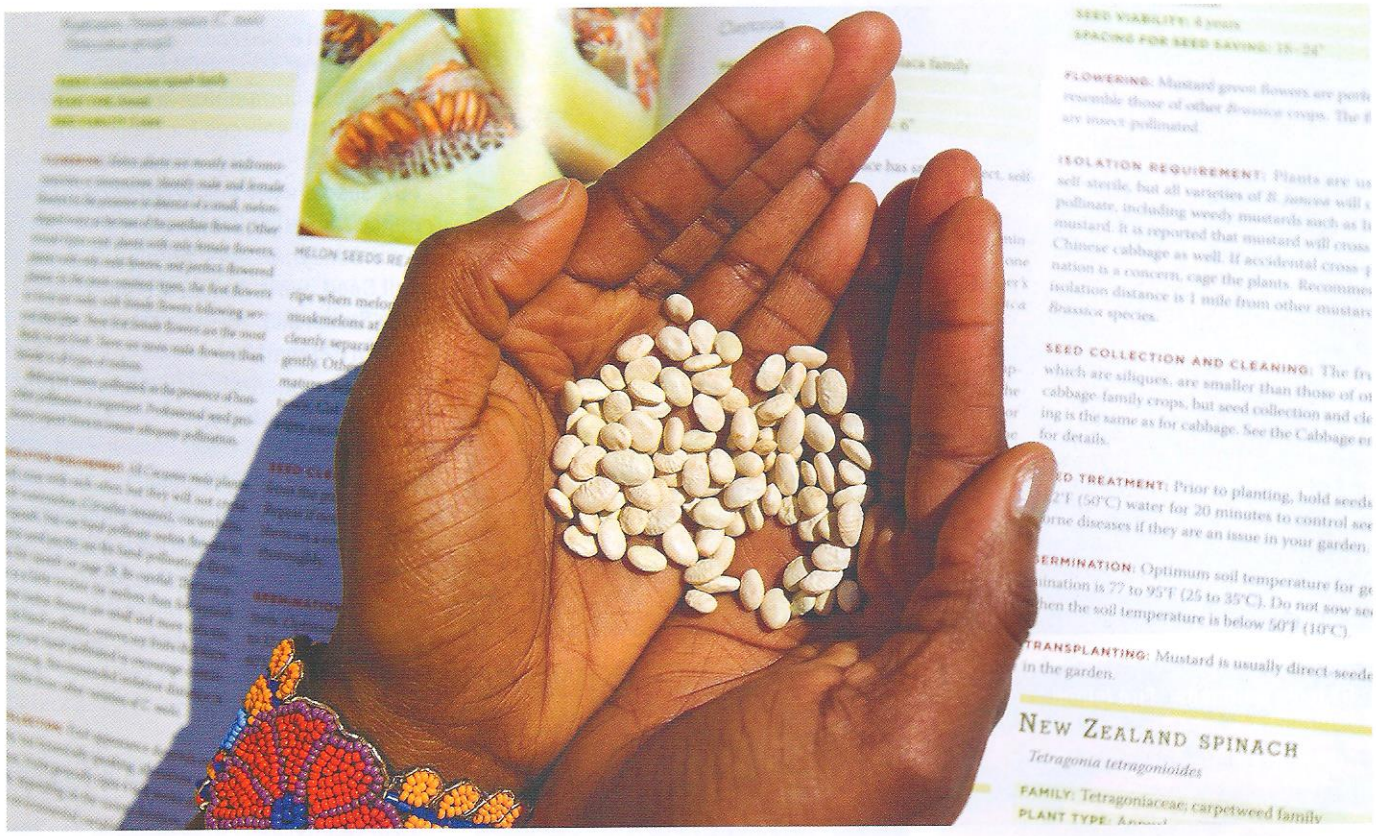
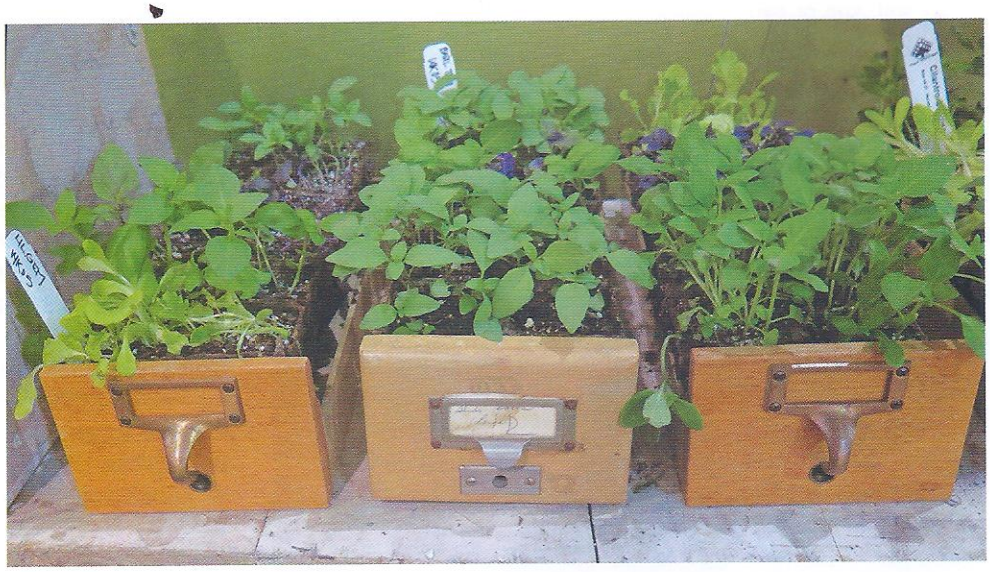


Libraries *go to* Seed

Along with books and other media, public libraries are adding seeds to their catalogs as a way to preserve genetic diversity and boost gardening know-how.

BY EVA MONHEIM



TOP: COURTESY OF BMA COUNTY PUBLIC LIBRARY; BOTTOM: EVA MONHEIM

COURTESY OF PIMA COUNTY PUBLIC LIBRARY

THE CONCEPTS of saving, sharing, and even swapping seeds are as old as agriculture itself. For example, for hundreds of years Native Americans exchanged seeds at trading posts and even used them like currency to procure other goods. All this interchange resulted in a tremendous amount of genetic diversity in cultivated plants, which is particularly valuable for staying ahead of pests, diseases, and other challenging conditions. However, scientists estimate that about 75 percent of this diversity has been lost over the last century because seed production has become increasingly industrialized.

A handful of huge companies now control more than half of global seed sales and they only keep the most lucrative seeds in production. The majority of these are patented hybrid or genetically modified varieties, meaning they cannot legally be saved from year to year by those who grow them. Sure, there are seeds from open-pollinated varieties that can be saved, but unfortunately there are far fewer people who do so today, compared with previous generations.

Of course, plenty of small seed companies, seed banks, and nonprofit organizations around the world act as arks to prevent further loss of genetic diversity. And in recent years, an unexpected ally has taken an active role in both preserving heirloom varieties and getting people interested in growing from seeds: Public libraries.

From a practical standpoint, it certainly makes sense to have seeds available at libraries, which already have organization and catalog systems in place for books and other media. Patrons simply check out seeds and, after growing new plants and harvesting the resulting seeds, "return" them to replenish the library's supply. Libraries also can attract new audiences by providing classes in seed-saving techniques and growing from seed, in addition to offering more books on gardening. And when you consider that many libraries already loan out items such as toys, kitchen gadgets, crafting tools, and study kits, why not seeds, too.

SAVING SEEDS, SOWING KNOWLEDGE

The idea of this mutually beneficial arrangement occurred to Ken Greene in 2004 while he was working at a public library in Gardiner, New York. At the time, genetically modified organisms (GMOs)

Above: A patron at the Pima County Public Library in Arizona looks through the seed packets contained in the library's repurposed card catalog. Opposite top: A volunteer shows off bean seeds that can be "borrowed" from the Pima County Seed Library. Opposite, bottom: The Hudson Valley Seed Library in New York whimsically displays seedlings growing in old card catalog drawers.

were a relatively new topic of public debate and Greene became concerned about their implications for edible plants. He set up a seed lending program at the library to help the community save and share heirloom seeds as a way to preserve GMO-free varieties. It was one of the earliest library-based seed lending programs in the country and the first on the East Coast.

The program took off and a few years later Greene and his partner, Doug Muller, spun this small but successful operation into a for-profit venture known as the Hudson Valley Seed Library in Accord, New York. Its core mission of preserving heirloom and open-pollinated varieties remains the same. To that end, the company produces its own seed and works with other nearby farmers to grow varieties that are indigenous to the region.

On the other side of the country, middle school teacher and permaculturist Rebecca Newburn co-founded Richmond Grows Seed Lending Library in 2010 at the Richmond Public Library in California. An innovative aspect of this seed library is that it uses a rating system to indicate how easy or challenging particular seeds are to save. This has to do with how particular plants produce seeds. Those that can self-pollinate—such as tomatoes, lettuces, peas, and beans—require less on the part of the seed-saver than those that cross-pollinate, which may require hand-pollination to ensure the seeds will "breed true," meaning the resulting plants will have the same characteristics as the mother plant. The seed library encourages newbies to start with seeds labeled "Super Easy" if they want to return seeds to the library after growing these plants.

Education is an important part of the seed library's mission, so it provides plenty of gardening information through on-site handouts, signage, and free classes on seed starting, organic gardening, and seed saving. Its website contains a wealth of resources such as charts of easy plants for seed saving and tips for collecting seeds to share. On a separate website *(www.seedlibraries.net)*, Newburn maintains an online database of "sister" seed libraries across the country. "I have the count at 579 open seed libraries with over 500 more communities having expressed an interest in starting a seed library," she reports. There's at least one in almost every state, and a few in other countries. This website also provides step-by-step instructions for starting a new seed library, complete with supply lists, templates for labels and signage, and even a link to an open-source database for tracking seed accessions (see "Resources," page 21).

Rebecca Newburn, co-founder of the Richmond Grows Seed Lending Library in California, helps a young patron find what she's looking for among the library's stock of seeds.

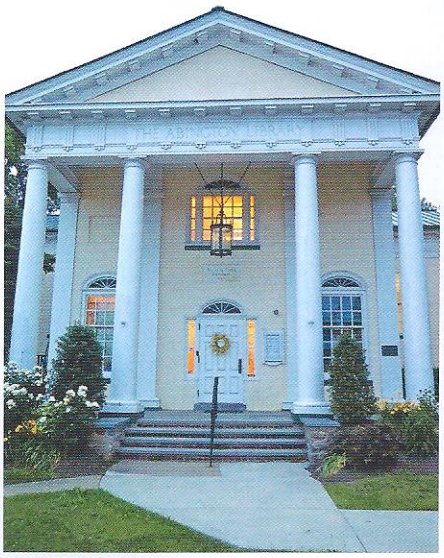
MANY WORKABLE MODELS

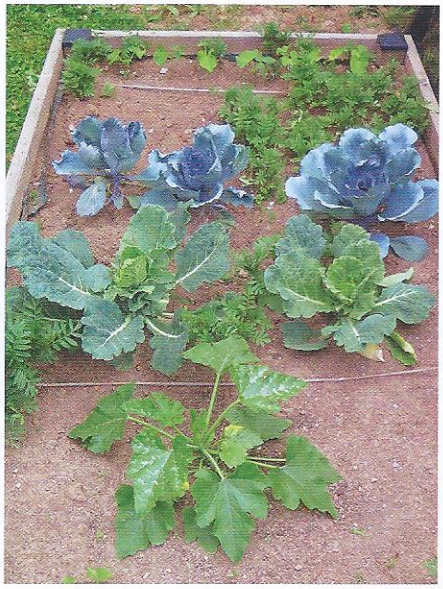
Richmond Grows has served as a model for similar seed libraries across the country, such as the Pima County Seed Library in Tucson, Arizona. Justine Hernandez, a librarian at the Pima County Public Library, launched it in January 2012. Eight branches of this public library house a collection of seeds, and patrons can even use its central online catalog to reserve seeds for pick up at their local branch.

Roughly 8,000 seed packets were checked out the first year of operation. About 20 percent of these were provided by community members; the remainder were donated by seed companies and hardware stores. The program has grown steadily each year, and in 2016 the library distributed an estimated 27,000 packets. Now about 30 percent of the seeds are returned by the patrons who grew them. Hernandez attributes the seed library's continued success to having strong support from a large pool of residents, including a number of Master Gardeners.

The Jenkintown Library, located in a small town just outside Philadelphia, Pennsylvania, has adopted quite a different model for its seed library. It invites patrons to select up to three seed packets from a large wooden bowl without obligation. These seed packets are donated by the Seed Savers Exchange, a nonprofit based in Decorah, Iowa, that works to preserve heirloom and open-pollinated varieties. In order to take more seed packets, lenders need to bring their own seed packets to exchange one-for-one, explains Bonnie Miller, who coordinates this program. Volunteers plant a small display garden outside the library each year to showcase the various vegetables that are available. The resulting produce may be harvested by residents in need or donated to a local shelter.

As these two examples illustrate, the way seed libraries operate can vary consider-





Bonnie Miller, who coordinates the seed library at the Jenkintown Library in Pennsylvania, displays the seed packets available to patrons, top. Volunteers at the library, shown above left, grow some of the seed varieties in a display bed, above right, so that people can see what they look like.

EVA MONHEIM (3)

ably. Full-fledged seed libraries with formal check-out policies like Pima County work best when there are larger numbers of people involved in the programs and more staff to maintain the system. In less populated areas like Jenkintown, it may work better when a library takes a less hands-on approach.

Because seed libraries can be so flexible, the concept has begun to spread beyond public libraries into other public spaces such as community centers, universities, and schools. For example, the Seed Library of Los Angeles (SLOLA) is based at Venice High School. The school makes use of the seed library's stock by growing anything that can be a potential food source in its Learning Garden. "We believe climate change is the biggest challenge facing us at this time," says SLOLA's founder David King, "and so we are working with crops (like amaranth and mesquite) that can take extended high temperatures and still produce a viable crop." Students then help to collect seeds from plants that did well and return them to the library.

Unlike other seed libraries, people pay a modest membership fee in order to borrow seeds from SLOLA. A large part of its mission is to make Los Angeles a GMO-free zone, so members also must sign an agreement to avoid any genetically modified seeds or plants in their gardens. When returning seeds, they are required to describe how they were saved and what growing practices were used.

LOCALLY ADAPTED SEEDS

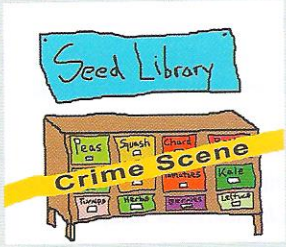
What all of these different seed libraries have in common, however, is that they each serve a relatively local community, rather than a national or global audience. The benefit here is that these libraries essentially can crowd-source the production and development of locally adapted seed strains—something that is not economically viable for most large seed companies.

Resources

Global Map of Seed Libraries, *www.seedlibrarymap.com.*
Hudson Valley Seed Library, *www.seedlibrary.org.*
Organic Seed Alliance, *www.seedalliance.org.*
Richmond Grows Seed Lending Library, *www.richmondgrowsseeds.org.*
Seed Libraries: And Other Means of Keeping Seeds in the Hands of the People. Cindy Conner. New Society Publishers, Gabriola Island, BC, 2014.
Seed Library of Los Angeles, *www.slola.org.*
Seed Library of Pima County, *www.library.pima.gov/browse_program/seed-library.*
Seed Library Social Network, *www.seedlibraries.org.*
Sister Seed Libraries Database, www.*seedlibraries.net.*
Sustainable Economies Law Center Seed Law Resources, *www.theselc.org/seed_law_resources.*

THE LONG ARM OF THE SEED LAW

Seed libraries have attracted national media attention in the last couple of years because of a kerfuffle over whether state seed laws that regulate commercial seed ventures also apply to these not-for-profit seed entities. In 2014, the Pennsylvania Department of Agriculture brought this issue to a head when it ruled that a nascent seed library in the Joseph T. Simpson Public Library in Mechanicsburg, Pennsylvania, was not in compliance with the state's seed laws that mandate germination testing, labeling, and other requirements not feasible for the small operation. This basically prohibited the library from accepting seeds harvested by community members, which, after all, is central to what a seed library is all about. Not long after, several other states cracked down on seed libraries under their jurisdictions, too. Seed sharing advocates came to their defense, arguing that seed libraries should be exempt from these restrictive laws.



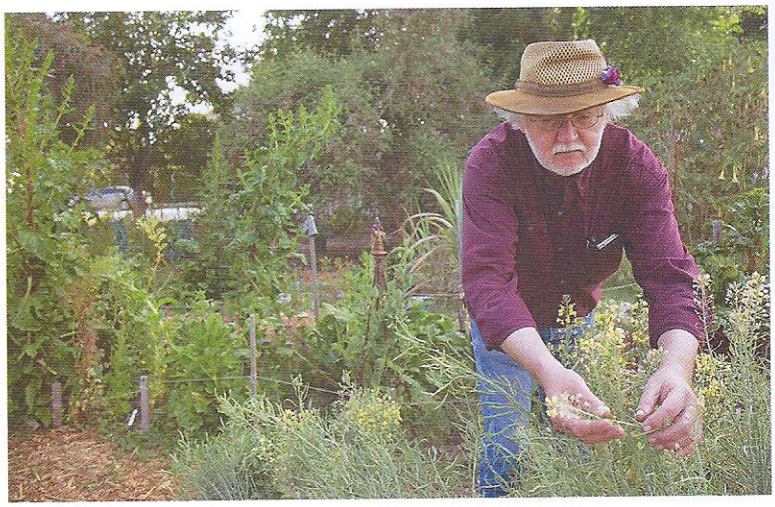
"Seed laws exist to regulate entities that sell or commercially exchange seeds," explains David King in a Seed Library of Los Angeles blog post dated April 2, 2015. "A seed library is a noncommercial nonprofit, cooperative, or governmental organization that donates seed and receives donations of seed, especially by encouraging members to learn about seed saving and donate seeds to the library. Seed libraries are far different in nature and scale than commercial seed companies and need to be appropriately recognized under the law to protect their ability to continue freely sharing seeds in communities across the country."

Because of strenuous advocacy on the part of seed librarians, growers, organizations such as the Sustainable Economies Law Center, and many others, the situation has begun to change. To date, four states--Minnesota, Nebraska, Illinois, and California--have amended their seed laws to exempt seed libraries. The Simpson Seed Library in Mechanicsburg also got good news, because the Pennsylvania Department of Agriculture has since determined that its seed law does not apply to seed libraries because the selling of seeds is not involved.

As this issue continues to play out across the country, advocates are keeping pressure on legislators to appropriately amend seed laws. Both the American Association of Seed Control Officials and the American Seed Trade Association are in favor of the Recommended Uniform State Seed Law amendment that exempts seed libraries, so now it is up to each state's legislature to approve it.

—Viveka Neveln, Associate Editor

"Increasing the number and variety of plants that are suited for the particular area in which they are grown," says King, "is one of the most important functions of seed libraries." For SLOLA's members, they favor varieties that will thrive in the hot, dry summers of Los Angeles. The more they save and share seeds from such plants, the better the seed library's selections will become for all users.



David King, founder of the Seed Library of Los Angeles, checks broccoli flower stems for ripened seeds to harvest and package.

Similarly, the Pima County Seed Library in Arizona encourages its participants to "help create local seed stocks that are better acclimated to our unique desert climate and which support an abundant and genetically diverse landscape." To spotlight a particularly well adapted variety, in 2016 the library debuted One Seed Pima County, an initiative that invited the community to "share the experience of planting, growing, harvesting, and appreciating one specially chosen, regional plant variety."

The plant of choice was brown tepary bean *(Phaseolus acutifolius)*. This extremely drought-tolerant, heat-loving, easy-to-grow plant has been cultivated by Southwestern native peoples for millennia. In an effort to "honor and learn more about the rich agricultural roots of our desert home," the library distributed 700 seed packets along with growing instructions, harvesting tips, and recipes for the nutritious beans. Everyone from new to longtime gardeners all across Tucson tried their hand at raising the beans, and about 10 percent returned seeds to the library. An even more robust program is planned for this coming year.

Much like seeds themselves, the seed library concept came from humble beginnings but has grown into a powerful movement. As these libraries continue to flourish across the country, communities everywhere will benefit from increased access to seeds—especially from plants that are adapted to particular regions. Possibly even more valuable are the participants these libraries empower to gain first-hand gardening experience and to ultimately contribute to the seed supply. More gardeners and greater seed diversity can only mean a greener world all around.

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