

Much of modern European agriculture favours homogeneity over diversity. And yet in the back gardens of Europe, a few farmers continue to grow a rich variety of crops to suit their needs. A study by Bioversity sheds light on the potential of home gardens as havens for the conservation of Europe's crop diversity.

Hope flourishes in home gardens



In the vicinity of Lake Trasimeno in Umbria, Italy, the Pelosi brothers are credited with bringing the cowpea (*Vigna unguiculata*) back into the lives of their neighbours. A hardy crop, cowpea used to be an important staple in Italy until after the second world war, when it was largely forgotten. The Pelosi family stubbornly held on to their seeds and now, thanks to the brothers' efforts, cowpea is enjoying something of a renaissance in the region. Ask the Pelosi brothers why they continue to grow this and other traditional crops and varieties in their back gardens and their answers will invariably turn to 'the old days' and stories of memorable meals with family and friends. They may not realize it, but conservation efforts such as theirs play a vital role in keeping alive Europe's crop diversity and the knowledge associated with it.

The Pelosi brothers with their nephew and some of the cowpea seeds they have kept going in their garden in Umbria, Italy.



V. Negri

The Pelosi's was just one of many stories about the conservation efforts of Europe's farmers that were exchanged at a meeting on the conservation of crop landraces in European home gardens, held in Ljubljana, Slovenia, in October 2007. Bioversity organized the conference under the auspices of the European Cooperative Programme for Plant Genetic Resources (ECPGR), for which Bioversity provides the secretariat. Experts from non-governmental agencies, universities, seed-saver networks and gardeners' associations drawn from 30 European countries participated.

"The aim was to launch a new research agenda that will help formalize the critical role that Europe's home gardens play in conserving the region's crop diversity," explained Lorenzo Maggioni, Bioversity scientist and coordinator of the ECPGR.



L. Maggioni/Bioversity International

Near Zagarolo, a small town on the outskirts of Rome, Italy, Raffaele Passari, an 83-year-old Italian farmer, continues to grow a landrace of leafy kale cultivated by his grandfather.

To help develop that new research agenda, Bioversity commissioned a review of current policies and research on home garden conservation across Europe. The review revealed that some farmers and gardeners do continue to grow traditional varieties and landraces of some of Europe's most important horticultural crops, legumes and grains in their home gardens and concluded that home gardens could play a strategic role in conserving Europe's crop diversity.

“Everyone was surprised to learn that, despite the large-scale commercialization of agriculture in Europe, there are still many dedicated farmers and gardeners who continue to grow and conserve traditional varieties in small plots around the home,” noted Pablo Eyzaguirre, Senior Scientist and anthropologist at Bioversity.

But the good news came with a note of urgency: “These efforts are still few and far between and they are often carried out by elderly farmers,” warned Gea Galluzzi, author of the review. “We need to ensure that these efforts are given the political and financial support they need to continue, and that awareness of their value is raised among younger generations.”

In many other regions of the world, traditional varieties and landraces represent the majority of crops planted. In Europe, however, commercial agriculture has relegated traditional varieties to small patches and gardens around the home. And yet, these varieties could prove vital in meeting the region’s needs in the face of climate change and other major agricultural challenges (see *Adapting agriculture to climate change*, page 2). But landraces and traditional varieties are not well represented in genebanks, making up only a third of material stored in collections worldwide.

Fortunately, a few farmers still continue to grow traditional varieties, despite their lack of commercial value. The reasons behind this can be personal or cultural. For example, a landrace might be grown because it suits a specific need or taste. In the province of Tuscany in Viterbo, Lazio, for example, some Italian farmers continue to grow a particular type of tomato because they consider it to be the most suitable for preparing a local dish of stuffed tomatoes.

Conservation in home gardens offers advantages that complement the benefits of conserving material in genebanks. Maintaining varieties in a home garden allows evolutionary processes to continue, thus enabling potentially valuable traits to develop. Conserving material in a genebank, on the other hand, freezes these processes, providing a snapshot of the material at the time it was collected.

“In home gardens, evolution still goes on, offering a living example of flexible on-farm management on a small scale,” explained Galluzzi. Conservation in home gardens is also about conserving the traditional knowledge that keeps these systems alive.

“The people who grow these varieties are as important as the varieties themselves,” explained Eyzaguirre. “They are treasure troves of knowledge on the properties, uses and history of these crops.” Without that knowledge, conservation loses much of its value. The study recommends further research into these traditional knowledge systems and how this knowledge is imparted from one generation to the next.

The study also identifies opportunities for making the conservation of traditional varieties in home gardens a more lucrative affair for farmers. Incentives such as appellations of origin and other regulations and policies concerning *terroir*, cultural practices and cultural history could put these farmers in touch with new markets.

Ageing farmers and lack of financial support are two of the threats facing home garden conservation. But maybe the most pressing threat that the study identified is the increasingly complex policy environment that engulfs such small-scale conservation efforts.

The European Community provides no formal recognition of home gardens and their contribution to the conservation of plant genetic resources. To make matters worse, European legislation exacerbates this already discouraging situation by creating a complex regulatory environment around the sale of seed. European farmers and gardeners are forbidden to market seeds of varieties that have not been registered in the European Common Catalogue. Registering a variety is both expensive and complicated. In April 2007, a new draft directive was published, setting the conditions for commercializing so-called conservation varieties. This draft is still in discussion and more study will be needed to understand exactly how it might affect the exchange and conservation of diversity in home gardens.



G. Galluzzi

A home garden near the Parco dell'Uccellina, a nature reserve in southern Tuscany, Italy. Home gardens are often rich in diversity, harbouring important landraces and traditional varieties that modern agriculture has cast aside.

“The significant role of seed exchange must not be underestimated,” noted Galluzzi. Seed exchange—getting and giving interesting crops and varieties—is one of the key elements for people who grow diversity in their home gardens. Supportive policies that take into account the special nature of these small-scale conservation activities and the need for exchange will help ensure the continuation of home garden conservation efforts. “Growing public interest in biodiversity, organic farming and the benefits of home gardens in agro-ecosystems make this a propitious time to begin a Europe-wide research initiative on this topic,” said Maggioni.

Participants at the meeting in Slovenia resolved to develop a five-year agenda to address some of these pressing issues. “There is still time to save this precious bio-cultural resource but the pace of change is also accelerating,” concluded Eyzaguirre. “As our research gets underway, we resolve to increase our efforts to communicate about this important issue to policy-makers and the public.”

Further information
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