



New England Farmers *meet* Immigrant Needs

Photograph by Maria Moreira

In recent years, as Massachusetts has attracted increasing numbers of immigrants—many of them nostalgic for home-country cuisine—an opportunity has opened for New England’s farmers to reach new markets. A multi-institution agricultural collaborative headed up by the University of Massachusetts at Amherst is tapping into that opportunity with research on ways to grow and market local immigrants’ favorite vegetables.

According to the U.S. Census Bureau's 2006 American Community Survey, Asians represent 5 percent of the Massachusetts population. Hispanics are the largest ethnic minority, with 8.2 percent of the population. The number of Brazilians living in the state went from 36,669 in 2000 to 84,836 in 2005, but estimates of undocumented Brazilians are much higher.

The UMass Extension collaborative has been working since 1996 on projects to research crops favored by immigrants and to help farmers produce and market them.¹ The efforts began with crops popular among Puerto Ricans and Dominicans and have since branched out to include favorites of Asians, Brazilians, and other Latin Americans.

Most crops that recent immigrants from tropical climates prefer can be grown in the northeastern United States. After all, more than 70 percent of the nearly 20,000 acres planted in Massachusetts feature crops that originated in warmer regions—sweet corn, pumpkins, squash, peppers, and tomatoes, among others. Now, thanks to the new research, commercial farmers in Massachusetts are growing additional vegetables for immigrant groups—calabaza (*Cucurbita moschata*), ají dulce (*Capsicum chinense*), water spinach (*Ipomoea aquatica*), and more. (See “Vegetables Popular with New England Immigrants.”)

In 2002, the collaborative began to focus on crops popular with Brazilians. And in 2005, UMass hired Raquel Uchôa de Mendonça, a Brazilian with an agronomy degree, to help evaluate production practices and marketing strategies for Brazilian crops. She works closely with local Brazilian media to promote the crops.

Brazilian, West African, and Latino Crops

In 2006, the collaborative conducted market analysis on two Brazilian crops: abóbora híbrida and maxixe.

Abóbora híbrida (*Cucurbita maxima* x *C. moschata*) is the most popular hard squash in Brazil. It is used in salads, soups, and meat dishes, and is often canned or pureed for baby food. Consumers look for deep orange flesh, so abóbora is commonly sold halved and wrapped in plastic. Maxixe (*Cucumis sativus*), a cucumberlike vegetable, is used in salads, soups, and beef dishes.

Test marketing of abóbora and maxixe took place in Massachusetts and New

Jersey in 2006 and confirmed that a market existed. Simultaneously, UMass Research Farm in Deerfield demonstrated that the vegetables could be grown successfully in Massachusetts. As a result, members of the Pioneer Valley Growers Association, based in Whately, Massachusetts, decided to grow several acres in 2007.

Another crop, currently being evaluated for Brazilian and West African markets, is a leafy vegetable called taioba (*Xanthosoma sagittifolium*) in Brazil and kentumere in West Africa. Similar in appearance to taro from Southeast Asia, it has rootlike corms that are staples in the tropics. The greens are used like spinach. In 2006, agronomist Samanta Del Vecchio Nunes came from Brazil to help the team evaluate growing and marketing taioba to New England's Brazilian and African communities. Target

are planted. Test marketing in Massachusetts demonstrated that consumers are especially interested in buying small (less than eight inches) pipiáns.

Chipilin, a perennial leguminous plant used as an herb in Central America and southern Mexico, is grown as an annual in temperate climates. It is used in soups and in the corn dough for *pupusas*, a tortilla. During testing, customers of Latino stores in Massachusetts showed strong interest.

Hmong Farmers

The UMass initiative is not only helping commercial farmers meet immigrants' tastes, it is assisting a local Asian community to establish its own farms.

Originally from Laos, the Hmong have a language and culture that differs from other Southeast Asian immigrants'.



Photograph by Maria Moreira

Liliana Contreras shows pipián grown at UMass Research Farm.

consumers indicated willingness to buy it at least once a week.

Also in 2006, agronomist Liliana Murillo Contreras of El Salvador helped evaluate marketing strategies for pipián (*Cucurbita mixta*) and chipilin (*Crotalaria longirostrata*), popular El Salvador vegetables. The fruit of the pipián is eaten when immature; the seeds are eaten later or

Given refugee status after the Vietnam War because of their collaboration with the United States, most settled in California and Minnesota. However, some have been farming in Lancaster, Massachusetts, since the early 1980s, where Flats Mentor Farm (FME, <http://nnifp.org/projects/fmfp>) has been of particular assistance.

Located on 70 acres of former river

Vegetables Popular with New England Immigrants

The mission of the UMass Extension Vegetable Team www.umassvegetable.org is to assist commercial farmers on all aspects of their operations, especially production and marketing. For a decade the team has researched ways that established farms might serve immigrant populations. Calabaza, aji dulce, and water spinach are three of the crops tested.

Calabaza (*Cucurbita moschata*) is a popular squash in many parts of the Americas. It is also known as *ayama* (Dominican Republic and Venezuela), *ayote* (parts of Central America) *zapallo* (parts of South America), and West Indian pumpkin (English-speaking Caribbean). It gets added to sauces as a thickener and is used in stews and soups. It can also be a pie filling or a main dish. The texture and flavor suggest butternut squash.

Aji dulce (*Capsicum chinense*) is a small, light-green pepper that turns red if left on the plant. In Puerto Rico, it is known as *ají dulce* or *ajicito*. In the Dominican Republic, it is *ají gustoso* or *ají cachucha*. Aji dulce looks like a habanero pepper but lacks the intense heat. It is used to season dishes and for sofrito, a favorite Latin American sauce.

Water Spinach (*Ipomoea aquatica*), a herbaceous, aquatic perennial in the tropics and subtropics, is a member of the morning glory family and the same genus as the sweet potato. Most of the young plant tissue is edible, but the tender shoot tips and younger leaves are preferred.

A challenge for New England farmers is that importation and interstate movement of water spinach is prohibited by the USDA Animal and Plant Health Inspection Service (APHIS). That is because it is a weed in tropical fresh water. However, it is extremely sensitive to frost and can not survive New England winters, so the UMass Extension Vegetable Team has worked with federal and state regulators to create a permitting system to grow and sell it as an annual in Massachusetts. For more information on these and other crops, see www.worldcrops.org.



Raquel Mendonça, Maria Moreira, and Samanta Nunes at a farmers' market in New Bedford, Massachusetts.

Photograph by Frank Mangan



Top: Pipián sold at Compare Food.
Bottom: Maxixe sold at Market Basket and Demoulas.

Photographs by Maria Moreira

bottom in Lancaster, FMF has since 1985 supported small farmers of diverse ethnic backgrounds with the land, infrastructure, and marketing help needed for successful farming. FMF promotes economically viable agricultural production that also protects the environment.

With resources, hands-on-training, and technical assistance on soil fertility,

irrigation, pest and weed management, and marketing, Flats Mentor Farm also helps beginning farmers increase economic returns and quality of life. During the past six years, with assistance from the University of Massachusetts, Tufts University, and FMF project leader Maria Moreira, some farmers have evolved from growing just enough for their families to selling at farmers' markets

in and around Boston.

In 2006, FMF farmers sold produce at 16 farmers' markets, mostly in the Boston area (the farthest west was Worcester). The number of farmers involved and the sales generated keep increasing.

Many Needs Met

The UMass initiative benefits immigrant consumers, immigrant farmers, and New England's larger commercial farmers. Immigrants gain access to traditional foods, and farmers have a more research-based approach to reaching them. Immigrants are eager for certain vegetables—and will pay for them. For example, the test marketing showed that those who buy spinach when taioba greens aren't available will pay \$6 per pound for taioba, twice the cost of spinach.

The cost to produce abobora hibrida and maxixe is about \$4,000 per acre—a little more expensive than similar crops, such as butternut squash and cucumbers—and some farmers are wary of challenges such as importing seeds. But many also see the opportunity, especially as other new crops gain adherents. The recent surge in organic farms in New England has led to the introduction of higher-priced, boutique crops for upscale consumers and restaurants, and those markets are showing interest in immigrant crops, too.

Critical for growing new crops is a thorough understanding of the market potential, the production costs, and the distribution system. The UMass collaborative hopes to keep expanding its ability to provide that knowledge.

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Endnote

¹ The collaborative is led by UMass Extension and includes the Massachusetts Department of Agricultural Resources, Tufts University, Nuestras Raíces, the USDA Farm Service Agency, and the Southeastern Massachusetts Agricultural Partnership.

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