NOFA Announces Keynote Speakers for the 37th Annual Summer Conference at UMass Amherst, August 12th-14th, 2011: Eric Toensmeier and Dr. Ignacio Chapela

By Mindy Harris, NOFA/Mass Public Relations Coordinator

The 2011 NOFA Summer Conference planning, at this wintry time of year, is well under way. The 37th annual event will take place August 12th-14th, 2011, at UMass Amherst. The theme that has emerged is the impact of agricultural systems on the environment. Two wonderful keynote speakers have been selected, both of whom have demonstrated throughout their careers a great concern for the impact of farming systems on the communities around us – both local and global. The first keynote speaker, Eric Toensmeier, from Holyoke, Mass, is a well-respected author, urban gardener, and consultant, who is known in permaculture circles for his work on Edible Perennial Gardening. Tonesmeier's keynote address is entitled: "Regenerative and Perennial Agriculture for Climate Stabilization" and will focus on the ways in which the agricultural industry should rethink its various growing mechanisms, in an effort to sequester carbon. Eric will also offer three workshops "Commercial Food Forestry," "Breeding Perennial Crops," and "Perennial Crops with Commercial Potential."

There are lots of ways the agricultural and gardening community in the Northeast can sequester carbon – that is, take carbon out of the atmosphere – by the way we plant, grow and sell our food right here at home. That's one of the messages Eric Toensmeier, of Holyoke, MA wants us to hear. Eric advocates for a perennial edible forest-gardening system, which allows perennial food-bearing plants to stay in place over many years and take carbon out of our atmosphere. Tonesmeier advocates that we try to design gardens and grow food in ways that mimic a natural forest ecosystem. Forest ecosystems are models because they can provide food and resources, while taking care of their own fertility and pest control, minimizing human work. Forests are also great models because they mitigate flooding and drought damage, and build fertile soil, full of beneficial microrhizzae and other microorganisms.

Toensmeier has spent twenty years exploring edible and useful plants of the world and their use in perennial agroecosystems. He is the author of *Perennial Vegetables* and co-author of *Edible Forest Gardens* with Dave Jacke. Both books have received multiple awards, including the American Horticultural Society's Garden Book of the Year, *ForeWord Magazine's* Home and Garden Gold Medal Book of the Year Award, Garden Writer's Association's Silver Medal, and the American Library Association's *Choice Magazine's* Outstanding Academic Title.

Tonesmeier also advocates polycultures -- groupings of diverse plants that grow together in close proximity and draw mutual benefit from their shared growing space. Native growers in the Americas introduced polycultures of corn, beans and squash to the agricultural landscape. However, with the advent of synthetic fertilizers, pesticides and mechanical harvesting equipment, combined with economic factors that demand efficiency and scale, growing in monocultures has become the standard of agricultural practice, even amongst some organic farmers. The trick, now, as Eric sees it, is to develop edible perennials that can be cultivated

commercially, possibly in concert with annuals, the latter of which are turned over at the end of the growing season. Toensmeier is paying attention to researchers in Minnesota who are hoping to develop hazelnuts and chestnuts (perennial growers), which could be replicated on a large commercial scale, and which could provide a substitution for the corn and soybeans that are so commonly fed to livestock. With the current naturalistic methodologies we have for breeding plant varieties, Eric is hopeful that the future of agriculture will include and maintain commercially viable edible perennials.

Eric has worked for many Massachusetts farming NGOs. He started and ran the *Tierra de Oportuniades* urban farming project for Nuestras Raíces Inc. in Holyoke, Massachusetts, served as a program specialist for the New England Small Farm Institute, and organized workshops for NOFA Mass in the mid-nineties. His urban homestead is a model of how to apply permaculture to a small space with poor soils. It features over 200 useful perennial and self-seeding species on 1/10 of an acre. Eric's writings and photos can be viewed at www.perennialsolutions.org.

The second keynote speaker hails from the west coast, from the University of California, Berkeley. Dr. Ignacio Chapela is an outspoken and tenured microbiologist in soil-biology and mycology, whose academic research has focused on developing technology to detect genetically modified organisms. He has been affiliated with the Department of Ecosystem Science, Policy, and Management since 1996. Dr. Chapela is known for an article published in *Nature*, in 2001, which demonstrated the presence of transgenes in indigenous maize populations in Mexico. The article was challenged by biotech industry-friendly scientists for supposed methodological issues. Many subsequent studies confirmed the central claim of the article, which was that transgenes, indeed, were present in non-GMO corn populations in Mexico. Chapela was initially denied tenure at UC Berkeley. His academic ostracizing, many felt, was the result of UC Berkeley's strong ties to the biotech industry. In 2005, however, Chapela did receive tenure, and has continued to conduct research and political advocacy as an associate professor. At the time of the tenure controversy, the NOFA Interstate Council sent a communication to UC Berkeley, stating that Chapela should receive tenure.

His biological research, he admits, is influenced by a strong philosophical belief in ethical approaches to agricultural development, and respect for agroecosystems. He has a deep appreciation for microorganisms and microbes, and hopes that his research and teaching with young biologists will help dispel tendencies and biases against microbes as exclusively harmful pathogens. Chapela contends that is impossible to separate out one's political convictions from one's scientific agenda. All research, he says, is political in the sense that every product or project is working towards a particular goal, with a particular bias. Chapela feels that talking about his biases openly actually strengthens the value of his scientific work.

Chapela's main concern is providing farmers, researchers – anyone who wants to know – the ability to detect genetically modified organisms in any location. The current project in his Berkeley lab, the "Ecoscope," is an ambitious effort to produce instrumentation and methods necessary for the first ever mapping capability for microbial life. This project is developed in close collaboration with GenØk: the National Center for Biosafety, Norway. As with many

scientific research projects, the Ecoscope project is currently underfunded, and has a long way to go along its path towards implementation. Chapela recognizes the profundity of the task in front of him. He is hoping to gain corporate support from global engineering or design firms who may have a commercial interest in the technology. The motivation behind this project is transparency. Chapela feels that large biotech firms such as Monsanto and others have a vested interest in keeping the public in the dark. The biotech industry seems to have an economic interest in maintaining a "veil of ignorance" amongst both producers and consumers regarding the presence of GMO material in their fields and food shelves. According to Chapela, anyone who wants to investigate the presence of genetically modified organisms on his/her property currently has to spend lots of money having material tested by a lab. This kind of testing is not easily available, and Chapela has concerns about the legitimacy of testing by a lab or biological industry that has a monopoly on selling such tests. He hopes to develop cheap, reliable, and open source technology for testing for the presence of GMOs. This he says would give people tools they need to better understand the world around them.

Chapela also concerns himself with large-scale political and economic issues affecting farmers and global agriculture. He says the urbanization of poor countries, especially in Latin America and in Africa, is leading to displacement of what once were rich, thriving, inter-connected rural farming communities. Chapela also believes that the same destructive financial products and tools, which caused the 2008 financial market collapse, are at work, leading us globally in a dangerous direction with the trading of food commodities and land speculation in under-developed countries. Chapela founded The Mycological Facility in Oaxaca state, a facility dealing with questions of natural resources and indigenous rights, and collaborates with indigenous communities in Mexico, Costa Rica, and Ecuador on issues of rights to genetic resources.

The announcement of Dr. Chapela's visit to the NOFA Summer Conference couldn't come at a more pressing moment. With the recent deregulation of GMO alfalfa in the U.S., voices like Chapela's, amidst strong corporate interests pushing for unpredictable and environmentally harmful products, are crucial. Dr. Chapela's specific keynote topics will be announced over the course of the next few months.

Online Registration for the NOFA Summer Conference will be also available as of May 1, 2011. We are currently finalizing the schedule of workshops and presenters. If you are interested in leading a workshop, please contact Ben Grosscup, the NOFA Summer Conference Coordinator and Workshop Coordinator – ben.grosscup@nofamass.org or call (413) 549-1568. Sponsorships and Exhibitorships are also now available. Please contact Bob Minnocci, NOFA/Mass Development Director at bob@nofamass.org, or call (617) 236-4893. Please check our website, www.nofasummerconference.org for more information about our keynote speakers, great workshops, and registration information. We hope you are all thawing out after a very cold winter, and we look forward to warm, fun days in August.