



IPM CRSP SUCCESS STORY

Growing vegetables under snow in Central Asia

By Joy Neumann Landis

Dr. Murat Aitmatov, an IPM researcher in Bishkek, Kyrgyzstan, learned new techniques at a Michigan State University student organic farm in 2006 which he brought back to Bishkek. The technique of growing vegetables in unheated hoop-houses, for example, has allowed farmers to grow vegetables even when there is snow on the ground.



Aitmatov (center right) at the farm with his students.



Students show a hoophouse to participants in the 2009 Central Asia Region IPM Forum.

A good teacher looks for ways to make learning come alive. When Dr. Murat Aitmatov from Kyrgyzstan visited Michigan State University’s Student Organic Farm in 2006, he knew he’d found something that would touch his students on the other side of the globe. Aitmatov visited MSU to attend the International Agroecology, IPM and Sustainable Agriculture program and to work with Drs. George Bird and Walter Pett. Aitmatov lives in Kyrgyzstan and is a collaborator with Bird and Pett in the Central Asia Integrated Pest Management Collaborative Research Support Program (IPM CRSP) Project. The project brings together American and Central Asian expertise and resources to solve problems from overuse of pesticides and limited crop diversity.

Excited by what he saw at the student farm, Aitmatov nearly filled a notebook with drawings and notes. The farm was initiated by a group of students who wanted to have a place to apply what they were learning in classes and get their hands dirty with some first-hand farming experience. At the same time, horticulture professor Dr. John Biernbaum was beginning research into four-season farming in Michigan by growing vegetables in unheated hoophouses (simple greenhouses structured from plastic sheeting). The students and Biernbaum saw the strength in combining their interests into the Student Organic Farm.

Both the students’ interests and the concept of protecting vegetables with hoophouses were a perfect match with Aitmatov’s work in Kyrgyzstan. Based on what he saw at MSU, Aitmatov created what he calls “Student Field Schools,” an adaptation of the farmer field schools he uses to educate Kyrgyz farmers.

In a Student Field School, a small group of students plant small plots of vegetable crops and meet weekly to learn and apply best Integrated Pest Management (IPM) practices and techniques. This includes selecting the best varieties, growing pest-free seedlings for transplant, weekly scouting, manipulating natural enemies (beneficial insects and other sources), and harvesting and selling the fruits and vegetables.

In addition, Aitmatov adapted Biernbaum’s work with hoopouses to fit the environment and resources of his students at the Kyrgyz Agrarian University. They use the heat from composting manure to warm small hoopouses they create from bent willow sticks and plastic sheeting. In this way, they can grow vegetables even when snow is on the ground. The students grow a variety of fruits and vegetables including onions, tomatoes, herbs and strawberries. Aitmatov’s IPM CRSP colleague in Tajikistan, Dr. Nurali Saidov, has learned the small-scale hoopouse techniques from him and is teaching farmers in his country this season-extending practice.

Like their American counterparts, the Kyrgyz students report they enjoy the Student Farmer Field School because they are actively farming with their friends and contributing to something productive. They like putting their classroom studies into practice and are preparing to enhance their country’s agriculture with sustainable and environmentally friendly techniques.



Students display a poster listing the natural enemies found on their farm.

Funding

The IPM CRSP is supported by a grant from USAID and managed by Virginia Tech’s Office of International Research, Education, and Development (OIREd).

Collaborators

Karim Maredia, Program Leader for IPM CRSP regional program in Central Asia and professor of international agriculture, Michigan State University
Murat Aitmatov, IPM researcher in Bishkek, Kyrgyzstan

Project Director

Muni Muniappan
Director, IPM CRSP
International Affairs Offices (IAO)
526 Prices Fork Road (0378)
Blacksburg, VA 24061
Phone: (540) 231-3516
Fax: (540) 231-3519
ipm-dir@vt.edu
www.oired.vt.edu/ipmcrsp/

Administrative Principal Investigator

S.K. De Datta
Associate Vice President for International Affairs, and
Director, OIREd
Virginia Tech
236 Burruss Hall
Blacksburg, VA 24061
Phone: (540) 231-6452
Fax: (540) 231-5750
dedatta@vt.edu
www.oired.vt.edu/