[if you have difficulties reading this newsletter see our online version at www.kccua.org/urbangrown.htm]

urban grown

In this issue:

Voices Of Urban Agriculture, Voices Of Change

As Kansas City gears up for the 2011 Urban Farms and Gardens Tour, expressions of hope and determination abound.

For the third time in six years, Janet Brown Moss is coordinating the Kansas City Urban Farms and Gardens Tour for KCCUA. For weeks she and a corps of volunteers (we can always use more of those--contact Janet at the email below if you're interested) have been visiting the sites included on the tour, talking to urban farmers and gardeners and witnessing a city-wide transformation. Thank you, Janet, for sharing your many talents with us.

It's a family and neighbor affair at the Urban Farming Guys in Kansas City, MO.

By Janet Brown Moss

"And the kids love it! And the kids love it!" is a phrase I've heard many times in past weeks visiting with adults about children and youth who have built gardens, planted vegetables, and then tended, harvested, eaten, given away and sometimes sold the produce in neighborhood stores and markets, especially in the urban center of the Kansas City Metro.

"We really want to get to know and grow food alongside our neighbors." "We want to build community with whoever is here." This I have also heard frequently in the same city neighborhoods. Twenty- and thirty-somethings, some with

families, are voicing authentic yearnings. Some of them are young folks who were raised in the suburbs, some in this city or other cities, and they seem to be tired of living lives of individuality and separateness, yearning to work with long-established neighbors to make things grow and bring back the livability of a neighborhood without gentrifying it. At one urban farm they're literally tearing out asphalt from two deteriorated parking lots, transforming them into growing spaces. These are not short-sighted folks.

“We are making a way for the kind of lifestyle we want in the suburbs.” “We are working to make the space on which we live self-sustaining.” Those and similar words are repeated by people living in the center city, north of the river, Overland Park, South Kansas City, Independence. This self-sustainability includes growing vegetables, fruit trees, berry bushes, raising chickens, tilapia, gathering eggs, catching rain water. One even includes growing a crop of black chokeberries (known as aronia berries) in hopes of teaching others how to grow them and reap the health benefits from the high-antioxidant properties.

“Selling food to the restaurant a block away is one of the things we do with the produce we grow.” “How much fresher than that can a dish be when it is ordered off the menu?” “Boys farming here are harvesting vegetables, making, marketing and selling salsa... becoming entrepreneurs as they move into their adult lives.” Such words reminded me that producing quality food has benefits beyond nourishing one’s body. It can nourish one’s livelihood, one’s neighborhood and one’s community.

“Everything in my yard is edible, even the garden on my roof." “After receiving a go-ahead from the next door neighbor, we took down the chain link fence between our yards and replaced it with an herb wall.” “The entire front of our school yard will contain edible plants by the end of this year’s planting season.” The students have researched and chosen what will be placed in the ground.” “We were afraid the lilac bushes that have been there since the school began would have to be removed.” “The students discovered lilac blossoms are edible, so yeah, yeah, the bushes can stay.” Edible landscapes are options that are a way to make effective and aesthetically pleasing use of city land. Some folks are saying, “if we are going to spend time keeping up our yard, why mow and water grass week after week instead of working to tend and water a garden?”

Speaking of watering a garden, how about the farmers and gardeners who are catching rain water to use on plants? A Kansas City corporation has a plot of land that was not going to be developed in the near future. They decided to create a state-of-the-art demonstration garden and created a system to catch storm water in cisterns buried in the ground on the low end of the property. A community garden has built a structure to hold eight rain barrels positioned on their sides, catching more than enough water from the roof of a building next to the garden. “We are collaborating with Master Gardeners to create a demonstration garden across from our neighborhood council building.” “There is a five-year plan in place to create the site and use it to help neighbors learn what they can do in their own yards.” An area agency has worked on a 100-year-old house and its yard to make it energy-efficient with outdoor features that include a composting area, raised beds and cisterns.

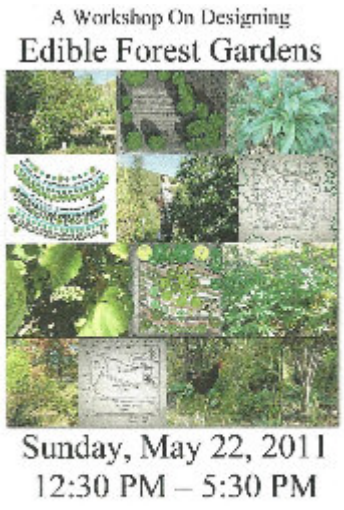
The food revolution began without being televised; with a few brave, stalwart souls making changes in their lives to include growing food in the city. It has manifested itself in every direction of our metropolitan area and is, hopefully, on its way to becoming an everyday kind of thing in every neighborhood. And, now it *is* being televised! What a way to “get your grow on.” See you at one of the 38 urban farms and gardens welcoming your visit on June 25 and 26, 2011.

The 2011 Get Your Grow On--Kansas City Urban Farms and Gardens Tour kicks off with a variety of pre-tour events on June 15. Visit the tour website at http://urbanfarmstourkc.com/ for more information.

Reach Janet at janetbridgeworks@sbcglobal.net.

Edible Forest Gardening Workshop: Sign Up Now

Develop skills to design edible forest landscapes on urban farms and other greenspace.



Sign up for KCCUA's workshop on edible forest gardening. Click image for full details.

By Daniel Dermitzel

As we told you in our February issue of *Urban Grown*, we are getting ready to start an experimental edible forest garden at a quarter-acre site in Merriam, KS, not far from the Community Farm. We have developed a plan, prepared our ground, constructed swales, ordered plants and begun planting an initial round of trees. Now we invite you to sign up for our upcoming *Workshop on Designing Edible Forest Gardens* where we will share with you what we have learned through this project and much more. The workshop will be held on Sunday, May 22, from 12:30pm to 5:30pm in Merriam, KS (click here for details). We are fortunate and grateful to have some of the most knowledgeable local teachers presenting on this occasion as well as the support of the Kaw Permaculture Collaborative and Powell Gardens. We'll be discussing topics such as forest ecology, site selection, design principles, plant choices, establishment strategies and much more. Space is limited, so please register soon by emailing daniel@kccua.org.

On Becoming "Comfortable With Trees"

Several years ago, I visited a place that changed the way I think of my work as a farmer. This place is called the Central Rocky Mountain Permaculture Institute and there I first set foot into an edible forest garden. It was one of the most beautiful and complex food-producing systems I could imagine. Composed of a large variety of diverse species of trees, shrubs, vines and groundcover plants, the system produced a diverse yield of fruits, nuts and other useful crops throughout the season while at the same time providing a rich habitat for insects and other wildlife. It was a very self-sustaining system that--at this stage of its development--didn't seem to require much input anymore of labor or fertilizer or anything else.

During my visit, I asked myself this question: "If I knew something about this approach to growing food, would I change the way I farm?" Over the years, this question never quite went away but, in fact, grew more pressing as I learned more about the advantages of agroforestry systems--advantages such as increased carbon sequestration and soil health, reduced inputs and labor and a more diverse diet.

As it happens, as a market gardener I have no appreciable knowledge of perennial plants, having mostly grown annual vegetables all these years. So how could I get started in the face of so many confusing plant options, design challenges, and the potential for "failure"? I sensed that I wasn't alone in feeling a bit overwhelmed. Martin Crawford, an expert on agroforestry and author of *Creating a Forest Garden--Working with Nature to Grow Edible Crops* once said about farmers in the UK (but perhaps equally true here): "In this country farmers don't tend to know much about trees and foresters don't know much about farming. And agroforestry which is kind of in the middle of the two... is quite difficult for farmers to access because they are not comfortable with trees."[1] Not comfortable with trees. Yes, that pretty much describes me.

Last summer an opportunity came along to explore edible forest gardening here at KCCUA through a fellowship by the Audubon Society called TogetherGreen. It provided the funding for us to experiment with this approach to food production and to learn. We did research, developed a basic forest garden design, chose a site, prepared the ground and got started. We had help from a great group of local experts some of whom will now come together to teach this workshop for urban farmers, gardening enthusiasts, landscape designers and others. They include Steve Moring (Varja Farm), Michael Almon (Forest Floor Permaculture), Matt Bunch (Powell Gardens), Cathy Bylinowski (KCCUA) and Steve Mann (Prairie Ecosystems Management). We invite you to join them to "get comfortable" with the forest by attending this workshop. Thank you very much and we look forward to welcoming you.

[1] from *A Walk in Martin Crawford's Forest Garden*.

To reach Daniel or register for the workshop, email daniel@kccua.org. To learn more about our workshop go to http://www.kccua.org/ForestGardeningWorkshop.htm.

Consensus Still Lacking In Chicago On Proposed Urban Ag Zoning Changes
Limits on composting, garden size are among the sticking points.

Growing Home, Inc. is a Chicago-based non-profit with the mission to operate, promote and demonstrate the use of organic agriculture as a vehicle for job training, employment, and community development. Growing Home develops innovative urban and other agriculture initiatives with economic development potential, and is a leader in advocating for local healthy food systems. Executive Director Harry Rhodes has been with Growing Home since 2001. Mr. Rhodes is among the leading advocates for urban agriculture in Chicago and one of the founders of Advocates for Urban Agriculture (AUA) where he is also serving on the steering committee. Our sincere thanks to Mr. Rhodes for taking time to contribute to Urban Grown.

A high tunnel in full production at Growing Home's Wood Street Farm in Chicago. *Photo by Andrew Collings*

By Harry Rhodes

A little over a year ago, staff members in the Chicago Department of Zoning and Land Use Planning began looking at zoning and other policies in Chicago related to urban agriculture. They put together an interdepartmental Working Group to draw up policy changes encouraging urban agriculture. Unfortunately, in my view, the original Working Group did not include representatives from the urban agriculture community.

Advocates for Urban Agriculture (AUA)--a network of about 400 organizations and urban farmers, that promotes urban agriculture in and around Chicago--heard about the City's Working Group and sent a letter to a Deputy Commissioner, petitioning to be included in this process. We received a very positive response, indicating that the Working Group would be happy to have AUA members as part of the process. Following this response, AUA members have had regular meetings with a representative of the Working Group. He provided updates and listened to feedback. We felt this was a very open process and were hopeful that ultimately it would lead to policies that recognized and supported urban ag.

However, after this initial positive impression, the process proved to be not always smooth and we did not always agree with the City's approach or recommendations. For instance, in July, AUA sent a letter in response to some of the Working Group's preliminary recommendations. One of these recommendations was to limit the size of community gardens to 18,750 sq. ft. We felt that this was a random size that might limit the development of larger community gardens with a focus on high-volume food production. We also had some questions about zoning classifications and definitions of gardens and farms. We suggested adding some language that might make the proposals more supportive of urban ag, and that might clarify some points that were vague to us.

We received a letter from the Zoning Commissioner affirming the Working Group's support of urban ag, but stating that urban ag needs to "coexist with all other uses that are allowed in the City of Chicago…." Furthermore the letter said: "We feel the zoning recommendations as presented, adequately and fairly address urban agriculture plant uses." In my view, this

commissioner said essentially *thank you very much for your input, but we will be doing things our way*. We were very disappointed with this response, but continued to work with our allies in the department to move things ahead.

In December 2010, Chicago's Mayor Richard Daley submitted an urban agriculture zoning ordinance amendment to the City Council. Feelings about this amendment were mixed. On one hand, it recognized for the first time urban agriculture as a legitimate use in the zoning code. This was a good first step that would help Growing Home and production farmers develop more urban farms. Development of Growing Home's Wood Street Urban Farm had taken over three years, partly because there was no zoning use category for urban agriculture.

On the other hand, AUA objected to some of the language in the amendment, such as size limitations for community gardens, or restrictions on composting (which already exist in the code, so we felt it was unnecessary to repeat them in the amendment; we warned city representatives that this language would not be received well, but they refused to budge).

Many other urban ag activists were very upset by the proposed amendment, saying that it would not really help urban ag, that it would not allow them to develop larger community gardens, not allow them to compost on a large scale, and that it would place added burdens on them by requiring fencing, landscaping and parking among others.

While I understand these frustrations and agree that the City did not go far enough, it seems to me and to others at AUA that much of the opposition was based on misunderstandings regarding what the proposed amendment actually said. Therefore, I wrote an op-ed article that appeared in the Chicago Tribune, trying to clarify what the proposed amendment would do; and AUA put together an FAQ, also trying to clarify matters.

Today the debate goes on. I believe that it would be good to get this amendment to the zoning ordinance passed as a first step in recognizing urban agriculture as a legitimate land use in Chicago. It certainly does not go far enough. However, I feel that once this amendment is passed, we will be able to work with our allies in the city to promote new policies, including ones dealing with fish and bees (currently not allowed in Chicago on a commercial basis), that will truly support the development and expansion of urban agriculture in Chicago.

Click here for a news release by the City of Chicago containing information about the proposed amendment. The text of the amendment itself is published here.

Reach Harry at hrhodes@growinghomeinc.org.

Spring Offers Hope: New Relationships sprout, Friendships Deepen
You can help KCCUA nurture the seeds of the new local food system.

Tomato transplants waiting to be planted across Kansas City can be the beginning of a relationship with KCCUA.

By Jill Erickson, KCCUA Development Director

At a very basic level, the relationship between a donor and a charity is give and take: making a gift in order to make a difference. It is like a seed reliant upon the sower. Both relationships work best if nurtured and if all benefit equally. The organization relies on supporters to create a nurturing environment (like soil) for it to thrive and to help meet basic needs (like water and sun.) In return, the seed bears fruit and generates more seeds. At a deeper level, the sower reaps even more than the fruit. The very act of nurturing the relationship benefits both the supporter and the organization.

Charitable donations reflect personal values, perspectives.
For instance, last fall we celebrated our fifth birthday and many friends, old and new, were inspired to buy seeds. They were inspired because of their relationship with us. They believe in good food, they value our good work and they have hope in those seeds. It was fun and it felt good to join in the festivities that evening.

Helping others improves self worth.
In October, we undertook a small renovation of our work space. Donated items poured in as did donations of time and skill! Sid offered to deliver donated goods; John cleaned out a construction site, Rick donated paint, Rocky donated siding, John spent hours building, Larry wired and plumbed to name a few. It felt good to clean out a garage and was satisfying to see a job well done. Many who helped had been a donor, or market customer or volunteer but the experience deepened the relationship for all of us.

Charitable donations offer many indirect benefits.
In relationships, you have chances to learn new things! As the 2011 Urban Farms & Garden Tour approaches, we have renewed many relationships with past sponsors like Chipotle's, *tastebud* magazine, Whole Foods Market and Boulevard Brewing Company. We are excited to welcome new organizations and businesses to join us in hosting this community event. We have learned about UMB's commitment to local non-profits, Harvesters' Plant-a-Row program, 360 Architecture's sustainable urban planning, First Affirmative's passion to create a more sustainable future and others (to see all of our tour sponsors, visit www.urbanfarmstourkc.com).

Charitable donations have many direct benefits, too.
We take our relationship with our supporters seriously by nurturing, listening, learning and working hard to make healthy food and healthy communities the norm in Kansas City. In 2011, we are committed to:

- Graduate four farmers from the Juniper Gardens Training Farm
- Provide 400 hours of technical assistance to growers
- Help start six new urban farms; get 55 new acres into production
- Help two community gardens sell on site; start five new farmers markets in food deserts
- Help 29 farms with bulk fertilizer purchases; 25 growers with a bulk seed potato order
- Reach 6,650 folks through public education events
- Engage 200 volunteers working 1,600 hours on the farm
- Train two Growing Growers apprentices and six core volunteers

Please donate today!
In December I invited readers to join our Annual Fall Campaign to raise $20,000. The response was wonderful; we raised just over $18,500 in 2010. Each and every contribution matters and this is a relationship I respect deeply. Thank you!

This spring, I challenge you to renew or start a new relationship with us; help us continue to plant seeds that will grow a city alive with good food and healthy neighborhoods. KCCUA needs more sowers; we need you now. Make your contribution online at www.kccua.org or mail your contribution to us at: 4223 Gibbs Road, Kansas City, KS 66106.

On behalf of all of us at KCCUA and growers across the metro: Thank you.

Reach Jill at jill@kccua.org.

Field Notes From The Gibbs Road Community Farm

High tunnel planting day at the Gibbs Road Community Farm.

By Alicia Ellingsworth

Farmers are farmers wherever they happen to find themselves. The farm is always on the farmer's mind. Oftentimes, the farm won't leave the farmer's mind even when the job is through. Three crew members have returned from last year. The farm wouldn't leave them. Returning, they've stepped up. They offer ideas for experimentation and tackle skilled projects like putting new poly on three high tunnels. They eagerly take on the training of new volunteers and apprentices. This crew makes what we do easier to get done. Working together, we're able to look at what we have, imagine what we might do differently and set out to do it.

We've come up with some experiments for the field this year. Like summer cover crops. We'll sow buckwheat as a cover crop after early beds of greens and before late summer and fall crops. Buckwheat is a great soil builder. It grows fast- smothering weeds- and takes only thirty days from seed to flower. Buckwheat while not a legume adds nutrients and biomass, thus tilth to the soil. It's also great for area honeybees. We're considering finishing one of the high tunnels with buckwheat this fall. Imagine the happy bees who find flowers in mid October! It needs warm soil to germinate, so plan accordingly.

We'll be doing some companion planting and intercropping this summer. Onions and carrots with tomatoes. Nasturtiums with squash and kale. Kohlrabi and head lettuce with peas. We'll monitor the success, hoping to see fewer pests and perhaps higher yields in these beds. Although not a large farm (we sit on two acres), the production demands are intense. Like most farmers, we need to grow food to stay afloat. Like most farmers, we have tired soil which not only lessens productivity, but invites pest and disease. We're trying to find balance. We're trying to care for what we have in hopes of it providing for us.

We stopped using plastic mulch completely last year and were very happy with the results. The soil had no trouble warming up, natural mulch of straw and hay were able to suppress weeds and hold moisture, and there was no plastic to rip up and throw away at the end of the season. All these reasons made us believers that plastic mulch has no home on this farm.

We'll take the experiments to the tomatoes this year. We've set up test plots in the tomato high tunnel. There is a double dug section. An area of tomatoes to be grown on pallets. Another section to be watered only with rainwater. Another area where tomatoes will be caged instead of trellised and finally, a control section. While we are successful at growing tomatoes (some 5,000 plus pounds in 2010) we see room for improvement. We wonder if, perhaps with some additional care and space, each plant will produce more? We'll see.

It's always a balancing act among what has worked in the past, what just might work this year and what is too risky to try. Farming invites cautious innovation. One thing's for sure, we must eat something. I've got a good feeling about this summer.

Reach Alicia at alicia@kccua.org.

Healthier Rivers Through Urban Agriculture
Productive urban landscapes, if managed correctly, can reduce pollution in local watershed.

In 2010 the local nonprofit Friends of the Kaw (www.kansasriver.org) *included the Kansas City Center for Urban Agriculture in a grant to raise awareness of water quality issues relative to the Kansas River. In this article we hope to contribute to that effort. Our appreciation goes to Laura Calwell, Kansas Riverkeeper for Friends of the Kaw, for her support of KCCUA.*

The Kaw River is one of the region's great natural resources endangered by development and pollution. *Photo by Craig Thompson*

By Daniel Dermitzel

Spring is the time of year when the region's Riverkeepers are particularly concerned about water quality and stream health. With the onset of strong seasonal rains comes the risk of sewer overflows from combined sewer systems throughout the Kansas City Metro area, and the result is increased pollution of our creeks, streams and rivers.

The growing popularity of urban agriculture presents an opportunity to reduce the amount of water and pollutants entering our combined sewer systems. Urban farmers and our community as a whole have much to gain from implementing a few simple techniques to reduce runoff and pollution of our urban watershed. Our productive urban landscapes (i.e., farms and gardens) have the potential to be more environmentally friendly than the many chemically treated lawns and unproductive green spaces we currently see throughout our city. Converting a lawn to an organically managed agricultural landscape can promote a healthy environment and capture ecosystem services (such as food production) which were previously underutilized. But to realize these benefits, it is important that we keep several key design principles in mind as we build our urban farms and gardens.

1. Soil Management

From the perspective of storm water management, an important benefit of creating productive urban landscapes is that farmers tend to reduce soil compaction in the process. Storm water runoff is aggravated by the many impervious and compacted pervious surfaces in our cities.

Urban farmers generally work hard to reverse soil compaction and create spongy, loose soils for their crops to thrive. High organic matter content is particularly beneficial to plant health and also increases the soil's nutrient and water holding capacity. But once we have created healthy soils, we have to prevent them from being eroded or compacted again.

On small urban operations, farm-scale mulching is both feasible and very useful. Under the protective cover of mulch soil is less subject to erosion and compaction by heavy spring rains. However, mulch can slow down spring soil warming and farmers may decide to delay applying mulch until after the soil has warmed up sufficiently.

Special attention is often warranted when farming on slopes; building terraces, contour farming and alternating permanently planted green strips with growing beds are techniques that have been widely used to control erosion on large-scale farms and may be appropriate for small urban farms as well. Also, all farmers should consider ways to minimize tillage as it tends to degrade the soil and create a new layer of soil compaction a few inches down.

2. Nutrient Management

The loss of nutrients from farms and other sources is responsible for such ecological disasters as the Dead Zones in the Gulf of Mexico and elsewhere. Nitrates and other chemicals run off cropland and animal feeding operations and accumulate in our streams which carry them to the ocean. There they cause spikes of algae growth which lead to oxygen depletion and

massive fish kill. Urban farmers should avoid contributing to this problem and apply fertilizers in modest amounts, especially synthetic fertilizers which are highly soluble and easily carried away with runoff. Instead, they may wish to consider organic fertilizers such as compost, well-rotted manures, alfalfa pellets, rock phosphate and similar products. These will stay in your soils longer and release their nutrients more slowly.

Regular soil nutrient testing may be a valuable tool to determine the amount of fertilizer needed and to monitor soil health over a period of years. Using soil test results as well as historical yield data and taking into account any nitrogen fixed by legumes, urban farmers can determine appropriate fertilization levels and avoid over-fertilizing their gardens and fields.

3. Pest and Weed Management

According to information published by Friends of the Kaw, the chemical atrazine is one of the most commonly used herbicides in the US. It is regularly applied to corn as well as lawns, parks and golf courses. The chemical has found its way into our drinking water supply causing some to be concerned about adverse health effects.

Urban agriculture provides an opportunity to take land stewardship seriously in our backyards, vacant lots and other urban green spaces by reducing or eliminating the use of synthetic pesticides and herbicides. Fortunately, it is our experience that the majority of urban farmers uses sustainable or organic practices. For those who feel they must apply synthetic chemicals to their urban fields we suggest following all application instructions on the product label and creating vegetative buffer zones to filter contaminated runoff and reduce chemical drift.

4. Irrigation Practices

Finally, we can serve our streams and rivers by adopting water conservation practices. These include harvesting water wherever possible from nearby roofs or trapping it in infiltration swales on sloped terrain. Both measures will reduce the amount of water that runs off the site—therefore lowering the burden on the combined sewer system and possibly reducing overflow events—and also lower the farm's irrigation bill. However, in a few cases water running across an urban farm may have been contaminated by sources upstream. Such water may not be suited for irrigating food crops and may best be diverted from them.

A simple infiltration swale can reduce runoff and trap water on a sloped site.

The benefits of mulch have already been mentioned but bear repeating here. A layer of mulch will trap rainwater and reduce runoff in addition to reducing the need for irrigation during the hot months of the year. And finally, drip irrigation is a practice which gives the farmer more control over how water flows across an urban farm. The lines slowly deliver the water directly to the crops' root zone, usually without puddles and unwanted runoff; and the lines can be placed under a layer of mulch where evaporation levels are low.

The above techniques are just a few of the steps urban farmers can take to protect the health and quality of our urban watershed and of the streams and rivers connected to it. As we become more productive and ambitious as urban farmers, it will be helpful to spend some time on reviewing our water management strategies and to control the movement of soil, nutrients, potentially harmful chemicals and, of course, precious water from our urban farms. In doing so we will become more connected to the land we farm and better stewards of the natural resources around us. That—in addition to our fresh vegetables—is definitely something worth sharing with our neighbors.

My thanks to the authors of "The River Friendly Farm--Profitability, Stewardship, Qualify of Life" (published by K-State Extension) whose paper was a valuable resource in compiling this article.

Reach Daniel at daniel@kccua.org. For more information go to www.kansasriver.org/wylaw/johnson-co/stormwater-reduction or contact Laura Calwell riverkeeper@kansasriver.org.

Growing Food Where There's No Land: Sack Gardening In Kibera, Kenya

Micro-farming using innovative, appropriate technology improves diets and household incomes among world's poorest.

Once again Urban Grown *is happy to publish a story from our friends in Nairobi about urban agriculture in Kibera. See previous stories published in August 2007, October 2008 and August 2009. Our gratitude goes to the authors for their time and effort in promoting urban agriculture, food security and health in Kibera and for taking time to tell us about their successes.*

Kale growing in sacks at a farmer's house in Kibera.

By Courtney Gallaher, Mary Njenga and Nancy Karanja

Like much of the developing world, Kenya is undergoing rapid urbanization and is expected to be more than fifty percent urban by the year 2030. As urbanization takes place, the population of urban poor also continues to rise, and along with it levels of food insecurity. Urban agriculture has the potential to contribute to food security within cities, and in the past few years, a new form of urban agriculture called *sack gardening* has appeared in the Kibera slums of Nairobi, one of sub-Saharan Africa's largest slums.

With an estimated population of half a million on 2.5 square kilometers (approx. 1 square mile), Kibera is one of the most densely populated informal settlements in the world. With very little open space for urban agriculture, sack gardening is well suited for farming in slums because it allows farmers to grow crops in areas with limited space by planting crops into both the top and sides of a large sack. Sacks are built by filling a 50 to 90kg (approx. 110 to 200 lbs) sack with soil and a column of stones in the middle to improve water filtration. Farmers then transplant seedlings into holes made into the sides of a sack as well as into the top. The majority of farmers grow kale and Swiss chard because these seedlings are easily purchased at local markets, and are also available free from an NGO called Solidarités which offers seedlings and training to farmers. In addition, some farmers have chosen to plant a variety of other crops including green onions, coriander, tomatoes, and several kinds of indigenous vegetables.

One of the major challenges farmers face with sack gardening is obtaining soil to build their sacks. Because of the high population density in Kibera, there are few open places within the slum to dig soil. Many farmers get soil by digging it from the side of the railroad, underneath dumpsites, from the banks of the Nairobi river, or from open fields on the edge of Kibera. Given the lack of formal sanitation systems within Kibera, this calls into question the potential contamination of these soils. Since carrying heavy soil from these areas is an arduous task, women frequently work together in groups to carry the soil and actually construct the sacks. Another major challenge for farmers is obtaining irrigation water. The majority of residents in Kibera must purchase their water at a cost of three to five cents for 20 liters (approx. 5 gallons) of water. Farmers often use upwards of 60 liters per day to water their gardens, so purchasing water can be challenging for families who live on less than two dollars a day.

Catherine with her daughter Grade next to her sack gardens. Farming has helped Catherine with her vegetable business, and given her the opportunity to teach her daughter how to plant a garden.

Despite some of these challenges, the majority of farmers describe having experienced many benefits from sack gardening. A major benefit of sack gardening is, of course, its contributions to household food security. By harvesting kale or Swiss chard from their sacks, farmers are able to eat vegetables in larger quantities, or use the money they otherwise would have spent purchasing vegetables on different types of food. Results from a household survey of farmers and non-farmers in Kibera suggest that not only do farmers consume vegetables more frequently than non-farmers, but they also eat a wider variety of vegetables than non-farmers.

Many farmers also sell some of the vegetables they grow, either informally to neighbors or friends, or at their own vegetables stands. Even if farmers are not able to earn income by selling their vegetables, simply being able to harvest vegetables from their sacks in times of need gives many people a greater sense of security. Significantly fewer farmers in Kibera find themselves skipping meals than do non-farming families in Kibera. As one farmer said, “Sack gardening has helped me get food to eat, which is the greatest task in life... It really helps me because sometimes when I don’t have money, I can go harvest my vegetables and my children will have something to eat. This is the main reason that I love growing vegetables.”

A farmer named Catherine has been able to use sack gardening to provide food for her family and also to sell at her vegetable business. She has seven sacks, planted with Swiss chard and kale, that she has planted along the side of her house. Depending on the rains, she is able to harvest her sacks three to four times per month. After factoring in the cost of purchasing water and fertilizer, Catherine estimates she earns about 500 hundred shillings (approx. $6) per month from selling these vegetables, in addition to money saved by eating her own vegetables. More importantly though, she feels that sack gardening has given her something to keep her busy, and she is happy to be setting a good example for her daughter Grace. She has also been able to teach other friends and neighbors how to plant sack gardens.

Finally, in addition to providing food and money to farmers, sack gardening has helped to develop a sense of pride among farmers who are now able to provide food for themselves and their families. One farmer was proud because she runs a vegetable kiosk and she has been able to provide fresh vegetables to her business. She feels good that she has been able to teach her young daughter how to plant and take care of the vegetables. Sack gardening has also helped build friendship between neighbors who now help each other to construct each others’ sacks, plant and water, and share the food harvested from them. As one farmer and vegetable vendor said, “Sack gardening brings women together... if it weren't for it, I wouldn't have a reason to be with my neighbors... I would only talk to my customers. But [now] we buy water from each other, which creates employment and a sense of community here.”

Please reach Courtney at gallahe3@msu.edu, Mary at M.Njenga@cgiar.org and Nancy at NANCY.KARANJA@cgiar.org.

KC Refugee Farmers Travel To National Farming Conference

Farmers get rare opportunity to discuss farming in multicultural, multilingual forum.

Rachel, Beh Paw, Lay Htoo, Pay Lay and Dena in St. Paul.

By Rachel Bonar and Lay Htoo

The first week of February, I had the privilege of taking four farmers from the New Roots for Refugees program to the Minnesota Food Association’s annual Immigrant and Minority Farmers Conference in St. Paul, MN. Also in attendance were some 180 Karen, Hmong, Bhutanese, and Latino farmers along with 30 interpreters, 30 presenters and 30 exhibitors.

The workshops offered at the conference were very practical, ranging from pest control methods to selling at farmers’ markets. Our farmers were particularly interested

in the high tunnel workshop because of our newly constructed high tunnel at the Juniper Gardens Training Farm. The workshop, in which the conference presenter detailed how she constructed and grew in her high tunnel in Northern Minnesota, caused a flurry of ideas and conversations.

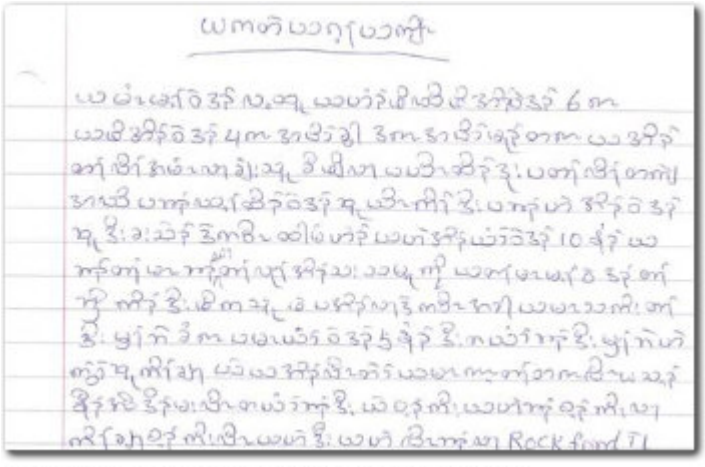
We all sat there, looking at mouthwatering photos of fresh spinach and tomatoes and the farmers decided that planting tomatoes in our high tunnel would be the best plan for this next season; it's a high-dollar crop, very suitable for high tunnel production. The farmers are also interested in planting a sour Burmese sorrel called Chin Baung in the high tunnel. In Burma and Thailand, the plant sets flowers at the end of the season and the flowers are used to make a traditional tea. In Kansas City, our outdoor growing season is not long enough for the plant to flower or turn to seed; but perhaps the extended season in the high tunnel will suffice? I'm hopeful for my first cup of Chin Baung tea in 2011.

Farmers Beh Paw and Pay Lay, with headsets for simultaneous interpretation, are getting ready for the first workshop

I was so pleased to offer the four farmers a training opportunity in their own language. Farming is often a solitary occupation, and large group meetings give us the sense that we are not alone in our profession. For refugee farmers, the opportunity for training of this kind is rare--lack of translation and cultural relevancy often prevents them from joining in some of the farmer education happening in our city. It was an inspiring experience; we all came home excited and dreaming about the coming growing season.

Lay Htoo, a second-year farmer in the program, agreed to share with *Urban Grown* her experience of traveling to and attending the conference. Her writing was translated from Karen by Htoo May.

"My name is Lay Htoo, and I'd like to tell you about my family. I am married, and I have three sons and one daughter. I am from Klay Thoo, a village in the jungle of Burma. I am one of the Karen people, we have our own language and culture. Because the Burmese military came to our village to kill us, my family had to flee to Thailand. We crossed the border and lived in the Tham Him refugee camp. I lived in this refugee camp for 10 years. During that time I worked as a cook. I worked with my friend Beh Paw cooking and teaching other women to cook for five years, and then Beh Paw came to the United States. I missed Beh Paw too much. When Beh Paw moved to the United States, I decided to apply for resettlement too. It was scary, but I decided that I wanted a new life for my family. I was resettled to Rockford, IL.



We thank Lay Htoo for sharing her story with us.

I lived in Rockford for five months and we could not find work. Beh Paw told me that in Kansas City, we have jobs available and also gardens. I wanted to move to Kansas City, where Beh Paw was living. I wanted to have a garden. I had to pay someone to drive me to Kansas. My husband and my son got a job very soon after we moved here, so we rented a house. I wanted to work in the garden, so I talked with Rachel about starting my own farm in Kansas City.

My first season working with the New Roots for Refugees program was in 2010. I worked in the garden, and everything went well. This past October, when things at the garden slowed down, I started going to school to learn English. I kept going to meetings for the garden during the winter, learning about many topics. During one of the meetings we started

talking about a big farmers meeting in St. Paul, Minnesota. I heard that there were going to be many refugee farmers talking about farming in the United States. I said, 'Yes! I want to go on this trip.' I was so excited.

Beh Paw, Pay Lay, Dena, and myself left for Minnesota on a Thursday. Somewhere in Iowa, we stopped at a gas station and went to the restroom. On accident, we went to the boys restroom, because I didn't read the sign correctly. We laughed so hard.

It was a long drive, but we finally made it to St. Paul, Minnesota. There is a big Karen population in Minnesota. I was able to meet with family and friends that I hadn't seen since the refugee camp. In the days, I went to the farmers meeting, and at night I would stay up with my friends talking about the past and our future until late in the night. In the mornings, Rachel picked us up and we went to the meeting. At the meeting they had headsets so that we could all hear the presentations in our own language. I had to give them my ID to get the headset for the day. I had to turn the dial to the correct number so that I could hear the Karen translator. I went to my seat and listened and then I learned about a lot of things. I learned how to do things to start my own farm. I went to different meetings about high tunnels, growing organically, using row cover to keep bugs away, and about selling at farmers markets.

I am thankful to God that we had safe travels to Minnesota, and I'm excited to plant new things in this upcoming year, and I pray that the bugs will stay away from my vegetables this year. God Bless and Thank You."

You can reach Rachel and Lay Htoo at rbonar@catholiccharitiesks.org.

Calendar Of Events

Gibbs Road Community Farm Annual Transplant and Produce Sale. Saturday, April 9, 9am - 1pm. You will find everything you need to plant your home garden: kale, kohlrabi, tomatoes, herbs, peppers, swiss chard and more. Plus, all the gardening advice you can stand! All transplants are certified organic and will be sold below market price. You will also be able to buy freshly harvested spinach, swiss chard, kale, salad mix, carrots, herbs and cucumbers, and see the field where they were grown.

Region 7 US EPA Environmental Justice Program Presents an *Urban Agriculture Workshop*. April 8-9. Kansas City Public Library, Cohen Center. 4801 Main St., Kansas City, MO. Learn about urban gardening on vacant lots and brownfields in your neighborhood. With presentations on potential soil contamination, best management practices, gardening basics, raised bed construction, soil health and more. Free and open to the public. Friday, April 8, 6pm - 8:30pm; Saturday, April 9, 9am - 3:30pm. For more information and to register contact Brendan Corazzin at corazzin.brendan@epa.gov or 913-551-7429.

What Does the Farm Bill Have to Do With Me? A forum on the 2012 farm bill. Thursday, April 28, 6pm - 7:30pm. All Souls Unitarian Universalist Church. 4501 Walnut St., Kansas City, MO. Join the Kansas City Center for Urban Agriculture, the Greater Kansas City Food Policy Coalition, and the Missouri Coalition for the Environment to learn about how the Farm Bill affects our community and what you can do to make sure your priorities are represented in the legislative process. Speakers: Paul Johnson, farmer and lobbyist, Kansas Rural Center; Dr. Mary Hendrickson, Director, Food Circles Project, University of Missouri; Brad Redlin, Isaak Walton League. Seating is limited, we encourage you to RSVP and reserve your seat by clicking here.

Garden Center Association of Greater Kansas City presents *Planting Heirlooms in Your Garden presented by Diane Ott Whealy, co-founder and vice president of education of the Seed Savers Exchange.* Saturday, May 21, 10 am. Discovery Center, 4750 Troost, Kansas City, MO. The event is free and no registration is necessary. Ms. Whealy will share tips and suggestions on growing your own heirloom vegetables. Seed Savers is a grassroots network of about 10,000 gardeners, orchardists, chefs and plant collectors who maintain and distribute heirloom varieties of vegetables, fruits, grains, flowers and herbs. For more information about the

scheduled program, visit www.GardenCenterAssociation.org or contact Chuck Robinson at chuck@gardencenterassociation.org or 816-507-8328.

A Workshop On Designing Edible Forest Gardens. (see related story above) Sunday, May 22, 12:30pm - 5:30pm (BYO bagged lunch at 11:30am). 5425 Mastin St., Merriam, KS 66203, site of KCCUA's experimental forest garden. Join us to learn about this sustainable method of perennial food production that is so much talked about. See the step-by-step design process behind KCCUA's 1/4 acre experimental forest garden. Presenters include farmers, horticulturalists and permaculture designers including Steve Moring (Varja Farm), Michael Almon (Forest Floor Permaculture), Matt Bunch (Powell Gardens), Cathy Bylinowski (KCCUA) and Steve Mann (Prairie Ecosystems Management). This workshop will address basic design principles, forest ecology, plant choices and how to get started. Space is limited, so please register by email to daniel@kccua.org. $10 suggested donation. To get complete information download the workshop flyer or contact Daniel Dermitzel at daniel@kccua.org.

UMB Big Bash. Thursday, June 16. Doors open at 7pm. Midland at AMC, 1228 Main Street, Kansas City, MO. KCCUA is honored to have recently been named as the Lead Beneficiary for the 2011 UMB Big Bash. Ticket price includes appetizers of delicious local fare; two drink tickets to enjoy beer, wine and a signature UMB Big Bash cocktail; and an exciting concert by Kenny Loggins! Co-chaired by Peter deSilva and Mariner Kemper with the support of UMB Financial Corp. associates and other volunteers this event will benefit KCCUA! UMB Big Bash is expected to become annual event and we are thrilled to be one of the first organizations chosen to be involved in this creative event supporting and promoting the important work of community nonprofits. For more information visit http://www.umbbigbash.org/BIGSHOW/index.htm or email Jill at jill@kccua.org. Cost for this event: $99.50 Balcony 1, $69.50 Balcony 2, $49.50 Chandelier Bar (Standing Room Only); tickets are now available at www.ticketmaster.com.

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