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**To:**

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**Nearly 1,500 Participate in "Food From the City For the City"**

*Long-time Kansas City organizer and farm tour coordinator reflects on "movements", "riding the wave" and the importance of "both/and".*



Urban farmer Sherri Harvel (left) talks to visitors at her Root Deep Urban Farm in Kansas City, MO.

By Janet Moss

Folks interested in urban and local food production found much to enjoy and learn during the ten days from June 18-28, 2009--the ten days also known as the "Food from the City for the City, Urban Farms and Gardens Tour." We counted more than 2,000 visits to 28 urban agriculture sites by more than 900 individuals and families on *Tour Day* (June 28), including young children with their parents, teens without their parents, young families, new and long-time and used-to-be gardeners and many others. An exciting partnership with the Kansas City, MO, Public Library System and various community groups enabled us to offer pre-tour events that attracted more than 500 children, youth and adults learning about the myriad ways people grow, purchase and eat healthy food in the city. The beautiful booklet ([download it here](#)) designed and printed by Boulevard Brewing Company and banners designed and printed by Patti Banks & Associates carry an educational value far beyond the tour. All

of this activity generated much discussion and thought about urban food sustainability among Kansas Citians, something of lasting value even to folks who were unable to participate directly in the tour.

And what happened the day after *Tour Day*? Well for me and mine it was a great sigh of relief, gratitude and wonder; wonder of the fantabulous, fun, farmers and grand, gifted, gardeners; wonder of the tremendous interest by tour-takers spending hours on a hot summer day focused on urban food production; wonder of the musicians, storytellers, nutritionists and chefs who enhanced the mood of the day with their arts; wonder of folks who served as ticket-takers and greeters of urban ag tourists. More than 300 folks volunteered to bring about the tour and pre-tour events. What a wonder that is. Okay, enough wondering. Now what?

Jim Wallis, CEO of *Sojourners, faith, politics, culture* visited the area some years ago and said something like: We don't start movements. We prepare people to be ready to join a movement when the time comes. As a grassroots organizer and educator since 1972, I have had opportunities to help pre-educate (prepare & educate) an enthusiastic citizenry to join several movements in the Kansas City area; so I know the excitement of riding the wave of a movement. Urban and local food production feels like that. Many elements are fueling the wave: economics, food, health and safety, enjoyment of food taste and preparation, enhancement of spiritual well-being and, of course, a growing awareness that it is not always smart to rely on the system to provide security.



Janet Moss enjoys a laugh on "Tour Day".

So what do we do to balance riding the wave, continuing to grow a grassroots effort and helping it morph into what is needed to bring lasting benefits for an entire urban population? It is so exciting at the beginning of a movement, when the initial paradigm shift is happening. This attracts some of the most interesting folks; people who are dedicated to an idea, their creative energy focused on support of the idea and the movement. These folks are sometimes called early adapters and I have found them to be some of the most fun folks with whom to work and play. Lucky me: there is a benefit package for grassroots folks. Unfortunately, it isn't financial.

Along the way, some folks highly dedicated to the idea begin wanting to pay a mortgage, start a family, etc., and use their creative energy to continue promoting the idea *and* make a living. That works for some. Meanwhile the marketing and MBA folks notice the activities of these early adapters. They're dedicated to making what they consider a reasonable profit and promote and work the idea. Both of these early proponents in a movement are both/and types, not either/or. We can sustain healthy food *and* pay the bills. It is helpful for me to note the order of priorities for myself and others as we find ways to work together in the movement.

Where do we grass/foodrooters go and what do we do next in collaboration with the folks who will do the work of institutionalizing healthy, local food? That is the big question and precipice we face. If collaboration, relationship and honor of diversity are used to the advantage of the individual and common good, we will ride the wave, increasing healthy, local food production. If we cannot find ways to work together we could crash on the shore of pseudo local food safety, facing the kinds of restrictions hampering local food production that are currently making themselves known. We need to think about these things and support good work, each playing our role in promoting local food production and distribution and see where the tide will carry us.

With this third biennial Urban Farms and Gardens Tour, we tried some new approaches and events and that was very rewarding and exciting. Soon we will meet with the farmers, gardeners and volunteers to assess what worked and what didn't and to get ideas for the 2011 tour. In the meantime, happy growing and eating! Bye for now and keep in touch.

You can reach Janet at [janetbridgeworks@sbcglobal.net](mailto:janetbridgeworks@sbcglobal.net). KCCUA would like to thank Janet Moss for all her hard work and dedication to making this year's farm tour a success.

### Local Government Issues Proclamation in Support of Urban Agriculture

Unified Government of Wyandotte County/Kansas City, KS, declares June 28, 2009 "Kansas City Urban Farms & Gardens Day."



KCCUA board member Beverly Pender presents to the Unified Government of WyCo/KCK. UG Mayor/CEO Joe Reardon proclaims 6-28-09 "Kansas City Urban Farms & Gardens Day."

The mayor of Wyandotte County/Kansas City, KS, Joe Reardon, sent a signal of support and appreciation to the urban agriculture community when he signed a proclamation declaring the day of the 2009 Kansas City Urban Farms and Gardens Tour "Kansas City Urban Farm & Gardens Day."

On June 25, KCCUA's board member Beverly Pender—a long-time Kansas City, KS,

urban farmer herself—presented to the commissioners of the Unified Government about the benefits of farming in the city. Afterwards she received the proclamation on behalf of all urban farmers and gardeners in Kansas City. It reads in part:

- Whereas, productive gardens and farms make our cities more beautiful; and
- whereas, they feed people, lower food costs, provide income, raise property values and reduce crime; and

- whereas, they transform empty lots, capture rain water and teach life lessons in love caring and responsibility; and
- whereas, in times of stress they offer solace and therapy; and
- whereas the 2009 Kansas City Urban Farms and Gardens Tour event has been organized with the great minds, big hearts and generous hands of many individuals, business and organizations.

KCCUA is very grateful to Mayor Reardon for this gesture of support for urban agriculture. Many thanks also to our partners and friends in local government across the metro.

### **"Those Used To Be Our Asparagus Fields"**

*Learning from the past about tomorrow's local food system.*



Spinach harvest at DeBrabender Farm in Johnson County, KS, 1949.

By Katherine Kelly

In 2005, I got to drive around central Wyandotte County with Joe Steineger, truck farmer and former Kansas City, KS, mayor as my tour guide. Mr. Steineger is in his 70s and grew up on a fruit and vegetable farm in Wyandotte County. We had just started the KC Center for Urban Agriculture.

Joe grew up on his family farm during the heyday of local fruit and vegetable farming, in the 1940s and 1950s. During that time, farmers were seeing the benefits of the relatively new innovations of tractors, farm trucks, and refrigeration, and the populations of our cities were growing, expanding the market for fresh produce. During and immediately after World War II, these local farmers were the back-bone of US efforts to achieve food self-sufficiency; they were the flip side of the Victory Gardens.

As we drove around town, Joe Steineger pointed out sites he remembered from growing up, and talked about the changes since then. At one massive warehouse, surrounded by blacktop and semis, he said bluntly: That used to be the best potato farm in all of Kansas. They used to ship potatoes all over this area. As we crossed I-70, he waved his hand casually at the busy lanes of traffic and said those used to be our asparagus fields.

Since then, I've talked to other old-time farmers and people in the produce industry about their memories of Kansas City back then. Their stories have reshaped my understanding of what is possible here in the Midwest for food production. Their stories have also deepened my understanding of how we have dismantled what was a thriving agricultural industry, and the price we've paid for doing so.

In the late 1940s and early 1950s, there were 7,000 plus acres in vegetable and fruit production in the three counties of Wyandotte, KS, Johnson, KS, and Jackson, MO. According to the growers I talked to, those acres pretty much fed Kansas City. Some of the produce was shipped out (particularly to the north in the early part of the season, so the farmers could get the first to market price premium), some produce was shipped in on the trains and on trucks, but on balance, their perception was that locally-grown fruits and vegetables supplied the region's nearly 800,000 residents with their daily food.

Most of the farmers were relatively new immigrants; they came to the US from Belgium and Germany. Others were African-American farmers from the south. They bought land at the edges of Kansas City, KS and MO, or along the river bottoms, and they put their agricultural skills to work feeding people. Farmers like the DeBrabanders, the Bouttes, the Duseliers, the Riekes, and the Van Hees produced on farms as small as a few acres and as large as 20 to 35 or more acres.

Their farming and business skills were developed over decades; they grew up farming, spending their earliest years in the fields and becoming part of the regular labor force once old enough. They inherited generations of knowledge; vegetable farmers' children became vegetable farmers and then their children kept on with the family livelihood.

The daily farming schedule began at 7am in the field, planting, harvesting, and weeding. Then a break for lunch, and back to work until around 5pm. During the war, horses and mules were the main power source; later, Allis Chalmers, Farmalls, and other small tractors did the heavy-lifting. In the evening, after a day in the field, the father of the family would go to bed, sleep from around 8pm to 11:30pm and then he would get up and drive the produce to City Market, where he would sell to grocery stores and restaurants until sell-out, or until the morning shift of retail farmers would move in to sell to the general public. He'd head home, take a nap, and start all over again, sometimes with an afternoon nap. The family lived this schedule every day of the week except for Tuesdays and Sundays.

Supporting the farmers was a local agriculture industry--growers and businesses that supplied them with seeds, tools, chemicals and fertilizers. The farmers had an arrangement with the Kansas City stockyards where they picked up manure to spread on their fields, doing the stockyards a cleaning service and improving their own soils and yields. There were multiple and reliable outlets for their produce--City Market where they could sell both wholesale and retail, local grocery stores and restaurants, and, in smaller quantities, the hustlers who bought produce from the farmers and then drove around city neighborhoods, selling it off the back of their trucks.

This was a stable and thriving industry for Kansas City. Farm families ate, paid their bills, and hired extra field help, they invested in new equipment and land, improved their homes, and put some money in the bank. If they weren't quite living a middle class lifestyle, they did alright for themselves and their children. They were part of a thriving industry; businesses like Abelman Fisher, Planters and Standard Seed paid wages, taxes, and were active parts of the local economy.

For consumers, vegetables were more expensive then, taking up a relatively larger part of a family's income. They weren't as cosmetically perfect as what we get today; though according to a long-term study by the USDA, they were higher in nutrients. They probably tasted better as a general rule; at City Market, the restaurants and grocery stores were buying produce that was picked the day before. Between the taste and the higher nutrients, they arguably got more value for their money. A higher percentage of their food dollars stayed in the local economy; the dollar they spent on vegetables went to the farm family, who used it to buy seeds from a local business or to pay a hired hand; then the local business or hired hand spent it again, locally.

In the late 1950s though, this food industry started to change, and the local farmers began to advise their children that there wasn't going to be a future in the vegetable industry and began to get out themselves. The new interstate highways came in; I-70 paved over asparagus fields and tore down fruit orchards. Refrigerated trucks began to haul produce in from Florida, California, and Texas, bringing in boxes of produce that were not only out-of-season but also carefully sorted by size and cosmetics, and that were cheaper, financed in part by cheap migrant labor. Local production--shaped by local weather conditions and premised on a living income for the farm family--became suddenly too expensive, too unreliable, and not cosmetically perfect enough.

At the same time, the Kansas City metro area began to expand rapidly. Suburban developers began buying up the productive land in Johnson County; subdividing fertile fields into lots for single family homes with two-car garages. The river bottom land in Wyandotte county was bought up, paved over, and enormous warehouses were built to serve the new interstate trucking industry; river bottom soils that used to produce potatoes and sweet potatoes became building sites for warehouses where boxes of produce from other parts of the county and the world were refrigerated and sorted for local distribution.

And, importantly, our collective knowledge of food self-sufficiency began to be erased. We developed our current belief that huge swaths of the country can't and shouldn't feed themselves, we should instead rely on California, Florida, Texas, and other countries for the food we eat every day. We forgot or were never told that there used to be thriving vegetable farms that ringed Kansas City and that supplied people with pretty much every fruit and vegetable they ate.

Today, the three county area has less than 700 acres in active fruit and vegetable production. For every 100 people living in Jackson, Johnson, or Wyandotte County, we have fewer than 20 square feet of land growing the fruits and vegetables we eat--or should eat--every day. And the multi-generational knowledge base of commercial vegetable and fruit production is now held by a handful of people, some farming still, but most of them now retired or dead.

Our food today takes up less of our household income than ever before. We can get the food we want, when we want it. Rather than buying vegetables scarred by last week's hailstorm in Shawnee or small ears of corn grown under local drought conditions, we can buy the most perfect looking produce all the time. The farmers' children and grandchildren no longer have to work 100 hour weeks in the field, they have jobs like the rest of us, with vacation time and health insurance. The grocery stores and restaurateurs aren't down at City Market at two in the morning haggling over tomato prices; they just call their produce broker and place their order a week or more in advance and it gets delivered right to their door. Isn't all this good for Kansas Citians?

These changes in the way we feed ourselves and our families have wrought unexpected consequences and make us vulnerable in ways never imagined when the first local grocer opened up the first box of uniform, unblemished heads of iceberg lettuce, thrilled at its low price and knowing that there was more where that came from.

Since we exported vegetable growing out of our daily lives to states and countries far away, children, and the adults they grow into, no longer know where the food they eat comes from. It has now become a truism that children and adults no longer really like vegetables and our fruit and vegetable consumption levels have dropped significantly over the last fifty years.

It should also concern us that we no longer have the knowledge, the land, or the infrastructure to grow a meaningful percentage of our calories locally. Dr. Rhonda Janke at Kansas State University put together numbers for Kansas that show that, if we stopped shipping tomatoes in from out of state, we would run out of local supply in about 5 days; we grow

enough lettuce to feed Kansans for only about 1/3 of a day. We could, however, eat hamburgers for 17 years, and bread and wheat products for 27 years. I don't have comparable numbers for Missouri, but while they might look a little bit better, they would still not be what most of us would consider secure.

If you ask anyone what was the best tasting tomato or ear of corn they've ever eaten, you can bet they'll remember a home grown tomato and a dozen ears they bought direct from a farmer, in late July. If part of our efforts to reduce obesity, diabetes, and diet-related diseases is to encourage people to eat more fruits and vegetables, won't this work better if we offer them fruits and vegetables that taste really good and really fresh, and that are at the peak of their quality and nutrient levels?

The lessons I take away from this history are that we can, in fact, grow fruits and vegetables in the Midwest, not just corn, wheat, soy beans and livestock; that feeding people has provided, and can again, viable livings for farmers and others in the food industry; and that we have a lot of work to do to recreate a thriving and stable local food industry. We are starting virtually from scratch. This is a worthy effort to be in, though, to recreate the local fruit and vegetable industry that existed less than 60 years ago. If we are successful at it, we will eat better, value our food more, be healthier, and, as a community, be more self-sufficient and food-secure.

Information for this article was gathered through informal interviews with Joe Steineger, Lorene and Paul Rieke, Albert and Rita DeBrabander, Joe Boutte, Berniece Van Hees (by phone), and Shiloh Garies, as well as from other sources.

Reach Katherine at [katherine@kccua.org](mailto:katherine@kccua.org).

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## Field Notes from the Kansas City Community Farm



Tomato harvest at the KC Community Farm. Photo by Laura Shannon.

By Alicia Ellingsworth

Like many others, I've been reading *Farm City, The Education of an Urban Farmer* by Novella Carpenter in a few stolen minutes of early Sunday before my daughter wakes. Sadie, our nine year old kitty, stepping onto my lap greedily pleading for a scratch, reminds me of many obligations vying for time during this busy season of life. The grass growing tall in our shady yard is another reminder. Giving a bit of attention to each captures me, and I'm surprised by the first signs of change. Fall crops have been sown into the field; we've turned the corner away from summer. Goodbyes have been said to half of this season's field crew. I thank them for their tireless work. We've had a great crew this year.

The cool, wet weather challenged us this spring, but now with a good harvest we are feeling the effects of the recession that has hit the rest of the world. This farm, run to be a fiscally responsible and sustainable model for up-start farms, must keep income and expenditures balanced. I remember a beekeeping workshop a few seasons back led by Gunther Hauk of Spikenard Farm; the question of Colony Collapse Disorder (CCD) was raised, the phenomenon of bees not returning to the hive and a seemingly healthy hive dying. Many theories exist, but no clear causes are apparent. Mr. Hauk answered the question in a

surprising way. He was grateful for CCD. He then explained that it has demanded that we stop and think; and consider our actions and their effects. That without this wake-up call, we would go on believing all is well. With that in mind, I try to stop and think how my actions have led us to this time. I find mostly it has been my inaction. This leads me to investigate ways to increase winter production at the farm. Beyond added farm income, high tunnel growing can feed people locally and reduce transportation costs. I welcome this challenge. We are currently developing a timeline and planning crops and will build on what was learned last year.

As I head into my third season at KCCUA, I am hopeful. We have the high tunnels. We have a great group of people collaborating on many projects. We feel the urgency. I plan to improve soil quality and to be a better teacher. I intend to stop and listen more and catch the clues hidden in daily work. In doing this I have hope that this urban farm will grow itself and its farmers in preparation for the seasons and challenges ahead. In the meantime, I will pick more beans and sow more seeds.

Reach Alicia at [alicia@kccua.org](mailto:alicia@kccua.org).

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## KCCUA Funding Update

Farmer training receives funding in KCK.

By Semie Rogers



The Juniper Gardens Training Farm is the heart of KCCUA's Farm Business Development Program in Northeast KCK.

Local health foundations have stepped up with strong support for the Farm Business Development Program at Juniper Gardens in northeast Kansas City, KS. The best preventative health care is eating fresh produce and exercising, and that's what urban farms are about. Menorah Legacy Foundation and the Healthcare Foundation of Greater Kansas City have been excellent supporters of KCCUA's work in the past, and have increased that support this year. The Healthcare Foundation pledged \$150,000 over three years to the Juniper Gardens project. Funds will support program activities that help neighborhood residents and refugees start their own small farm businesses.

We're excited that the grant will also support a research study by K-State sociologists Spencer Wood and Laszlo J. Kulcsar.

We're hoping to get good data to show the positive impact that the urban farms, the community gardens, and farmers' market have on diet and health in the neighborhood. The study will use community-based participatory research methods. It will include input and questions from community residents; it will be a document that is meaningful to the neighborhood and that residents can use to transform their community. We also hope the study will be useful to the national urban farming movement, as more communities across the country transform neighborhoods through urban farming (look for more on this research project in a future issue of *Urban Grown*).

Tilling will be easier at the Farm Business Development Program thanks to a Kansas Community Services Block Grant. The grant will buy a tiller, tractor and bucket-loader for the Training Farm at Juniper Gardens. Now we can till between rainstorms without having to lease a tractor multiple times. Not only will this make for more efficient use of staff time and resources for the Training Farm, but we will be able to help other urban farmers and gardeners in the neighborhood prepare their land for planting.

Menorah Legacy Foundation has granted KCCUA and Catholic Charities \$20,000 for programming at Juniper Gardens. Menorah, the foundation formed when Menorah Hospital was sold, sought proposals that improve health in mind, body and spirit. Menorah's holistic approach to health is a great fit for KCCUA's work at Juniper Gardens. As community members become active farmers, gardeners and consumers of good food, we expect these efforts will be a catalyst for broader neighborhood change for the better. As individuals grow and harvest, they reap a joy that comes of connection with the earth and with self-sufficiency. As the land becomes more beautiful and productive, individuals and neighborhoods will be uplifted in spirit.

With gratitude to all our funders for helping Kansas City grow good food!

Reach Semie at [semie@kccua.org](mailto:semie@kccua.org).

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## Raze a Parking Lot and Put up a Paradise, Part Two

*Hydroponic crops grow green on Philadelphia brownfield.*

By Mary Seton Corboy & Crosby Hill, Jr.

*(This is part two of a two-part series; in [part one](#) Mary discusses building raised beds on a concrete slab at Greensgrow.)*

*In March 1998 Tom Sereduk and I began our quest to open an urban farm in Philadelphia, PA. Many people thought we were crazy and few thought we would succeed. We had, quite frankly, more dreams than resources, more ideas than reality. Today Greensgrow Farms continues. Seventeen employees work at the 1-acre farm, a former EPA Super Fund site. A vibrant nursery specializing in plants for urban growers and heirloom vegetable starters and a 300-share CSA and Farm Stand share space with composting toilets, green roofs, vermicomposting, a biodiesel processor that turns 150 gallons of grease into fuel a week, honey bees and hydroponics systems. Hard work, dedication, tears and blisters, sunscreen and thinking combined with a keep it simple stupid strategy turned an abandoned galvanizing plant into our farm.*



Hydroponic production at Greensgrow, Philadelphia.

Searching for ways to farm in a degraded and post-industrial section of Philadelphia, Greensgrow began exploring hydroponics as a possible system that would allow us to produce commercial volumes of fresh produce for sale to area restaurants. Hydroponics is the process of feeding plants through the passing of water over the root area. Many people think hydroponics is a new technology but hydroponic gardens have been documented as early as 600 BCE. The ruler of ancient Babylon, King Nebuchadnezzar II, had a hydroponic garden that was considered one of the Seven Wonders of the World (see [Hanging Gardens of Babylon](#)).

In the mid-20th century, European scientists began studies using water with dissolved minerals to see if plants needed the presence of soil to grow. Dr. Allen Cooper of England developed the Nutrient Film Transfer (NFT) system of growing which today is widely in use. With NFT it is possible to grow many crops--vegetative and fruiting--in a resource-efficient fashion. NFT works by providing a highly oxygenated, slowly moving stream (a "film") of dissolved nutrients to the plant roots. Plants are placed at intervals along a sloped gully and grown with their root ends constantly moistened by the nutrient-enhanced water. NFT treats the plants directly with specific nutrient solutions prepared by the grower and delivered to the plant roots via a submersible pump. This pump continually recycles the water back into the system allowing the grower to monitor the nutrient levels in the water. The science of hydroponics comes in to play here as the nutrients and salts must be kept stable to insure that the plants are being fed properly. Without proper feeding, they become less disease resistant.

Why hydroponics? There are many reasons why a farmer (especially an urban farmer) would choose hydroponic farming as a means to produce crops. In many urban environments, especially on so-called "brownfields", the soil may be contaminated in which case the options include building raised beds or hydroponics in one of its many iterations. Greensgrow started with a large outdoor hydroponic system covering an entire city block (36,000 sf). The tables were made from PVC held together with fence clamps. The gutters were literally rain gutters--a whole shipping container of them sent from Michigan.



Hydroponic lettuce production at Greensgrow.

The founders of Greensgrow, Tom Sereduk and Mary Seton Corboy, tested their math, design skills and friendship by laying out a grid of sloped tables into four separate sections that would each be its own growing zone made up of approximately 3360 linear feet of gutters. Each week Greensgrow would seed approximately 12 varieties of lettuces (over 12,500 plants) into Oasis cubes (an inert growing medium) and place them into a germinating chamber. Once germinated, the cubes would go to nursery tables for ten days and then into the hydroponic system. Hydroponic crops have a shorter plant-to-harvest time and more can be planted per square foot of growing area than in conventional soil planting. This allowed Greensgrow to begin a production-harvest cycle in a very short time.

In the day-to-day operations of this cycle are various tasks that can be efficiently handled. An average day begins with making sure all plants are healthy and plant irrigation parts are in proper working condition. Plants that look diseased can be immediately spotted and removed from the system. This is one of the advantages of a hydroponic system. In a soil medium many times pathogens are spread through the soil. In the worst case the crops may have to be harvested and the beds treated or sterilized. In a hydroponic system, the diseased plants can usually be removed and the circulating nutrients drained. A non-toxic, organic oxidizing or clearing agent can be run through the system and replaced with fresh water until the nutrients are added--catastrophe averted!

In general, the farmer has a faster turn-around due to the speedy growth that can be achieved with hydroponics. This allowed Greensgrow's operation to be literally up and running and selling product within three months, allowing immediate cash flow and moving the farm one step closer to the goal of self-sufficiency. Today Greensgrow operates a smaller hydroponic system because we have turned some of our space over to other growing systems including our large raised beds. In addition to lettuce we grow hydroponic eggplant, tomatoes, peppers, basil and other crops. The outdoor system is operational during the warm season only (it does not tolerate frost) and has been secured sufficiently to the ground to resist strong winds.

For more information on Greensgrow's hydroponic system visit their new website at [www.greengrow.org](http://www.greengrow.org) which should be up and running by the middle of August. A wealth of detailed design information for hydroponic systems is also available on the internet including at [www.YouTube.com](http://www.YouTube.com).

You can reach Mary Seton Corboy at [mary@greengrow.org](mailto:mary@greengrow.org).

## Urban Farmers Earn Income from Seed Production in Nairobi, Kenya

*Pilot project aims to diversify urban farm businesses.*

*Following is another contribution by Mary Njenga and Nancy Karanja of CGIAR (Consultative Group on International Agricultural Research, [www.cgiar.org](http://www.cgiar.org)) in Kenya. This story is also co-authored by Janet Magoiya of Farm Concern International. The study described in this article was part of a larger project on traditional foods by the International Potato Center (CIP) in partnership with the Urban Harvest Program-CIP, the World Vegetable Center (AVRDC) and Farm Concern International with funds from the Kilimo Trust Foundation. Our gratitude goes to the authors and all the farmers of Kibera for sharing their story with us.*

By Mary Njenga, Nancy Karanja and Janet Magoiya

In Kenya and elsewhere in Africa, urban agriculture contributes substantially to the food security of many cities. It is an important component of the food system and contributes significantly towards food and income needs of farmer households. However, much of the nearly 5,500 acres of crop production within a 12-mile radius of Nairobi depends on untreated urban wastewater for irrigation, a situation that has caused concerns over food safety and public health. In response to these concerns, farmers in Nairobi's Kibera slum settlement participated in a pilot study to develop an alternative source of farm income: the production and sale of vegetable seeds.

Farmers in Kibera are organized into a Self Help Group which was formed to source farm inputs and extension services (including training), to manage the irrigation system and safeguard crops, and facilitate negotiations for land given to the farmers on a temporary basis by Kenya's National Social Security Fund.



Farmers being trained in seed production. Seed producer in amaranth plot. Photos by Mary Njenga, Urban Harvest.

One major constraint experienced by farmers growing Traditional African Vegetables (TAVs) is the absence of an efficient distribution system for quality seed. The purpose of introducing seed production to Kibera farmers was to try and bridge this gap. First the farmer group selected two members to attend a training in Arusha, Tanzania, in 2008. These two farmers later formed the core local training team in Kibera. Next, six farmers two men and four women were selected to participate in the pilot study to produce TAV seeds. A second training on TAV production was conducted on-farm in June, 2008. Interested farmers together with their family members and field workers

participated.

After the training the six farmers selected the vegetable varieties they wished to grow for seed from among amaranth, spider plant, African nightshade and cowpea. Plots measuring 90 square meters (about 960 sf) were prepared and manure was purchased from livestock farmers in Kibera. Basic seeds were supplied by the World Vegetable Center. Watering was done once weekly at the normal irrigation schedules for each farmer so that this activity did not place extra demands on the farmers. When the seeds were ready, farmers were trained in seed processing and packaging. Threshing and drying of seeds were carried out on the farms.

The new knowledge spread readily among the farmers. Those who had previously produced TAVs learned the new skills faster and assisted those with less experience. Field visits were carried out by the project team to discuss with farmers their experiences and review cropping practices as well as relevant benefits and costs. The Kilimo Trust Foundation program officer also visited the farmers to discuss the benefits, challenges and future plans of TAV seed production.



Threshing and drying of TAV seeds at Kibera. Photos by Jeniffer Penney.

When the idea of TAV seed production was first floated, some farmers were skeptical about whether this could become a business capable of replacing the conventional production of leafy vegetables. However, skepticism gave way to admiration for the pilot farmers when the seed crops matured very successfully and the income potential of the new approach became visible.

Later, a cost-benefit analysis showed that shifting from vegetable production to seed production could increase a farmer's

income threefold. For example, on average, farmers produced US\$173, US\$324 and US\$232 worth of seed annually from spider plant, amaranth and African nightshade respectively, from 90 square meters of land each. Once the linkage with seed stockists is well established, seed production will become an attractive alternative to selling vegetables at the farm gate. Seeds from the spider plant were in high demand countrywide and the farmers were encouraged to concentrate on producing the seeds. Among the challenges experienced during the pilot study was an outbreak of *Quelea Quelea* birds which resulted in some crop damage and hence yield losses.

The Kibera farmers are very enthusiastic about the seed production activity because they realized tangible benefits. One of the farmers commented that "at first we thought that organized seed production was laborious but we have found that there isn't much different from the conventional practices that we have always done. We are even happy to adopt this new seed production method because it requires small plots of less than 100 square meters. Farmers are also happy that growing TAVs (for seed as well as food) is replacing less profitable crops such as maize, fodder crops (napier grass) and sugar cane which grow to more than 6.5 feet tall, thus being a source of conflict between farmers and the Nairobi City Council enforcement officers.

Reach Mary Njenga at [m.njenga@cgiar.org](mailto:m.njenga@cgiar.org), Nancy Karanja at [nancy.karanja@cgiar.org](mailto:nancy.karanja@cgiar.org) and Janet Magoiya at [janet@farmconcern.org](mailto:janet@farmconcern.org).

### Urban Lot to Become Sustainability Demonstration Site

*Kansas City real estate developer decides on a different kind of downtown revitalization.*



DST's demonstration site in downtown KCMO

By Steve Taylor, vice president, DST Realty

As a Kansas City real estate developer, we at DST Realty build and renovate buildings that support the businesses and residences that are revitalizing the downtown area. At the corner of 18th Street and Broadway, however, we envision a different kind of downtown revitalization. The lot is vacant now, but in the coming months and years, it will be transformed into a working demonstration site where the public can learn about environmentally sustainable urban development and food production.

The site ultimately has development potential, but in light of the current real estate and financial markets, we posed the question: What could we do with this property today that would be valuable to the community?

The site steeply slopes both south and east, and during a typical Kansas City rain storm, more than 5,000 cubic feet of water fall on the site and the hard street surfaces that immediately surround it. The water that rushes down Broadway and along 18th Street pours into

storm sewers. We saw an opportunity to capture storm water runoff, keeping excess water out of the sewer system.

Together with 360 Architecture, Patti Banks Associates and TapanAm, we developed a plan to build a storm water capture and filtration system, utilizing innovative storm water management strategies such as storm planters, swales and rain gardens. The storm water system will line the perimeter of the site, and collected water will flow into a retention pond at the southeast corner. Our ambition is to capture and clean rainwater for 90 percent of the rainstorms that occur throughout the year nearly a million gallons annually.

We then asked ourselves: What if we used that water to irrigate a large garden in the center of the property? DST has operated a community garden at 10th and Jefferson for 17 years; this may be an opportunity to expand our efforts, and also develop an educational component to demonstrate gardening and water management principles.

Then the ideas really took off. We developed a plan that includes a rain garden perimeter and agricultural interior, as well as possible future phases featuring alternative energy resources (such as bio-diesel, compressed natural gas, ethanol and electric filling stations), glass recycling, photovoltaic-power and high-efficiency, low-impact housing.

We took our plan to the community to utility companies, government offices, neighborhood businesses, environmental groups and business organizations to solicit feedback and generate support. The response was overwhelmingly positive. We plan to break ground later this summer to build the storm water capture system and establish part of the garden.

#### *Volunteer Community Gardening*

The interior garden component encompasses two phases. Phase I, to be ready for spring planting in 2010, includes a demonstration area on the northwest corner of the site, and a high-production area on the southeast corner. DST volunteers will tend these gardens.

The demonstration area will encourage visitors to consider the benefits of growing some of their own fruits and vegetables, then show them different ways they might approach this. For example, one area will feature in-ground gardening, and another will feature raised beds. One bed might be planted with a single crop, while another with several crops to help people understand the level of production they might expect with each approach. We also will have freestanding pots to show its possible to grow vegetables or herbs or even miniature fruit trees in a limited space, such as a patio or balcony.

The high-production area at the southeast corner will feature a dozen raised beds measuring 12x4. Each bed will be planted successively with spring/summer or spring/fall crops. We will likely plant each with a single crop so that one bed may be sown with lettuce in the spring and harvested in time to plant tomatoes in late May. The produce from this area will be donated to a community food bank, as will some of what is grown in the demonstration garden.

Phase II plans for the interior site are not finalized, but one possible design incorporates additional tiers of high-production raised beds, as well as fruit trees and berry bushes. Again, produce would be donated to help feed Kansas City's hungry.

#### *Learn with Us*

The overarching goal of the site at 18th and Broadway is to demonstrate best practices in sustainable urban living. We want to share what we learn about food production and rain gardens, and how new technology can energize our homes and fuel our cars. We want people to learn with us, and take these ideas back to their homes and neighborhoods.

*DST Realty is a wholly owned subsidiary of DST Systems, Inc., a financial services recordkeeping firm in Kansas City, MO.*

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#### **Calendar of Events**

*Growing Growers Workshop - Taste and Nutrition of Local Foods.* Monday, August 10, 4pm - 7pm. Douglas County Extension Office, Lawrence, KS. The "line up" for this workshop is great, with nutritionist Lisa Markley covering nutritional info, Hilary Brown of Local Burger sharing tasty samples to demonstrate the great flavors of local, fresh food and a farm tour of Spring Creek Farm, where former Growing Growers apprentice Stephanie Thomas grows an abundance of vegetables for the Lawrence Farmers Market, the Merc and a CSA. Whether you are a local food fan seeking more information or a grower looking for help marketing your food, this is a great event. Attendees are welcome to pay at the door (registration fee is \$15) but please email [growers@ksu.edu](mailto:growers@ksu.edu) to pre-register so we can plan to have enough information materials and samples. Complete workshop information and directions at [www.growinggrowers.org](http://www.growinggrowers.org).

*Johnson County Community Colleges Sustainability Expo & Dinner.* Thursday, September 10. Expo from 4pm - 7pm. Open to the general public. Meet local farmers & area private businesses and discuss their practices, procedures & efforts in this increasingly important effort for our community and the planet. The dinner will begin at 7pm. Tickets for the dinner are \$65.00 with proceeds going to the JCCCs Student Environmental Alliance. For more information contact Tim Johnson at [tjohns81@jccc.edu](mailto:tjohns81@jccc.edu).

*From Commodity to Community: Food Politics and Projects in the Heartland.* The Community Food Security Coalition's 13th Annual Conference. October 10-13, 2009, Des Moines, IA. Info at <http://communityfoodconference.org/>.

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The Kansas City Center for Urban Agriculture is a 501c3 not-for-profit organization.

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