

Dyck Arboretum Welcomes Applicants for Earth Partnership for Schools Summer Institute, June 7 - 11, 2010

The Dyck Arboretum of the Plains, in Hesston, Kansas, is inviting K-12 teachers to apply for the 2010 Earth Partnership for Schools (EPS) Program. The program begins with a one-week institute, June 7-11, 2010, in which school teams of 2-4 teachers/staff are trained in prairie restoration. Learn about prairie cultural and natural history while doing hands-on curricular activities. Developed by the University of Wisconsin-Madison Arboretum since 1991, EPS has become part of the curriculum in over 200 schools in Wisconsin. The Dyck Arboretum was chosen by the UW-Madison Arboretum as one of 5 regional facilitating centers in 2005 to begin expansion of the program on a national scale. The Kansas EPS program is in its fifth year and has facilitated flourishing programs at 25 schools since 2007.

The EPS 40-hour Summer Institute shows teachers how to restore a native habitat garden on school grounds and teaches a broad range of subject matter. The EPS teacher professional development model has been proven effective in increasing teacher collaboration and improving student learning. While focusing on ecology, native habitat gardening also incorporates subjects such as mathematics, history, science, social studies, language arts, art, and music. EPS works with schools restoring schoolyard habitats and improving K-12 education by engaging students in hands-on/minds-on learning.

EPS offers teachers substantial support, training, a well-developed curriculum that corresponds to state standards, and expertise to create a native habitat garden with students on school grounds. Attend the Institute and receive:

- three Friends University graduate credits
- an extensive, easy-to-use curriculum
- professional, on-site consultation by Arboretum staff
- ongoing curriculum development support to participating schools
- guidance and leadership for a prairie field trip
- school-wide in-service opportunity
- assistance with acquiring funds for plants

Contact Brad Guhr, Kansas EPS Coordinator, for more information at 620-327-8127 or bradg@hesston.edu



Third Annual Earth Partnership for Schools Institute Trains Teachers from Nine Schools

by Brad Guhr, education coordinator



Children delight in planting and watching prairie plants grow. Teachers say that Earth Partnership for Schools (EPS) feeds their soul. Administrators report that EPS energizes their staff. And the butterflies don't seem to mind either. Monarchs, checkered skippers, black swallowtails, and red admirals will agree that prairie plantings are good for school grounds, a movement that is gaining momentum in south-central Kansas. From June 8-12, 2009, 20 new teachers attended the Dyck Arboretum's third annual Earth Partnership for Schools (EPS) Institute.

Elementary, middle, and high school teachers from Goddard, Sedgwick, Newton, two schools in Pretty Prairie, and four schools in Wichita attended the 2009 Institute made possible by support from Kansas Health Foundation, Cargill Cares, K.T. Wiedemann Foundation, and Cox Communications. Attendees included Diane Unruh, Barb Voran, Emily Schmidt, Molly Budde, Mary Ellen Hodge, Debbie Zenner, Barbara Stanfield, Denise Scribner, Marylee Ramsay, B.J. Stegall, Pam Tallant, Kim McLeland, Janice Krehbiel, Mary Kaufman, Paula Brandt, Dee Hilton, Patti Posey, Mindy Hammond, Nancy Koontz, and Marcia Scurfield. Instructors were Lorna Harder (Hesston College,) Brad Guhr (Dyck Arboretum), and Karen McCabe-Juhnke and Amber Celestin, both from Sunset Elementary in Newton.

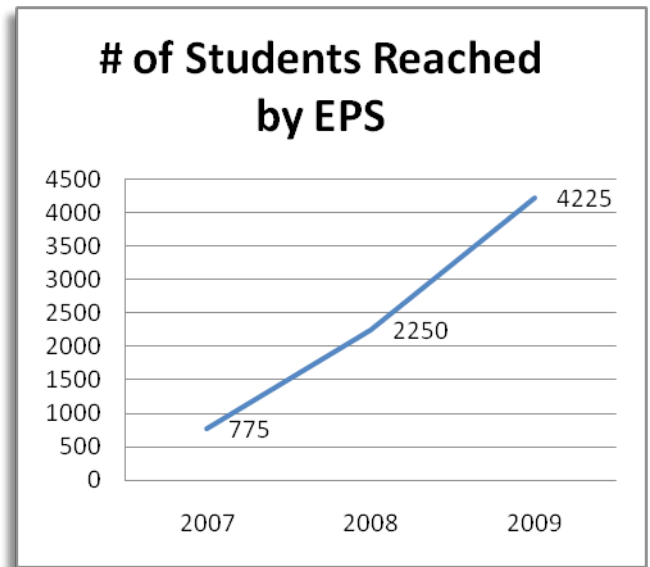
EPS Field Trips

The Kansas Health Foundation provided sponsorship for the Dyck Arboretum to host and facilitate field trips for schools in 2008 and 2009. Through this gift, children were able to come to the arboretum, visit prairies near their schools, or invite arboretum personnel into the classroom to explore the many wonders of the prairie including plants, wildlife, herbal/medicinal uses by Native Americans and so much more. Eight classes of students from Peterson Elementary in Wichita, Sunset Elementary in Newton, and Sedgwick Elementary participated in these field trips.



A “Pyramid Scheme” for Ecological Restoration

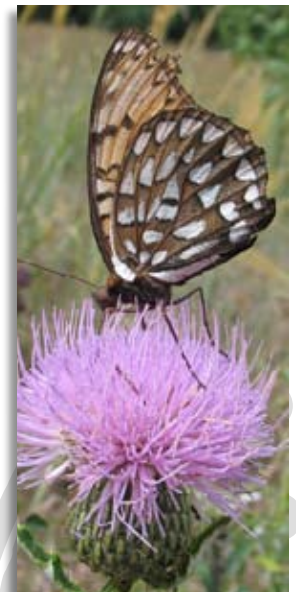
Earth Partnership for Schools (EPS) is making its ever-growing mark in Kansas. The message is clear—get kids outside and in touch with their natural surroundings. To date, 79 teachers trained through summer and winter EPS Institutes at the Dyck Arboretum are becoming transformed by a unique curriculum, and regularly remark that this institute provides some of the most inspiring training they have ever received. They are also passing this infectious energy along to their students by the thousands. Students learn about the prairie and its plant species, get dirty planting them on school grounds, enjoy the wildlife attracted to them, and so much more. If each teacher influences 25 students per year with EPS, teaches a new class each fall, and new teachers are trained each year, the reach of EPS in Kansas becomes staggering: 775 students in 2007, 2,250 in 2008, and 4,225 in 2009. A “pyramid scheme” for ecological restoration? Let’s just call it the power of the prairie.



Bird and Butterfly Sampling on Kansas Prairies

Financial support through a two-year State Wildlife Grant from Kansas Department of Wildlife and Parks is enabling continued sampling of bird and butterfly populations on local project-area prairies. This information brings to light the ecological diversity of remnant prairies and adds support for their conservation. These last remaining prairie remnants are the blueprints we refer to for restoring new prairies and provide seed for local ecotype plants that we utilize in native landscaping.

Bird and butterfly studies are conducted in the first weeks of June, July, August, and September. Many of the project species targeted for conservation appear in good numbers on some sites (including bell’s vireo and regal fritillary) and we expect numbers of these species to increase with appropriate management. Quantitative photo-monitoring records the height and density of vegetation during site visits. Contact Brad if you are interested in assisting him with these surveys.



Explore Kansas Prairies

Join us in gathering seed, observing birds and insects, and identifying prairie plants on high quality prairie remnants. All ages are welcome. Leave the Dyck Arboretum at 4 p.m. and return by twilight (~8 p.m.) Fee: \$5, children under 14 are free. Call 620-327-8127 to reserve a spot. Directions can be given to late-comers. Bring a sandwich and enjoy the sun setting over the prairie. **September 1, 15, 29, October 13, and 27.**

EPS Continues to Extend Educational Opportunities for Kansas Kids

by Brad Guhr, Education Coordinator

Kansas children continue to put down prairie roots...literally. Students were again active in 2008 planting prairie gardens on their school grounds as part of the Earth Partnership for Schools (EPS) program facilitated by the Dyck Arboretum of the Plains. Most of these plantings follow the 2008 EPS Institute at Dyck Arboretum where 28 new teachers became trained in the EPS curriculum. The curriculum introduces students to the prairie through hands-on learning in a variety of inter-disciplinary ways that kids love.



Teachers and their students conducted plantings at Peterson Elementary (Wichita), Peabody-Burns Elementary, Goessel Elementary, Slate Creek Elementary (Newton), and Sunset Elementary (Newton). Peterson and Sunset took field trips where they studied the prairie model, and Isely Traditional Magnet Elementary started a weeding club to maintain prairie gardens they have planted over the last couple of years. Hamilton Schools from the middle



of the Flint Hills who participated in the 2007 Institute conducted a planting and field trip this spring. Teachers from the 2008 Institute will return to the Dyck Arboretum for a one-day winter institute on January 16, to renew energy, share stories with other teachers, and re-focus on action plans. Several partic-

ipating schools are preparing for plantings that will occur in 2009.

Since our first training institute in 2007, EPS in Kansas has been passed along to 62 teachers from 21 schools. Such an effort has had the potential of reaching approximately 2,400 kids in just the first two years of implementation. We joined our University of Wisconsin-Madison Arboretum host organization in sharing early EPS experiences in Kansas at national conferences this summer for the North American Association for Environmental Education and the American Public Gardens.

Generous support for EPS in Kansas is provided by Cargill Cares, K.T. Wiedemann Foundation, and Kansas Health Foundation. Many of our EPS schools have also benefited greatly from the Outdoor Wildlife Learning Sites (OWLS) Program coordinated by Kansas Department of Wildlife and Parks that provides schools with funds for plants.

New Friends of the Arboretum August 16 – December 15, 2008

Senior

Pauletta Carlson, Wichita, Kan.
Sue Grahan, Hesston, Kan.
Carole Hull, Newton, Kan.
Janet Krack, Wichita, Kan.
Karen Mundon, Peabody, Kan.
Kay Somers, Sedgwick, Kan.
Frank White, Jr., Hesston, Kan.

Individual

Thomas, Bittle, Wichita, Kan.
Alice Goering, Hillsboro, Kan.
Dan Martin, Ramona, Okla.
Gwen Neufeld, North Newton, Kan.
Lynnette RauvolaBouta, Eastborough, Kan.
Dianne Waltner, Wichita, Kan.
Steve Woolf, Hesston, Kan.

Family

Mary Liz Jameson, Wichita, Kan.
Rod and Teresa Snyder, Hesston, Kan.
Leia Lawrence and Dan Stucky, Newton, Kan.
Jim and Virginia Mininger, Hesston, Kan.
Tom Palmer, Augusta, Kan.
Jerry and Jeanne Sommerfeld, Halstead, Kan.
Martha Unruh, Halstead, Kan.
Justin and Lisa Wedel, Galva, Kan.

Steward

Karen Morland, Sedgwick, Kan.
Augusta Historical Society, Augusta, Kan.

Volunteer Spotlight



Susan Reimer –

Susan has been a tireless supporter of the Prairie Window Project through her efforts to collect and clean seed. She also helped staff member Brad Guhr present on the Dyck Arboretum's prairie conservation efforts

at the 2008 North American Prairie Conference in Winona, Minn., this summer. After moving back to Kansas and the McPherson County house of her childhood, Susan became the caretaker of 160 acres of diverse, remnant, Smoky Hills prairie south of Maxwell Wildlife Refuge. Thanks to Susan's efforts and passion for the prairie, a piece of ancient Smoky Hills Prairie as well as the developing prairie at the arboretum will delight wildlife and people for years to come.

Second Annual Earth Partnership for Schools Institute Trains 28 More Educators

by Brad Guhr, education coordinator

The legions of Kansas children who will be learning about prairie are growing. From June 2-6, 2008, 28 educators from 11 Kansas schools and the Great Plains Nature Center attended the second annual Earth Partnership for Schools (EPS) Institute at the arboretum.

Elementary, middle, and high school teachers from Peabody-Burns, Marion, Hutchinson, Junction City, Maize, two schools in Newton, and four schools in Wichita attended the 2008 Institute made possible by generous support from Cargill Cares, K.T. Wiedemann Foundation, Cox Communications, and the Kansas Health Foundation. Attendees included Jennifer Meek, Johanna Quick, Roger Diekmann, Andrew Ising, Matthew Krehbiel, William Kruse, Martin Shetlar, Emily Bowlin, Jennifer Young, Ann Leppke, Deanne Alexander, Erin Gulick Dresher, Jeanie Wagers, Carolyn Brown, Cathy Medlin, Jeanne Rudd, Debbie Binns, Stephen Lehmann, Marcie McKinnell, Shelli Nisly, Ola Wilk, Melissa Carlson, Carol Goering, Noah Busch, Mary Criss, Jessica Kauffman, Bill Welch, and Lorrie Beck. Instructors were Lorna Harder, Hession College and Karen McCabe-Juhnke and Amber Celestin, both from Sunset Elementary in Newton.

Developed by the University of Wisconsin-Madison Arboretum, EPS utilizes an extensive, hands-on curriculum in which teachers can engage students in the science, art, and process of prairie restoration on school grounds. Whether in small butterfly gardens established by plants, or large, diverse prairie ecosystems established from seed, EPS helps K-12 children become fully involved in the process of creating prairie while developing an understanding and appreciation for the plants, and wildlife therein. During the institute, teachers rehearsed activities including the study of plant families, plant-pollinator interactions, science inquiry, planting a prairie garden, creating a colorful prairie print wall-hanging, orienteering with compasses, and so much more.

During the first year of EPS implementation in Kansas, an estimated 800 kids were taught about the prairie. Adding this new group of teachers to the mix will extend the reach of EPS to more than 2,300 kids in just the second year. We proudly refer to this expansion of EPS education as the “pyramid scheme of prairie restoration” in Kansas.

The following teacher comments share some of the impact of this institute:

Ann Leppke, Marion Middle School

When I walk through the prairie, it's the textures and the colors that I notice. The many different shades of green, the colorful blooms, the daintiness and the boldness of all there is to see. I can't help but touch the leaves, run my hands over the flower heads and smell the air. Prairie air smells different.

Emily Bowlin, Peabody-Burns Elementary School

I was amazed to hear how deeply the roots of prairie plants go. My mother tried many times to transplant the butterfly milkweed from out of our pasture when I was in high school and never was able to do so. I now know why!

Erin Gulick Dresher, Peterson Elementary

I felt I had the desire and passion to make the space an educational opportunity for students but didn't have any of the education needed to make my dreams and hopes come alive. I am happy to say that after the EPS class I feel like I have the education, the knowledge of resources and grants, and a new understanding of the importance of making our courtyard space a restored prairie and not just a generic garden.



Debbie Binns, Reno Valley Middle School

“The whole is greater than the sum of its parts.” I thought that comment was enlightening. To think about each tiny part of the prairie ecosystem, the role it plays not only for itself but for other plants or insects, how everything interacts together, how each part can propagate and how it all comes together to form a prairie is nothing short of a miracle. I have enjoyed this much more than I expected to, learned a lot along the way and hopefully can help the students appreciate it too.

Arboretum Appreciation

*Among the short green grass I sit
The peaceful quiet a perfect fit.*

*Birds are singing loud and clear
A prairie resource I find here.*

*With insects, birds and plants all kinds
It allows me just to clear my mind.*

*Imagining back in the prairie days
When people had differing ways.*

*Developing a project for students to use
Hopefully will help them appreciate other views.*



Rent the Visitor Center for your special occasions

- Family celebrations
- Weddings
- Church gatherings
- Business meetings

Call 620-327-8127

Melissa Carlson, Sunset Elementary School

The Earth Partnership for Schools Summer Institute was an experience of phenomenal proportions. From a personal perspective I have had a unique experience that really opened my eyes to the value in prairie restoration not only in school but on my own land. My new mission, as a result of this project, is to help students and children gain an awareness of their native lands and the beauty it can hold.

Change Service Requested
arboretum@hesston.edu
www.dyckarboretum.org
620-327-8127
Hesston, KS 67062
P.O. Box 3000
Hesston College



Non-Profit Org.
U.S. Postage
PAID
Hesston, KS
Permit No. 5



Teachers Become Energized Through One-Day Winter Prairie Institute

by Brad Guhr, education coordinator

“Dormancy” is a good one-word description for the prairie plants and animals in winter that minimize activity when the temperatures are chilly, the days are short, and the nights are long. The same word does not apply, however, to the energetic and ambitious teachers who are studying and restoring prairie with their students through the Earth Partnership for Schools (EPS) Program.



On January 11, twenty-three teachers participating in the EPS program through Dyck Arboretum of the Plains returned to the Arboretum for a one-day winter EPS Institute – where they originally became trained in EPS through a one-week Institute in June, 2007. At the winter institute, teachers shared the progress of their prairie plantings, strides made with EPS curriculum implementation, and the successes and challenges encountered along the way. In addition to sharing their stories, participants also took part in a prairie walk and scavenger hunt where they learned about ways to appreciate the dormant prairie and engage their students in winter-time prairie exploration on their school grounds. Elementary, middle, and high school teachers from Goessel, Hamilton, Hutchinson, Maize, Newton, Sedgwick, Walton, and five schools in Wichita attended the one-day institute. Sponsorship from Citizens State Bank of Hesston helped make the day possible.



EPS is a K-12 teacher professional development program developed by the University of Wisconsin-Madison Arboretum that focuses on enhancing teacher and student learning through the process of restoring native ecosystems on school grounds. The EPS teacher professional development model has been proven effective in increasing teacher collaboration and improving student learning. While focusing on science and ecology, native habitat gardening also incorporates subjects such as mathematics, history, social studies, language arts, art, and music. EPS works with schools restoring schoolyard habitats and improving K-12 education by engaging students in hands-on/minds-on learning.



The Dyck Arboretum of the Plains will be hosting its second EPS Summer Training Institute June 2-6, 2008 and is now taking teacher applications. Please contact Kansas EPS Coordinators, Brad Guhr or Lorna Harder, at 620-327-8127 or bradg@hesston.edu for more information.

EPS Prairie Plantings Engage and Educate School Children

by Brad Guhr, education coordinator

"I didn't know these plants could be medicines.... I'd much rather eat seeds than swallow pills."

"Whoa, these roots go as deep as a basketball goal!"

"You mean buffalo and cows and grasshoppers really eat these things?!?"

These quotes are a few fragments of the intriguing dialogue held with students while helping them plant prairie plants on school grounds. Such conversations were in abundance with K-12 students at five schools in the months of September and October. The students and their teachers planted prairie gardens as part of the Earth Partnership for Schools (EPS) Program facilitated by the Dyck Arboretum of the Plains.

These plantings follow the 2007 summer EPS Institute at Dyck Arboretum. Teachers attending the institute learned to implement the extensive EPS curriculum which helps students interact with their natural surroundings.

The following schools conducted plantings as part of their EPS Implementation Plans: McLean Science and Technology Magnet Elementary (Wichita), Minneha Core Knowledge Magnet Elementary (Wichita), Sedgwick K-12 Schools, Walton 21st Century Rural Life Elementary, and Isely Traditional Magnet Elementary. Prairie veterans Goessel Elementary and Sunset Elementary (Newton) also have been taking field trips, doing in-service trainings, and implementing other curriculum components of EPS.

Students and teachers mulched and watered plantings of 100 to 300 plants throughout the fall while the plants established roots. Many of these plants will flower, attract pollinators, and set seed this year. Native prairie plantings will add beauty and diversity to schoolyards. They will also serve as outdoor learning laboratories for kids where they can study varied topics such as how Native Americans used coneflower (*Echinacea*) seeds as pain-killers, how prairie plants and their many adaptations such as deep root systems can easily survive the Kansas climate, and how these plants interact with wildlife.

Support for EPS is provided by Cargill Cares, K.T. Wiedemann Foundation, and Spirit Aerosystems. Dyck Arboretum has helped or is in the process of helping Minneha, Sedgwick, Walton, Sunset and Isely acquire funding for plants from the Kansas Department of Wildlife and Parks' Outdoor Wildlife Learning Sites (OWLS) Program. McLean and Goessel are already OWLS Program participants.



Teachers Learn Earth Partnership for Schools Program at Inaugural Kansas Institute *by Brad Guhr, education coordinator*

These Kansas teachers are prairie pioneers. Not the kind that started a one-room school amidst endless vistas of prairie matted with thousands of head of bison, but the kind that can heal a bare patch of soil on a modern school ground with native prairie plants and about 25 pair of eager, adolescent hands.

From June 4-8, 2007, 31 pioneering teachers/resource personnel from 11 south-central Kansas schools embraced the Earth Partnership for Schools (EPS) program during a teaching institute at the Dyck Arboretum, the first to occur in Kansas. Elementary and middle school teachers participated from Goessel, Hamilton, Hutchinson, Newton, Sedgwick, Walton, and five schools in Wichita. The institute was sponsored by Cargill Cares, K.T. Wiedemann Foundation, and Spirit Aerosystems.

Restoring prairie to a landscape is a process that requires an intimate relationship between people and the land. Early conservationist and prairie restorationist Aldo Leopold stated "We abuse land because we regard it as a commodity belonging to us. When we see land as a community to which we belong, we may begin to use it with love and respect." To make learning through EPS and the resulting prairie planting a success, students must become familiar with the desired prairie and its parts, understand the process needed to reinstate as many of those parts as possible, investigate the project area to become familiar with its characteristics that can help or hinder restoration, and implement a well thought-out plan for establishment. The process requires teach-

ers who have an appreciation for prairie, some knowledge of plants, enthusiasm for educating others, and plenty of patience.

Through implementing EPS, the following 31 teachers/resource personnel are helping make Leopold's vision a reality: Angela Black, Vickie Boss, Gaylene Bumgarner, Amber Celestin, Angie Daniel, Bonnie Epp, Brenda Fox, Barb Goering, Marilyn Hagemester, Allison Hamm, Natalie Harrison, Johannah Hein, Karen Jacobs, Thomas Krehbiel, Vita Lamb, Karen McCabe-Juhnke, Rae McGrath, Sarah Medlam, Sandy Miller, Kathy Murphy, Zerrin Oelze, Janice Penner, Teresa Poulseen, Derrick Richling, Darcie Rudd, Staci Schill, Linda Shriver, Sherry Unruh, Michelle Woods, Pam Zolman, and Lu Ann Zook. Instructors assisting were Lorna Harder, Hesston College; Cheryl Bauer-Armstrong, University of Wisconsin, Madison Arboretum; and Vicki Miller, Sedgwick County Zoo.

These teachers are now empowered by EPS and its extensive curriculum to engage students in fun, educational, and hands-on activities that can employ multiple intelligences across all areas of the school curriculum. This can all be done through prairie restoration.

The following teacher comments share some of the impact of this institute:

"The next day found me filled with awe again as I listened to my classmates share their experiences both professionally and personally. So much new information and knowledge



along with new ways of presenting it to students and yet it didn't feel daunting and draining like most instructional workshops.... As a result of this experience I have turned down pages in the curriculum guide with stars and notes as well as filled several pages with notes, ideas, and dreams for the coming year." – Janice Penner, Earhardt Environmental Magnet Elementary, Wichita

"My personal and professional growth will forever be changed by my experiences at the Dyck Arboretum Summer Institute. Each day as I wrote in my journal and reflected over the day's activities, I began to feel a "sense of place." Each activity and new experience took me a step closer to understanding and feeling a part of our natural world." – Vita Lamb, Minneha Core Knowledge Magnet, Wichita

"I have lived in Kansas my whole life and have always loved the outdoors, but this week really opened my eyes to exactly what I am seeing in Kansas nature and how important it is to preserve it and teach others about it.... I have driven my boys all over the country this week.... I have driven with one eye on the road and the other eye scanning the road-sides and fields for glimpses of those wild flowers I now know and can recognize." – Gaylene Bumgarner, Minneha Core Knowledge Magnet, Wichita

"He (Aldo Leopold) said he was interested in relationships—the relationships between people and between land and people. All of our prairie stories involve people and what happened when they started living on and building on and digging up the prairie. As a semi-farm kid myself, I notice we never take the land stories back further than the first house or first barn or crop, when the first settlers arrived. But *this is how I think differently now*: In fact, my house stands not on former dairy farm land but on former PRAIRIE. It was a prairie before it was a farm. Duh." – Lu Ann Zook, Sedgwick Middle School

2007 Luminary Walk
"The Prairie Sleeps"

5:30 – 8: p.m.

November 23, 2007

December 1, 2007

December 8, 2007

December 9, 2007

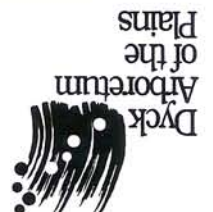
Rent the
Visitor
Center for
your special
occasions

- Family celebrations
- Weddings
- Church gatherings
- Business meetings

Call
620-327-8127

Change Service Requested

Hesston College
P.O. Box 3000
Hesston, KS 67062
620-327-8127
www.dyckarboretum.org
arboretum@hesston.edu



Non-Profit Org.
U.S. Postage
PAID
Hesston, KS
Permit No. 5