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Water Current Newsletter

Water Center, The

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# Water Current

## Celebrating Five Years of "Earth Wellness"

by Steve Ress

The Earth Wellness Festival celebrates five years of educating future stewards of the planet this spring.

The annual youth festival will be held 9 a.m. to 4 p.m., Thursday, March 25 at Southeast Community College-Lincoln. Nearly 3,000 Lancaster County youth and 275 teachers are registered to attend this fun, imaginative and factual daylong opportunity to explore science.

Students will visit four 25-minute activity sessions and one 25-minute culminating activity. About 80 presenters and 200 volunteers will help educate and guide them through their daylong adventures.

Steering committee co-chair Arlene Hanna of University of Nebraska-Lincoln Cooperative Extension in Lancaster County, said "The festival is committed to educating future earth stewards through hands-on activities. Through them, they'll be able to recognize the interdependency of land, water, air and living resources. They'll also learn about human impacts on our planet and learn ways they can enrich our environment."

To enhance the educational value of the festival, schools receive a pre-festival activity kit that can be used before and after the festival. The kits contain curriculum suggestions, materials and equipment that complement the festival experience.

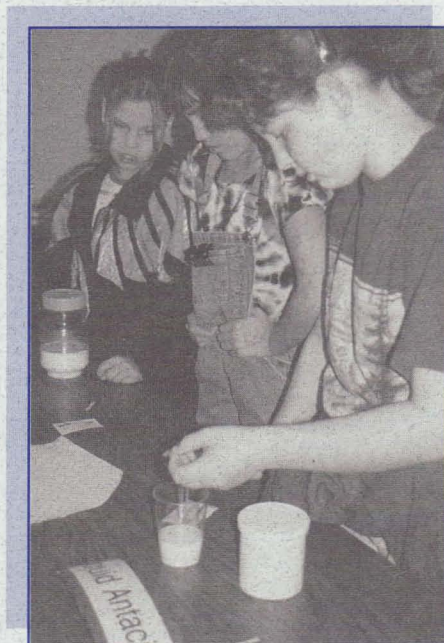
"The festival links environmental issues with science-based curriculum, allowing students to explore in an atmosphere promoting imagination and discovery," Hanna said.

The earth wellness festival developed from Lincoln Public Schools teacher interest in a local water event. About 325 LPS teachers signed petitions to help bring

the idea to reality and 10 educational resource agencies then teamed to develop the concepts. The first festival was in 1995.

Organizations involved in organizing the festival are Cooperative Extension in Lancaster County, UNL, City of Lincoln, The Groundwater Foundation, Lincoln/Lancaster County Health Department, Lincoln Public Schools, Lower Platte South Natural Resources District, Southeast Community College-Lincoln, UNL Water Center/Environmental Programs and Ventures in Partnership.

For more information, contact Hanna at (402) 441-7180, e-mail [ahanna1@unl.edu](mailto:ahanna1@unl.edu) or John Chess, Lincoln/Lancaster County Health Department at (402) 441-8027.



Students increase their knowledge of our environment through hands-on activities at the Earth Wellness Festival. The event is held in March at the Lincoln campus of Southeast Community College (photo: Arlene Hanna).

- 3 ..... "NEBRASKA WATER 2000"
- 4 ..... "AWESOME AQUIFER ADVENTURE"

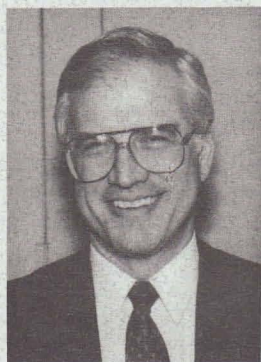
### INSIDE

- 4 ..... LINING NEBRASKA'S LANDSCAPE
- 8 ..... RESEARCHING RUNOFF REDUCTION



# Water Center Director Announces Resignation; Accepts Director's Post at University of Kentucky

## from the DIRECTOR



**Bob G. Volk**

It is with much regret that I announce my resignation as director of Water Center/Environmental Programs at the University of Nebraska-Lincoln, effective March 15. I have directed the unit for nine years and believe it is time to move on to other challenges and opportunities. Currently, our center is recognized as one of the top water institutes in the nation. I am pleased that faculty and staff associated with the Water Center have done such an outstanding job of attracting federal and state grants, as well as conducting our many outreach activities.

The loss of Nebraska Research Initiative funds to our center is of great concern to me and will be of concern to a new center director, as well. It is quite possible that NRI funding losses could be as high as \$700,000 over the next few years. These funds have been instrumental in supporting water-related research through grants to faculty. By no means have we answered all of Nebraska's water questions and the loss of this funding will impact current and future research efforts to answer these many questions. Major programs that will be affected could include new faculty hires, dollar matching to support grant activity, support for graduate students, equipment purchases and the awarding of competitive grants. In spite of this dollar loss, I am pleased to say that UNL has a strong program in

water research and education. Faculty will simply have to work much harder to obtain the grants they need to continue finding the answers to Nebraska's many water questions.

I will continue to have close contact with research and extension faculty in the water area through my new position at the University of Kentucky. It will be sad to leave a state with such a rich history and promising future in agriculture, but I look forward to many new challenges in Kentucky where I will be part of an expansion of the Water Institute/Environmental Center.

National recognition of the Water Center in Nebraska continues in that we will be overseeing and administering the U.S. Geological Survey National Competitive Grants program this year. \$1 million will be available for research in the water resources area through this program. I will work very closely with the new center director and staff to see that this project is completed.

Again, I have many good memories of my association with the leaders and innovators in Nebraska's water resources. UNL faculty and staff have been very supportive of the Water Center through the years and I have every hope and confidence that this level of support will continue in the future. To all of you, I wish the very best.

## *Water Current*

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**Roy F. Spalding** — Associate Director,  
Water Sciences Laboratory Director  
**Edward F. Vitzthum** — Coordinator of  
Environmental Programs  
**Robert D. Kuzelka** — Assistant to the  
Director  
**Steven W. Ress** — Editor

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# Still Time to Pre-Register for "Nebraska Water 2000" Conference

by Steve Ress

If you want to take part in helping plan Nebraska's water future, you'll get the chance if you attend next month's 28th annual Nebraska Water Conference in Kearney.

There's still time to take advantage of reduced pre-registration costs for "Nebraska Water 2000 - Planning for the Future" that will be held March 8-10 at Kearney's Regency Inn.

"Using an interactive setting, conference attendees will explore visions for the future and how these visions in Nebraska might be impacted with or without planning for the state's water resources," said conference organizer Bob Kuzelka, assistant to the director of the NU Water Center/Environmental Programs.

Conference registration costs have risen little from last year. Full conference registration is just \$95 per person in advance, or \$115 at the door. There are a total of 10 registration and meal ticket options that allow you to pay for only those portions of the conference you attend.

March 3 is the deadline for advance registration or for requesting a total registration fee refund. Registration options are \$5 to \$20 higher if purchased at the door. A brochure detailing registration options and the conference program was mailed to *Water Current* subscribers a few weeks ago. If you do not have a copy of that brochure and need more information on registration options and costs, contact Karen Stork, Conservation and Survey Division, 113 Nebraska Hall, University of Nebraska, Lincoln, NE 68588-0517 or phone (402) 472-7530.

Last year's conference opened the three-year "Nebraska Water 2000" series focusing on "Information for the Future." The series concludes next year with a look at "Management for the Future."

Envisioning the future of water to 2050 will be the focus of the conference's opening session, by U. Gale Hutton of the U.S. Environmental Protection Agency, Region VII, Kansas City, MO. This futurist talk will be followed by breakout sessions for attendees to develop their visions of Nebraska's water future.



T. Lindsay Baker

A second morning session looks at past successes and failures in state water planning with Dayle Williamson and Steve Gaul of the Nebraska Natural Resources Commission.

Tuesday afternoon sessions examine who plans for Nebraska's water, by Glenn Johnson, general manager of the Lower Platte South Natural

Resources District; and how to plan for water and why, by Curt Brown, U.S. Bureau of Reclamation.

A panel reporting on the morning breakout sessions completes the day's events.

Wednesday morning's program begins with panel discussions on factors affecting the state's water future.

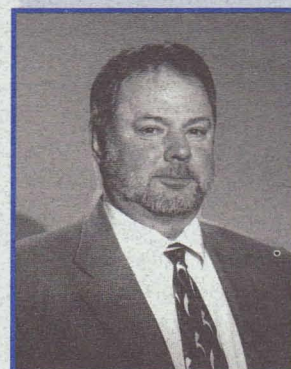
"Attendees then move back into the same breakout groups as on Tuesday, revising their visions of Nebraska's water future and developing two scenarios addressing that vision, both with a plan and without one," said Kuzelka.

Tuesday Noon and Tuesday evening banquet entertainment will be provided by humorist and popular speaker T. Lindsay Baker of the Texas Heritage Museum at Hill College in Hillsboro, TX.

An optional pre-conference workshop on the basics of planning will be offered Monday evening, conducted by Kuzelka and Rachael Herpel of The Groundwater Foundation. It should be useful to anyone not having extensive background in community or governmental planning. An optional post-conference workshop Wednesday will discuss a proposed International Center for Groundwater Research at UNL.

For conference information, contact Tricia Liedle, Water Center/Environmental Programs, P.O. Box 830844, University of Nebraska, Lincoln, NE 68583-0844, phone (402) 472-3305 or e-mail [sress@unlinfo.unl.edu](mailto:sress@unlinfo.unl.edu)

The conference is sponsored by the Nebraska Water Conference Council, Nebraska Department of Water Resources, The Groundwater Foundation, Kearney Visitors Bureau, NU's Conservation and Survey Division, Water Center/Environmental Programs, School of Natural Resource Sciences, Institute of Agriculture and Natural Resources, UNL and the Nebraska Chapter American Planning Association.



U. Gale Hutton





# "Awesome Aquifer Adventure" Coming to Grand Island

by Steve Ress

Interactive displays, plays and puppet shows are all part of the "Awesome Aquifer Adventure" that is next month's Children's Groundwater Festival in Grand Island.

The annual festival, sponsored by The Groundwater Foundation, will be at Grand Island's Central Community College and College Park on Tuesday, March 23. About 1,600 Nebraska 4th-6th graders will attend it. While there they will learn more about the importance of groundwater to all Nebraskans and its relationship to all the natural resources we depend on.

Groundwater, according to the festival's sponsor, supplies drinking water to 90 percent of Nebraskans and 50 percent of the U.S. population as a whole, yet remains one of our least appreciated natural resources.

Building on the success of past GW festivals, this year's event will feature an interactive play about the water cycle, presented by the Fontenelle Forest Association; Roger Gold and his "Water Magic;" and the magic of Paul Mesner's puppets bringing groundwater to life.

Festival presenters include water and natural resources experts who teach and present in a fun and interactive atmosphere. Attending schools are scheduled into four-hour blocks of activities that include classroom

sessions, exhibit hall activities, outside displays, performances and games.

New this year is a classroom option of joining the foundation's Awesome Aquifer Club. "If students in the AAC choose to do so, teams of students will present activities to other school groups. This will help make them leaders as well as learners," said festival organizer Wendy Conrad. More than half of this year's festival participants will be AAC members, she said.

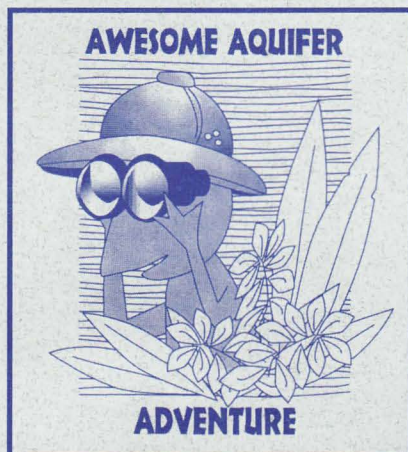
The festival debuted with about 1,700 students attending in May, 1989. Subsequent festivals have been held at Central Community College during spring break in March. Attendance rapidly grew to 3,000, with many more schools and students on waiting lists.

Last year's festival was conducted under the banner of "Celebrating 10 years of Festival Magic." As part of that celebration, 26 students from seven countries attended an International Children's Groundwater Summit held March 21-24.

Since it began, the Grand Island festival has increasingly served as a model for other states and organiza-

tions attempting to organize similar events in their locales.

For more information, contact Wendy Conrad or McKenzie Barry, The Groundwater Foundation, P.O. Box 22558, Lincoln, NE 68542-2558, phone (800) 858-4844 or e-mail festival@groundwater.org



## Lining Nebraska's Landscape

Recent legislation is encouraging Nebraska landowners to establish buffer strips to help reduce the levels of sediments and other pollutants reaching surface water.

"I put in 13 acres of filter strips because I got tired of cleaning silt and sediment out of the channel. I put big bluestem and switchgrass in filter strips on both sides of the creek in the spring of 1998. It was too wet along here some years for crops," said Butler County producer John Anderson. "I like the looks of it. It's good for erosion control and wildlife."

Anderson is one of many Nebraska landowners taking advantage of the Nebraska Buffer Strip Program created by the Nebraska Legislature last year.

"The program is intended to encourage landowners to establish buffer strips along vulnerable surface water resources," said Scott Merritt, executive director of the Nebraska Corn Growers Association. The program is funded from fees assessed on all pesticides registered in Nebraska.

Land eligible for the program includes cropland

adjacent to perennial streams, intermittent streams, wetlands or permanent bodies of water and existing buffer strips established after Jan. 1, 1996 along these same areas.

Payment rates vary, depending on whether the land is dryland or irrigated land and whether or not the land is already enrolled in the conservation reserve program (CRP).

The program is administered by the Nebraska Department of Agriculture and local Natural Resources Districts. If an application is approved, the landowner enters into a formal agreement with the local NRD and establishes the buffer strip according to USDA Natural Resources Conservation Service requirements.

Applications for 1999 may be submitted at any time, as program funds allow. For a complete explanation of contract terms and lengths, contact your local NRD, the NRCS or the Nebraska Department of Agriculture.

Other partners in the "Nebraska Conservation Buffer Initiative" include The NE Corn Growers Association, NE Environmental Trust fund, USDA Farm

(continued on page 5)



# Groundwater Guardians Work to Improve Local Groundwater Protection Efforts

More-and-more communities across the nation and throughout the world are becoming "Groundwater Guardians."

These Groundwater Guardians were recognized for their efforts to protect groundwater at the 1998 Groundwater Guardian Designation Conference in Anaheim, CA. in November. At the conference, 172 communities, organizations and businesses were designated as Groundwater Guardians by the sponsoring Lincoln-based Groundwater Foundation. In 1998, Groundwater Guardians were in 36 states and two Canadian provinces and included 16 national partners.

Groundwater Guardian is an international program The Groundwater Foundation that empowers citizens to initiate groundwater protection projects in their local communities. Helping found the program and currently working as a consultant for it is Bob Kuzelka, assistant to the director of the

Water Center/Environmental Programs at the University of Nebraska-Lincoln.

Communities earn Groundwater Guardian designation for their work to protect local groundwater supplies. These activities can range from education and awareness programs to implementation of wellhead protection plans and local land-use ordinances.

Regional agencies, organizations and businesses earn designation as affiliates by supporting the efforts of nearby Groundwater Guardian communities. The support they provide can include technical support, educational materials or funding assistance. National entities earn designation by supporting the long-term sustainability of the program itself.

Nebraska's Groundwater Guardian communities include Buffalo County, Cargill Corn Milling in Blair, Davey, Grand Island, Imperial, Lancaster County,

Lincoln, Metropolitan Omaha, North Platte, Offutt Air Force Base, Seward County, Spring Lake Park Neighborhood (Omaha) and Trenton.

Nebraska affiliates are the Lincoln-Lancaster County Health Department, Central Nebraska Regional Water Conservation Task Force in Holdrege and the U.S. Geological Survey-Nebraska District, Lincoln.

Nebraska's national partners are Congressman Doug Bereuter's Office, Senator Bob Kerrey's Office, the Nebraska Department of Environmental Quality and the University of Nebraska's Institute of Agriculture and Natural Resources and Water Center/Environmental Programs

For information on how you, your community or your business can become involved in Groundwater Guardian, phone The Groundwater Foundation at 1-800-858-4844 or access [www.groundwater.org](http://www.groundwater.org)

## Lining Nebraska's Landscape (continued from page 4)

Service Agency, University of Nebraska Cooperative Extension, NE Sustainable Ag Society, NE Grain Sorghum Board, U.S. Army Corps of Engineers, Center for Rural Affairs, NE Wildlife Federation, Wildlife Management Institute, NE Game and Parks Commission, American Fisheries Society, NE Forest Service, NE Department of Environmental Quality, Novartis Crop Protection Inc., NE Soybean Association, U.S. Fish and Wildlife Service, Nature Conservancy, NE Public Power District, NE Water Quality Foundation and Omaha Metropolitan Utilities District. Interested landowners may also contact one of these members for additional information.



UNL's Water Center/Environmental Programs has been recognized as a Groundwater Guardian National Partner by The Groundwater Foundation. IANR associate vice chancellor Edna McBreen accepted the award for the Water Center at a conference in Anaheim, CA. in November. Pictured at the presentation are (from left) Sharon Lien of the Groundwater Guardian Council; Cindy Kreifels, program director for The Groundwater Foundation; Bob Kuzelka, UNL Water Center; McBreen and Todd Spitzer, Orange County supervisor (photo: The Groundwater Foundation).





# Water News Briefs

## Community Resources Guide

Solutions to common problems geared to the unique needs of smaller communities can be found in *"Helpful Resources for Small Communities,"* a free listing of guidebooks and other materials from the National Center for Small Communities (NCSC).

Materials contain valuable tips for saving time and money, helpful worksheets and checklists, useful ways to turn ideas into action and references to additional resources and assistance. The resources guide offers publications and services on local government management, community and economic development, raising funds and cutting costs, funding strategies, underground storage tanks, drinking water and wastewater treatment and more.

For a free copy, contact NCSC, 444 N. Capitol St., N.W., Suite 294, Washington, D.C. 20001, phone (202) 624-3550, FAX (202) 624-3554 or e-mail [kjackson@sso.org](mailto:kjackson@sso.org).

## Free Wetlands Tabloid

"Wetlands - Understanding A Resource," a 16-page tabloid on Nebraska wetlands are available free from the UNL Water Center/Environmental Programs.

The tabloid has information on a wide variety of wetland issues. It includes a pull-out map of Nebraska's wetland complexes, wetland policy issues, a youth page and a listing of agencies dealing with wetlands.

To get your copy, contact Water Center/Environmental Programs, School of Natural Resource Sciences, University of Nebraska, P.O. Box 830844, Lincoln, NE 68583-0844. Phone (402) 472-3305 or e-mail [sress@unlinfo.unl.edu](mailto:sress@unlinfo.unl.edu). Schools, agencies and non-profit organizations may request multiple copies for distribution or program use.

## Go Big Flush

Just as the Nebraska football team needs to rush, Husker fans need to flush.

Each time the Cornhuskers play on television, the city of Grand Island reports surges in water demand during commercials, at half-time and at game's end.

Water officials say it's no surprise why. Husker fans put things "on hold" to watch the Big Red on the field. For example, the city's water demand fluctuated by as much as 2,000 gallons per minute during the first half of the Texas A&M game on Oct. 10. Water demand jumped by 40 percent immediately at the end of the game.

City utilities director Gary Mader said the spikes in water demand "are typical of a Nebraska game that's televised."

Mader said the city's water data system is used to record historical data on water usage. The water demand spikes are obvious on any major event with a definite intermission.

"We know it will be happening on important football games," Mader said of the flush rush.

*(Editor's Note: From the AP and an article in the December, 1998 issue of U.S. Water News).*

## Becoming A Groundwater Guardian

If your community is concerned about groundwater it may be time to become part of the international Groundwater Guardian program.

Groundwater Guardian, a program of The Groundwater Foundation, is designed to encourage and recognize citizen involvement in local groundwater protection projects. These activities are chosen by the participating community and can cover a wide range of education and awareness programming as well as implementation of wellhead protection plans and involvement in local land-use ordinances.

Member communities form a team with representation from local

business, agriculture, government, education and citizen groups to plan and implement community groundwater protection projects. Progress toward these goals results in Groundwater Guardian designation for the community.

Membership benefits include:

- A copy of the foundation's groundwater protection Public Service Announcement.
- A Groundwater Guardian Assistance Kit that includes a variety of valuable resources and teaching materials.
- Free subscriptions for all team members to *The Aquifer*, the foundation's award-winning quarterly newsletter.
- An exclusive numbered plaque and easy-to-read community awareness road sign.

- Exclusive use of the Groundwater Guardian name and logo.

For more information, contact The Groundwater Foundation at (800) 858-4844 or e-mail [rachael@groundwater.org](mailto:rachael@groundwater.org) and request a copy of the 1999 *Guide to Groundwater Guardian*.

## Sink Your Feet In It

Application deadlines are nearing for this summer's Groundwater University at Long Pine.

All students entering grades 7-12 in the 1999-2000 school year are eligible to apply and up to 25 will be chosen to participate. Selection is based on groundwater knowledge and experiences, future goals for groundwater-related study and/or career and a desire to share information through school and community projects. Registrations on or before March 26 are \$95. After that date it will cost \$120. GU dates are June 23-26.

GU participants will experience ground and surface water connections, the Niobrara River, take part in a number of water quality experiments, visit a wildlife refuge, shadow groundwater professionals and have lots of fun and meet new people.

For information or to obtain a registration brochure, contact Wendy Conrad, Groundwater University Director, P.O. Box 22558, Lincoln, NE 68542, phone (800) 858-4844 or e-mail [wendy@groundwater.org](mailto:wendy@groundwater.org).



## FEBRUARY

17: Water Resources Seminar, Susan Seacrest, founder and president, The Groundwater Foundation, 3 p.m., Room 116 L.W. Chase Hall, UNL East Campus, Lincoln. Open to the public. For information, phone (402) 472-3305 or e-mail rkuzelka@unlinfo.unl.edu

24: Water Resources Seminar, Ron Bishop, manager, Central Platte Natural Resources District, Grand Island, 3 p.m., Room 116 L.W. Chase Hall, UNL East Campus, Lincoln. Open to the public. For information, phone (402) 472-3305 or e-mail rkuzelka@unlinfo.unl.edu

24-25: North Central Aquaculture Conference, Columbia, MO. Contact Chuck Hicks at (573) 526-6666.

24-27: 1999 North Central Region Aquaculture Conference, "Aquaculture at the Crossroads" Linking the Past to the Future. Holiday Inn Select Executive Center, Columbia, MO. For information, contact Jewel Coffman, MU Conference Office, 344 Hearnes Center, Columbia, MO 65211, phone (573) 882-2301 or e-mail coffmanj@missouri.edu

## MARCH

3: Water Resources Seminar, "Development of Habitat Suitability Criteria for Platte River Fish Species," Edward Peters, 3 p.m., Room 116 L.W. Chase Hall, UNL East Campus, Lincoln. Open to the public. For information, phone (402) 472-3305 or e-mail rkuzelka@unlinfo.unl.edu

8-10: 1999 Nebraska Water Conference Council annual conference, "Nebraska Water 2000: Planning for the Future." Regency Inn, Kearney. For information or a registration brochure, contact Steve Ress, University of Ne-

braska Water Center/ Environmental Programs, P.O. Box 830844, Lincoln, NE 68583-0844, phone (402) 472-3305 or e-mail sress@unlinfo.unl.edu

9: Nebraska Learn and Serve Youth Conference, Holiday Inn Centre, 72nd and Grover Sts., Omaha. Call (402) 471-4812 for information.

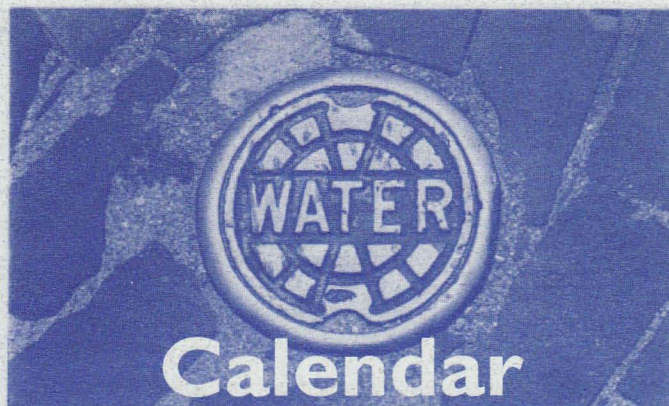
10-12: The 1999 Great Plains Symposium: The Ogallala

Aquifer, Steps to Sustainability. Raising the awareness, appreciation for and knowledge of the Great Plains and the Ogallala Aquifer. For information, contact Jayne M. Salisbury, The Environmental Institute, Oklahoma State University at (405) 744-8433 or e-mail jsalis@seic.lse.okstate.edu

23: 1999 Children's Groundwater Festival, Central Community College/College Park, Grand Island, 8 a.m. to 4:30 p.m. For information, contact The Groundwater Foundation at (402) 434-2740.

24: Water Resources Seminar, "Williams Lecture," Ronald Linsky, executive director, National Water Research Institute, Mountain Valley, CA., 3 p.m., Room 116 L.W. Chase Hall, UNL East Campus, Lincoln. Open to the public. For information, phone (402) 472-3305 or e-mail rkuzelka@unlinfo.unl.edu

25: Earth Wellness Festival, Southeast Community College, Lincoln, 9 a.m. to 4 p.m. For information, contact Harry Heafer at (402) 441-8035, Syd Hime at (402) 476-2729, John J. Chess (402)



441-8027 or Arlene Hanna at (402) 441-7180.

31: Water Resources Seminar, "Unsaturated Hydraulic Properties for Movement of Water or Nonaqueous Phase Liquids in Soil," Joseph Skopp, 3 p.m., Room 116 L.W. Chase Hall, UNL East Campus, Lincoln. Open to the public. For information, phone (402) 472-3305 or e-mail rkuzelka@unlinfo.unl.edu

## APRIL

7: Water Resources Seminar, "Lake Restoration: From Predictive Ecology to Field Application," John Holz, 3 p.m., Room 116 L.W. Chase Hall, UNL East Campus, Lincoln. Open to the public. For information, phone (402) 472-3305 or e-mail rkuzelka@unlinfo.unl.edu

14: Water Resources Seminar, "Modeling of Stream-Aquifer Interactions Along the Republican River Valley in Nebraska," Xon-Hong Chen, 3 p.m., Room 116 L.W. Chase Hall, UNL East Campus, Lincoln. Open to the public. For information, phone (402) 472-3305 or e-mail rkuzelka@unlinfo.unl.edu

10-14: Seventh Multidisciplinary Conference on Sinkholes and the Engineering and Environmental Impacts of Karst, with an introductory course on applied Karst geology and hydrology. Sheraton Inn, Harrisburg, PA. For information and registration forms, contact Ms. Gayle Herring at (423) 483-7483 or e-mail pelaor@usit.net

15-17: NC PETE annual conference, "The Green Campus and Green Campus Learning Initiatives," Green Bay, WI. Contact the Hazardous Materials Training and Research Institute at (800) 464-6874 or at www.hmtri.org for more information.

21: Water Resources Seminar, "Water Quality at Confined Animal Waste Lagoons," Roy Spalding, 3 p.m., Room 116 L.W. Chase Hall, UNL East Campus, Lincoln. Open to the public. For information, phone (402) 472-3305 or e-mail rkuzelka@unlinfo.unl.edu

28: Water Resources Seminar, "An Answer for Bessey: Ecosystem Consequences of Woody Vegetation in the Sand Hills," David Wedin, 3 p.m., Room 116 L.W. Chase Hall, UNL East Campus, Lincoln. Open to the public. For information, phone (402) 472-3305 or e-mail rkuzelka@unlinfo.unl.edu

enrollment application and more information, contact Wendy Conrad, Groundwater University Director, P.O. Box 22558, Lincoln, NE 68542, phone (800) 858-4844 or e-mail wendy@groundwater.org.

*You Are Invited To....*

### The 1999 UNL Water Resources Seminars Spotlighting Water Research

Public lectures each Wednesday at 3 p.m.  
from Jan. 13 through April 28

(except March 10 and 17)

All lectures are in Room 116,  
L.W. Chase Hall, UNL  
East Campus, Lincoln

For a schedule phone  
(402) 472-3305



# Joint Research Aims To Reduce Blue River Basins Herbicide Runoff

by Steve Ress

Computer modeling is helping find ways to reduce herbicide runoff into Blue River Basins streams and rivers that can effect downstream drinking water quality.

University of Nebraska and Kansas State University have teamed on a research and extension effort to reduce nonpoint source runoff pollution affecting drinking water quality in several Kansas communities, said Tom Franti, NU Institute of Agriculture and Natural Resources (IANR) surface water management researcher.

The project focuses on how grain producers in the 9,700-square-mile Blue River Basins area of southeast Nebraska and northeast Kansas use and apply herbicides. Herbicide runoff from fields sometimes contain levels of atrazine and sediments that can contaminate Kansas' Tuttle Creek Reservoir, a major drinking water source for Kansas City, Topeka and other Kansas communities.

Franti and Brian Benham, an IANR water management engineer, collected atrazine runoff data in the Nebraska basin from 1994-1997 and

used it in a computer model to evaluate atrazine losses from three common tillage practices.

"We then used the model to help determine what herbicide management and tillage practices hold the most promise for reducing

with disk-till; using preemergent band application at planting and postemergent broadcast application with ridge-till; or postmerge broadcast application with slot plant.

"Our objectives with this research are to increase the use of best

*"Our objectives with this research are to increase the use of best management practices to reduce the potential for atrazine runoff."*

*—Tom Franti*

the amount of atrazine runoff from fields," Benham said. They evaluated disk-till (conventional till), ridge-till (minimum till) and slot plant (no-till).

Early results indicate certain practices could reduce average annual atrazine runoff by 50 percent or more. They are: using preemergent incorporation broadcast application at planting or postemergent broadcast application four weeks after planting

management practices to reduce the potential for atrazine runoff and increase the use of sediment control practices such as vegetative filter strips," Franti said.

A U.S. Geological Survey water resources research grant helps fund this research.

## WATER CENTER/ENVIRONMENTAL PROGRAMS

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