Knapp named LTAP director

“It’s great to return to Iowa and focus on providing effective materials and useful training opportunities.”

Crash Information and Research Center, a nine-state pooled-fund center currently led by the FHWA; and program director in the Engineering Professional Development Department, University of Wisconsin.

The common thread in Keith’s career has been his focus on transportation safety and training, most specifically on the operational and safety impacts of roadway characteristics. He has

- Developed, organized, and/or taught a program of 9 to 12 transportation-related training courses each year throughout the United States
- Been an instructor in various formats, including electronic and face-to-face training
- Organized and been an instructor of the Wisconsin LTAP Highway Safety course, offered seven times a year
- Helped complete contract training courses for state DOTs, the FHWA, and the Institute of Transportation Engineers
- Organized an annual symposium for the Deer-Vehicle Crash Information and Research Center

Keith’s involvement with both local and national safety and training-related efforts will benefit Iowa’s local transportation community.

“It’s great to return to Iowa and focus on providing effective materials and useful training opportunities,” Keith says.

“I have a lot to learn about Iowa’s local street and road agencies, but the bottom line is I’m happy to be part of a program that helps actively respond to the ever-increasing demands on local professionals’ time and resources.”

And we’re happy to have you here, Keith. Welcome, and best wishes.
Just say no to noxious weeds

Toxic and/or invasive weeds take a huge economic toll every year in Iowa. They

• Displace and destroy native ecosystems
• Put pressure on endangered species
• Impede opportunities for recreational activities
• Disrupt agriculture by spreading into cropland

For these reasons, public agencies need to do their part in properly managing noxious weed populations in public rights-of-way.

Leafy spurge and Canada thistle

Two of the most prominent noxious weeds in Iowa include leafy spurge and Canada thistle.

Leafy spurge. Leafy spurge is a perennial herb with yellow flowers that can reach 2½ or 3 ft tall. The stems usually cluster from a vertical root that can extend several feet into the ground.

Leafy spurge displaces native plants in prairies and fields. It can grow in moist or dry soil conditions, but it thrives in dry conditions when there is less competition from native plants.

Once established, leafy spurge prevents growth of other plants by releasing toxins. If ingested, these toxins also threaten many animals. Ingesting too much can be fatal.

Canada thistle. Another noxious perennial herb in Iowa is Canada thistle. It has purple, lavender, and white flowers that bloom from June through October. It can reach 2 to 4 ft tall. The stem is branched and prickly, as are the leaves, which grow singly and alternately from the stem.

Canada thistle establishes itself by crowding out other plants through shading, competing for soil resources, and releasing toxins that poison surrounding species.

Management responsibilities and options

It is important to prevent noxious weeds from spreading to crop or pasture areas where they can displace grain crops or be consumed by livestock.

In Iowa, county weed commissioners are required to eradicate noxious weeds on all public land and enforce eradication by landowners of private land. Although “eradication” is stipulated, land managers have acknowledged that some weeds cannot be fully eliminated. They can, however, be suppressed and controlled through a variety of methods.

Mowing. Cody Peterson, Webster County weed commissioner, encourages anyone who mows and bales ditches to watch for noxious weeds. Do not use any bales containing leafy spurge as fodder. Identify...
Tell us your training needs

To help us choose topics for future LTAP workshops, please complete the following survey and return it by September 15, 2010.

Potential Workshop Topics

For each topic listed below, circle the number indicating the likelihood that you or someone from your organization will attend. Remember, most LTAP training is conducted locally or regionally. (Note: The following topics are in addition to regular LTAP conferences and workshops, such as the Snow Roadeo, Motor Grader Operator Training, Work Zone workshops, etc.)

<table>
<thead>
<tr>
<th>Potential Topics</th>
<th>1 = Very likely to participate</th>
<th>2 = Somewhat likely to participate</th>
<th>3 = Not likely to participate</th>
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<td>Basic and Advanced Math</td>
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<td>Basic Construction Inspection (Technicians)</td>
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<td>Construction Inspection Administration (Engineers/Managers)</td>
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<td>Designing and Maintaining Pedestrian Facilities for ADA Guidelines</td>
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<td>Designing and Maintaining Traffic Signals</td>
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<td>Low-Cost Surface Treatment Rehabilitation</td>
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<td>Management of Signing, Bridge, and Pavement Assets</td>
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<td>Managing Snow and Ice</td>
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<td>Tractor Mower Safety</td>
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Other Potential Topics?
Do you and/or your staff need to improve an activity or process? Tell us about it, and maybe we can provide specific training.

Rainy Day Training Online?
Iowa LTAP is considering supplementing its online Leadership Academy (www.intrans.iastate.edu/ltap/leadership_academy.htm) by developing short, online modules for individual training on specific topics. You and/or your staff could access them during unexpected free time. Minimum fees would be charged.

Do you and/or your staff have access to a computer with internet service for in-house training? (Check one.) Yes No

Assuming quality material, do you think you and/or your organization would take advantage of such resources? (Check one.) Yes No

Comments about online training modules?

Tell us how we can improve LTAP and serve your agency better
Tell us your training needs continued from page 3

### About You

What type of organization do you work for? (Check one.)

- [ ] Local government  
- [ ] State government  
- [ ] Contractor  
- [ ] University  
- [ ] Other _______________________________

Please provide this information so we can enter your survey in the iPod drawing (see opposite side), respond to specific questions or requests, update our records, and build our e-mail list to save printing and postage costs.

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### Send the Completed Form

Fax this form to 515-294-0467

### Thank You!

We appreciate your input.
Reflective Tape and Paint on Guardrails

Reflective tape and paint on guardrails emphasize an area of changing alignment and/or physical width during all hours of the day and provide the driver with additional awareness. Tape has been placed on guardrails on IA 212 between Belle Plain and Marengo and is especially effective when placed on bridge approach and horizontal curve guardrails. In 2007, Sioux County installed reflective paint (paint and beads) on guardrails on B30 just west of K22 and another Sioux County bridge. While still being evaluated, this treatment has been effective on bridge approaches and horizontal curves.

Project contact

Reflective tape
Iowa DOT
Office of Traffic and Safety
800 Lincoln Way
Ames, IA 50010
Phone: 515-239-1557

Reflective paint
Doug Julius, P.E.
Sioux County Engineer
P.O. Box 17
Orange City, IA 51041
Phone: 712-737-2248
dougj@siouxcounty.org

Roadside Cable Barrier

Cable barriers are guardrail made of cable that help protect drivers during run-off-road incidents at hazardous locations (e.g., embankment areas and curves). Beginning in 2008, Winnebago County has installed cable barriers in spot locations. This strategy helps drivers avoid lane departure or hitting immovable hazards near the clear zone, including embankments and bodies of water. While installing cable barriers is expensive, when installed correctly they can help decrease reportable outside curve roadway departure crashes.

Project contact

Winnebago County Engineer
126 South Clark
Forest City, IA 50436
Phone: 641-585-2891
dreisetter@wctatel.net
Roadside Beam Guardrail

Beam guardrails are steel beams mounted on posts that are typically used where lane departure crashes are common and at sites that would result in specially severe damage. This type of guardrail was installed around a lake in Story County in the early 1980s soon after the lake was constructed and before the trees along the edge had matured. Beam guardrails can reduce reportable crashes.

**Project contact**
Darren Moon, P.E.
Story County Engineer
837 N Avenue
Nevada, IA 50201
Phone: 515-382-7355
engineer@storycounty.com

Guardrail at Culvert Ends

Guardrails protect drivers from roadside hazards that cannot be removed. Beginning in the 1980s in Story County, guardrails have been installed at culverts to protect drivers from the drop-offs. The length of guardrail required depends on the culvert dimensions; guardrails can cost between $7,000 and $10,000 per side. This strategy can help reduce all reportable crashes.

**Project contact**
Jim George, P.E.
Dallas County Engineer
415 River Street
Adel, IA 50003
Phone: 515-993-4289
jgeorge@co.dallas.ia.us

Guardrail at Bridge Ends

Bridge guardrails can protect drivers from direct impacts with concrete abutments and from lane departures over embankments. Since the 1970s, Boone County has installed guardrail at most bridges on the Federal Aid Route. The current standard for federally funded bridges is guardrails at all four corners on collector routes (e.g., approach and departure locations) and on the approaches on local routes. Guardrails can cost between $3,000 and $4,000 per corner. This strategy can decrease all reportable crashes and, especially, fatal crashes.

**Project contact**
Jim George, P.E.
Dallas County Engineer
415 River Street
Adel, IA 50003
Phone: 515-993-4289
jgeorge@co.dallas.ia.us
locations that may need special attention, such as treating with herbicides or burning as described below.

Cleaning equipment. Ben Hoskinson, Mahaska County roadside manager, says that management of noxious weeds begins with something as simple as cleaning your equipment thoroughly before leaving a site. Doing so reduces the likelihood of seed transport.

Herbicides. Peterson says that Roundup Ready fields help prevent the spread of leafy spurge into crop areas.

Webster County implements a fall spraying program to treat leafy spurge and Canada thistle. Roadside are treated in a two-year cycle, half in one year and the other half in the second year.

Contractors also apply an herbicide called Milestone. In known problem areas, Peterson does follow-up spot-spraying with Milestone, avoiding areas with native species.

Other chemicals applied by spraying programs to treat noxious weeds include Banvel, Plateau, Glyphosate, and Tordon.

Burning. Webster County does not currently have a burn program, but Peterson says burning can reduce seed germination.

Spraying and burning. A solid strategy is to combine spraying and burning. Apply chemicals in the fall when weed nutrients are concentrating in the root systems, and then follow up the next spring by burning infested areas before seeds develop.

Using biological controls. Biological controls sometimes include the use of insects to minimize noxious weeds. The results from biological controls are not as immediate as from herbicide applications. If the use of pesticides is minimized in the infested area so that biological agents can flourish, however, the results can be very satisfactory.

As an alternative to chemical and mechanical controls, the U.S. Department of Agriculture has reported the success of some biological controls for leafy spurge. These include the following:

- Leafy spurge stem boring beetle (Oberea erythrocephala)
- Leafy spurge flea beetles (Aphthona spp.)
- Leafy spurge gall midge (Spurgia esulae)

Using native vegetation. When a prairie is planted, weeds are smothered by other, more desirable plants. Although establishing prairie can take up to five years, counties can feel the value where it counts—in their budgets, due to savings in mowing and spraying expenses.

A prairie mix in Iowa is quite diverse. It usually includes up to seven native grasses, including big bluestem, little bluestem, Indian grass, and sideoats grama, plus 15 to 30 wildflower species. This variety of species enables the plantings to occupy more ecological niches that would otherwise be susceptible to various kinds of weed infestation.

For more information

Basic information for this article was provided by the Integrated Roadside Vegetation Management (IRVM) program at the University of Northern Iowa. For questions or assistance managing invasive species and noxious weeds, contact the IRVM program manager, Kirk Henderson, 319-273-2813, kirk.henderson@uni.edu.

Or, contact your local weed commissioner: An online list of county contacts is maintained by IRVM: www.uni.edu/irvm/Countycontacts.htm.

Other potential contacts referenced in this article include the following:

- Cody Peterson, vegetation specialist and Webster County weed commissioner, 515-576-4258, peterson@ webstercountyia.org.
- Ben Hoskinson, Mahaska County roadside manager, 641-672-2897, ext. 16, hoskinson@MahaskaCounty.org.

Three publications in the Iowa LTAP library could be useful:

- Back Country Road Maintenance and Weed Management, U. S. Department of Agriculture, Forest Service; 22 pages, P1665.

Concepts in two previous Technology News articles—“Iowa’s Roadside Prairies” (June 1997) and “Why Roadside Management?” (May–June 2000)—are still appropriate. Find them online: www.intrans.iastate.edu/ltap/tech_news/1997/97junetrn.pdf (see page 4) and www.intrans.iastate.edu/ltap/tech_news/2000/00may-ju.pdf (see page 9), respectively.

Conference calendar

August 2010

19-20 Mid-Continent Transportation Research Forum University of Wisconsin, Madison, Wisconsin

September 2010

14-15 SPOT (Snow Plow Operator Training) Workshop Iowa State Fairgrounds, Des Moines Iowa State Fairgrounds, Des Moines

16 Snow Roadeo (Truck, Motor Grader, Loader) Iowa State Fairgrounds, Des Moines Iowa State Fairgrounds, Des Moines

15–17 APWA, Iowa Chapter Fall Conference ISU Alumni Center Ames, IA ISU Alumni Center Ames, IA

23–24 24th Annual Roadside Conference “Native Vegetation at Work” Quality Inn & Suites Ames, IA Quality Inn & Suites Ames, IA


Just say no to noxious weeds continued from page 2
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