

New disease after black walnut trees

MANHATTAN – Basically, the eastern black walnut trees in Colorado Springs and Boulder, Colo., are gone. The black walnuts in Denver are declining rapidly.

The cause is a previously unknown disease, discovered and named just last year. Now called Thousand Cankers Disease, the pathogen has already felled walnut trees in every state west of Kansas except for Montana, Nevada and Wyoming. It typically kills trees within three years.

“The black walnuts in those states were brought in by pioneers or purchased as nursery stock, mostly to shade city streets. If thousand cankers spreads into Kansas, though, it will be entering the half of the United States where the eastern black walnut is a native tree. That could be disastrous – on the scale that Dutch elm disease was disastrous for the American elm,” said Bob Atchison of the Kansas Forest Service.

Scientists are working to develop and test ways to address the disease. So far, their suggestions are: Detect and remove infected trees as quickly as possible, then quarantine the wood until the logs are debarked and properly cured.

“The situation places a special burden on the people of western Kansas,” Atchison said. “Their maintaining a watch is vital because this spring, the disease had reached as far east as Rocky Ford, Colo.

“It’s a burden on anyone who buys wood from out of state, too. An infected, harvested walnut log with its bark attached is an enormous threat to any state where thousand cankers hasn’t spread.”

The forester said the disease’s visible symptoms emerge slowly. They include:

- Dark (canker) stains, running from outer bark into the cambium – which may not be obvious early on, unless the bark’s removed. They become massive in the end stages, particularly to the south and west.
- Wilting leaves and flagging branches that in time lead to a yellowing (thinning) of the upper crown.
- Branch dieback. And, finally, tree death.

How could this happen?
The actual disease carrier is a tiny, brown bark beetle, smaller than the “T” in the U.S. penny’s “In God we trust.” Known as the walnut twig beetle (*Pityophthorus juglandis*), the insect was little more than a nuisance pest until recently. It attacked, but caused little economic damage, to native walnut species in Mexico and the U.S. states of Arizona, California and New Mexico.

“Evidently, the beetle jumped its native distribution and wound up farther north, but how that happened is still a mystery,” said plant pathologist Ned Tisserat, who discovered thousand cankers. “With this beetle came a fungus called *geosmithia*. It had never been reported as a pathogen on trees, so was brand-new.”

Some scientists theorize, however, the change could be an example of an even bigger problem: global warming, which may be expanding the beetle’s comfort zone northward.

The bark beetle and its disease-causing hitchhiker didn’t have to travel far to meet a new host – the *Juglans nigra*, or black walnut. The nut-producing hardwood had no resistance or immunity to either pest.

“I don’t mean to be Chicken Little,” Tisserat said, “but I have seen butternut canker. I’ve had

oak wilt on my own property and seen other catastrophic problems. This one potentially could match any of those – go toe-to-toe in terms of damage. We’d better stop it in the West.”

Tisserat is well aware of what’s at stake. From 1984 to 2004 he was a plant pathologist and became an Extension program leader at Kansas State University. He’s been at Colorado State since 2004, working in CSU’s Extension Service and as the university’s Integrated Pest Management coordinator.

“I lived 20 years in eastern Kansas and had beautiful black walnuts on my property,” he said. “I just cringe at the thought of what could happen to it.”

Colorado and New Mexico scientists found the first-known cases of 1,000 cankers in the early less than 10 years ago.

“They thought the widespread declines they were seeing in black walnuts were related to drought,” Bob Atchison said. “They didn’t get worried until the drought broke, but the declines remained. Then states to the north began to report similar problems.”

Why are the walnuts dying?
Despite their twiggy name, the immigrant beetles usually attack trunks and branches that are more than three inches across, the forester said. Every one of them bores a bark entry hole no bigger than a pinprick.

Once inside, each beetle immediately starts to develop its part of what will become whole galleries of tunnels just under the bark. That network alone is damaging to wood and tree, Atchison said.

But, the ride-along fungus becomes even more aggressive. It colonizes on the spot and starts to work around its beetle’s tunneling. The fungus kills enough tree tissue to create brown-black blotches of dead cells (cankers) that end up several times the size of the “mine shaft” they surround.

“The beetle galleries and cankers expand throughout the tree and become so numerous that they kill whole branches and finally girdle the trunk – hence the name thousand cankers,” Atchison said. “It’s kind of like a death from a thousand cuts, but the tree actually dies because it can’t maintain a flow of nutrients.”

Researchers have found up to 30,000 adult beetles under the bark in sample logs as small as 6 by 18 inches, he said. A population of that size averages out to 90 beetles per square inch, which, in turn, translates into an equal number of much larger cankers.

“It’s an amazing sight,” he said.

What’s really at stake?
“All of this concern may seem strange for the middle of the great American prairie, but Kansas is the gateway to the eastern forests,” Atchison said. “Besides, Kansas’ native black walnut is the most economically important tree species we’ve got. It produces more than 400 million board feet of high-quality hardwood every year. It’s a renewable resource that benefits wildlife, produces valuable nuts, and accomplishes important ecological tasks. Besides, it grows up to be one great-looking shade tree.”

Kansans who recognize thousand canker symptoms in a black walnut tree or want information about the disease can contact their count or district Extension office. They also can call the Kansas Forest Service office at (785) 532-3300. A description and photos of the disease are at www.ext.colostate.edu/pubs/insect/0812_alert.pdf.

Kansas weather climate offers plenty of ups and downs

MANHATTAN – When it comes to handling the weather, Kansans are a pretty tough crowd and with good reason.

“We have some justification for that,” said Mary Knapp, who serves as the state climatologist. “Our state is in the Continental Climate Zone – which mostly means the oceans and Great Lakes are so far away that they can’t have a tempering effect on our weather.”

Kansas can be much hotter and much colder than the coasts, said Knapp, who is in charge of the state’s Weather Data Library based in Kansas State University Research and Extension. But zone also is determined by an area’s latitude, altitude and other climate affecters.

“For example, there’s an Alpine Zone next door in the Rockies. The California Current brings Alaska’s cold ocean waters down our west coast, keeping temperatures more moderate than would be expected in southern California,” she said. “On the other hand, the Gulf Stream takes the Gulf of Mexico’s warm waters up our southeast coast and eventually makes it possible to grow bananas and Christmas gardens in Great Britain.”

Information about Kansas weather is available on the Weather Data Library Web site: www.ksre.ksu.edu/wdl/. “Weather Wonders” audio reports are available on the K-State Research and Extension/Kansas Radio Network site at www.ksre.ksu.edu/radio/.

BUSINESS DIRECTORY

To have your ad placed in the Business Directory call Jasmine or Heather today at 462-3963.

At Your Service

Give it a try! See what the business directory can do for you!

Live The Life You Always Imagined!

Riverside Plaza offers spacious residences, state-of-the-art appliances, elegant décor, and unrivaled amenities. Luxury retirement living. **You’ve Earned It!**

RIVERSIDE PLAZA
Luxury Retirement Living

600 E. Elm • Salina • 785-822-1300 • www.rsplaza.com

ROSALES PLUMBING

For All Your Commercial & Residential Plumbing Needs
24-Hour Emergency Service Available
Also Servicing Heating, Air and Septic Tank Systems!

David J. Rosales
Owner

(785) 675-8254 or (785) 657-7251
832 17th Street • PO Box 742
Hoxie, Kansas 67740

Need a new insurance partner?

Auto | Home | Business | Farm/Ranch | Life
College | Retirement

David Browne III
550 N Franklin
Colby, KS
(785) 462-3388

FARM BUREAU FINANCIAL SERVICES
Insurance • Investments
www.fbfs.com

Farm Bureau Life Insurance Company/West Des Moines, IA. Farm Bureau Mutual Insurance Company/West Des Moines, IA. Companies of Farm Bureau Financial Services © 2007 FBL Financial Group, Inc. 327

The Tool Box

Kitchen & Bath Sales & Service

Custom Cabinetry • Counter Tops Design, Fabrication & Installation
Wood Floor Installation & Refinishing

Shop 462-7843 • Dennis 443-3140
www.toolboxkitchen.com

WORLDWIDE • Vacation Packages • Cruises • Tours • Groups • Flights • Hotels • Trains • Cars

155 W. 4th, Colby, KS 67701
Phone: 785.462.6999
Fax: 785-460-0852
Toll Free: 1.888.690.7077

VACATION SPECIALS

LAS VEGAS	Air & Hotel	From \$260	4
DISNEY WORLD	Park Passes, Air & Hotel	\$505	4
MEXICO	Air & Hotel	\$800	3
CARIBBEAN CRUISE	Cruise & Air	\$1,050	5
ALASKAN CRUISE	Cruise & Air	\$1,500	7
HAWAII	Cruise & Air	\$740	3
LONDON, ENGLAND	Air & Hotel	\$700	3
AMTRAK EXPLORE AMERICA	Air & Hotel	\$359	3

Per Adult Max 45

Round Trip Travel
BOOK HOLIDAY VACATIONS NOW!
Call for Bus Tours Schedules.

All specials may be for specific dates and are subject to availability

DIAMOND SEPTIC

Having Septic problems and wanna save \$\$\$\$?

We can save your leachfield without digging up your yard and the high cost of replacing it. For a thousand dollars or less, we can add 20-25 years to the life of your leachfield. We also do drain cleaning and septic repairs of all kinds! We guarantee all work we perform.

For more information please call:
(785) 821-4775

NEW SYSTEM PROFESSIONAL WINDOW CLEANING

(800) 611-6735

www.MyWindowCleaner.net
Serving Colby since 1992!

Commercial • Residential • Free Estimates

VISIT

Prairie Museum of Art & History

9-5 M-F
1-5 Sat. & Sun.
Closed Mondays Nov.-Mar.
Closed Holidays

- World Class Kuska Collection
- Kansas KIDS Corner
- Cooper Barn an 8 Wonder of KS Architecture
- Hands on HIGH PLAINS HISTORY
- Prairie Museum Art

Thomas County Historical Society
1905 S. Franklin • Colby, KS 67701
785 460-4590
prairiem@st-tel.net
www.prairiemuseum.org

What’s New At the... Kansas Country Store?

Vintage Soap & Bath

Goat Milk Soaps & Beauty Products
Many Beautiful Colors of Soap!
Vintage Soap & Bath, LLC.
Tanganoxie, KS

Beaded Bracelets and Necklaces
in a Variety of Colors and Styles
Barbella's
Oberlin, KS
785-460-6080
1085 Taylor Ave., Colby

NEW BEGINNINGS COUNSELING SERVICES
J. Douglas Finley, LCSW, LMSW
Kansas Board Certified Counselor

Specializing in: Individual, Child, Adolescent, Marriage and Family Counseling
Services are accepted by BCBS of Kansas
Day and Evening appointments available

422 Smith Drive, Colby, KS
785-462-3308
newbeginningscs@hotmail.com

- **Painting**
- **Residential Roofing**
- **Siding**
- **Commercial Roofing**
- **Small Construction Projects**

AB.CD. ROOFING & CONSTRUCTION
“NOTHING TO IT BUT TO DO IT”

Adam Bowers
Owner/Operator
785-462-0438

Curtis Delany
Owner/Operator
785-269-7324

FAMILY DENTAL CARE
The Latest Technology and Most Complete Care Available!

- Root Canals • Orthodontics
- Implants • Wisdom Tooth Surgery

New Patients Welcome
No Referral Necessary ~ Financing Avail.

1690 W. 4th St., Colby ~ 785-460-3999
Toll Free: 1-866-305-3999

SHAWN D. JENSEN, D.D.S.

ROOFMASTERS

Your Local Roofing Contractor
425 East Hill, Colby, KS
Licensed - Bonded - Insured

RESIDENTIAL
Tamko Shingles
GAF Shingles
Wood Shingles
Metal Roofs

1-800-536-6642
1-785-462-6642

FREE ESTIMATES

COMMERCIAL
Rubber Single Ply
White TPO Single Ply
Built Up Systems
Modified Systems

Elastomeric Rubber Coating For Metal Roofs

You know where one stadium can light up a whole town?

I'M THERE™

Jane W Johnson, Agent
905 E 4th Street
Colby, KS 67701
Bus: 785-462-7525
jane.johnson.gh2i@statefarm.com

In COLBY that's what happens every time our EAGLES come out to play. That's why our State Farm® team is proud to support them all season long.

P087057 10/08 State Farm Mutual Automobile Insurance Company, State Farm Indemnity Company – Bloomington, IL