# Heat one enemy for trees and shrubs

protect trees and shrubs against heat stress and related injury is to help the plants do a better job of cooling themselves.

"The only problem with that is: Heat isn't the only problem," said Jason Griffin, director of K-State Research and Extension's John C. Pair Horticulture Center.

Temperature does affect almost every physiological and biochemical process, he said. Each plant grows best in a particular temperature range. It also has a high and a low threshold for survival.

But, heat nearly always has partners in crime, Griffin said. Moisture, wind, cloud cover and plant species can be just as important. Like heat, all four affect how well plants' cooling system works.

"Another factor this year is that many central U.S. landscape plants are unusually vulnerable to any kind of damage," Griffin said. "They're still trying to recover from 2011's heat and drought."

Still, plant owners can take measures to help ornamentals through summer's searing days.

"You can directly affect the temperature of a plant by shading it. Obviously, this is a labor-intensive step. But, I've seen people use everything from bed sheets to screening to umbrellas, in order to reduce the temperature of leaves. And, as ridiculous as this sounds .. it's worked," he said.

Misting foliage during the afternoon can also help.

"Nurseries with overhead irrigation sometimes turn on the water for 5 minutes per hour through the day's peak heat. This lowers the air temperature surrounding the plants without overwatering," Griffin said.

Monitoring soil moisture is always a critical step.

"A plant can't cool itself without adequate soil moisture," he said. "At the same time, overwatering can shut down plants' cooling system.... Not enough and too much are both bad."

directs, K-State tests everything from shade and ornamental trees to bedding and medicinal plants.

"When seasonal temperatures rise in Kansas, rain totals tend to drop," Griffin said. "Last year,

The best way a plant owner can though, they'd almost disappeared by August. Plus, the Kansas wind machine got fired up, drying things out and reducing our cloud cover.

"That four-part whammy greatly reduced plants' ability to tolerate the high temperatures....

The main way plants cope with heat is a process called transpiration, he said. Roots absorb water from the soil and send it up through their plant. Some of that water then evaporates from the leaves through tiny pores, called stomata. The evaporating water cools each leaf much like evaporating sweat cools skin.

Griffin said, however, a variety of factors can limit or disrupt the transpiration process.

• Dry soil reduces water and signals the stomata to close.

• Wind shakes branches and leaves, causing stomata to close. Plus, wind blows away the thin layer of cool air around each leaf and scatters cloud cover.

• Intense sunlight plays a role in stomata closure and sends leaves' internal temperature above the surrounding air temperature.

"Each of those factors can take lab who died in 1998. part in a complete breakdown of 'heat scorch,' but it's a lot more than that," Griffin said.

Excessive heat makes things worse by upsetting the normal functions of internal plant cells. One of the first processes affected is photosynthesis - the way the plants make food.

"Many plants can recover from this upset overnight," Griffin said. "That only happens ... if nighttime temperatures cool off....

"I've seen well-established, well-acclimated plants make some amazing recoveries from extreme weather events. Hot weather that hangs on, however, can be ... insidious. Its impacts can build and dog, Mozart, while a woman in then linger. So, you can't afford to the state got forms for her cat. let things slide when it comes to helping your most valuable trees and shrubs...."

For the longer term, he recom-At the research center Griffin mended that homeowners shop for plants with good heat- and drought-resistance, plus take advantage of any microclimates in their yard that could provide wind and sun protection for more sensitive plants.



# Dogs, dead get election docs

OLYMPIA, Wash. (AP) - The voter registration form arrived in the mail last month with some key information already filled in: Rosie Charlston's name was complete, as was her Seattle address. Problem is, Rosie was a black

A group called the Voter Parleaf cells. We may call the result ticipation Center has touted the distribution of some 5 million registration forms in recent weeks, targeting Democratic-leaning voting blocs such as unmarried women, blacks, Latinos and young adults.

But residents and election administrators around the country also have reported a series of bizarre and questionable mailings addressed to animals, dead people, noncitizens and people already registered to vote.

Brenda Charlston wasn't the only person to get documents for her pet: A Virginia man said similar documents arrived for his dead

"On a serious note, I think it's tampering with our voting system," Charlston said. "They're fishing for votes: That's how I view it."

Every presidential election cycle brings a variety of registration drives targeting people who typically are underrepresented at the polls, and Republicans have seized on sloppy or questionable

registrations as a sign of potential fraud on the part of Democrats.

It's an issue that is particularly sensitive this year. GOP political leaders have used fears of fraud to successfully push laws that could make voting more difficult by requiring voters to show identification. Democrats have fought the laws, arguing that they can disenfranchise citizens.

Julie Anderson, auditor in Pierce County, Wash., estimates that about two dozen residents have contacted the county about registration forms for dead relatives.

### MISSOULA, Mont. (AP) - The said, with occasional appearances folks at Hi-Noon Petroleum in Montana have a new way to turn coming parades. a dinosaur into gasoline.

They're offering a \$250 gas card for information leading to the safe return of Dino, a 12-footlong fiberglass Sinclair dinosaur that disappeared June 21 from the Crossroads Travel Center west of Missoula.

'We just wonder what happened to him," Hi-Noon marketing manager Earl Allen said Friday. "It's a little odd for him to just walk awav."

The 6-foot tall green dinosaur sat on a hill overlooking Interstate 90 for at least five years, Allen

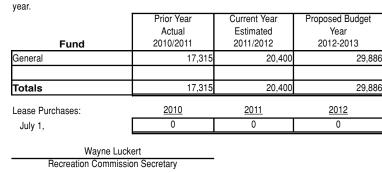
### **Public Notice**

The Governing Body of **Brewster Recreation Commission** will meet on July 23, 2012 at 7:00 p.m. at 202 Third Street, Brewster, KS for the purpose of hearing and answering objections of taxpayers relating to the proposed use of funds.

Detail budget information is available at Brewster USD 314 and will be available at this meeting

### **BUDGET SUMMARY OF EXPENDITURES**

The Proposed Budget Expenditures (below) are the maximum expenditure limits for the budget



(Published in the Colby Free Press on Friday, July 13, 2012)

Monday there will be a Skip Bo cafe crackers, cook's choice comgame to enjoy with friends at the plement.

**Senior Progress Center** 

Senior Progress Center.

10;30 a.m. Wii game.

Activities for the week: Mon-

**Tuesday**: 10 a.m. exercise; 10:30

a.m. domino game. Wednesday:

cookie day. Thursday: 10 a.m.

exercise; 10:30 a.m. pinochle

game. Friday: 10 a.m. exercise;

Menus for the week: Monday:

meat loaf, mashed potatoes, gra-

vy, country-style tomatoes, mixed

fruit. Tuesday: barbecue pork

sandwich, tater triangles, maca-

roni salad with vegetables, canta-

loupe. Wednesday: lasagna, corn,

gelatin with carrots and crushed

pineapple, garlic bread, pudding.

Thursday: hamburger steak,

mushroom gravy, winter mix veg-

etables, peaches, birthday cake.

The Thomas County Nutrition Center invites anyone 60 and day: 10:30 a.m. Skip Bo game. older to lunch Monday through Friday at the senior center. Home delivery is available. A contribution of \$3 per meal is suggested for seniors, \$5.25 for others. Make reservations at (785) 460-

2901 by noon the day before.

## **Red Barn**

Thursday and Friday are citywide cleanup days in Rexford.

Activities: Monday: 2 p.m Barnswallows. Wednesday: 10 a.m. ladies' Bible study. Thursday: 2 p.m. "Come On Down;" 6:30 p.m. spuds 'n splits. Friday: 9:30 a.m. Koffee Klatch; 2:30 p.m Stitch & Chatter."

## Friday: chef salad, citrus slices, Reward offered for dino

in University of Montana Home-"That was his home for a num-

ber of years," Allen said.

Allen said taking the prehistoric icon would have been a bit of a project.

'It's not like you can just throw him in the back of a pickup," he said

Anyone with information on Dino's whereabouts is asked to call Hi-Noon.

### **Public Notice**

#### NOTICE OF HEARING ON ADOPTION OF NEIGHBORHOOD **REVITALIZATION PLAN** FOR SUMMERS TOWNSHIP

You are hereby advised pursuant to the provisions of KSA 12-17, 117, a public hearing will be held at 1267 Hwy 25, Colby, Thomas County, Kansas, on the 19th day of July, 2012 at 8:00 o'clock a.m. to consider whether SUMMERS Township Thomas County, Kansas, should adopt a "Neighborhood Revitalization Plan" for all of the area and territory lying within the corporate limits of such township in Thomas County, Kansas.

The proposed Revitalization Plan is available for public review and consideration at the office of Thomas County Economic Development Alliance, 350 S. Range, Ste. 12. Colby Kansas during the hours of 8:00 a.m. to 12:00 p.m. and 1:00 p.m. to 5:00 p.m.

SUMMERS TOWNSHIP THOMAS COUNTY, KANSAS

BY: Trustee - Craig Reed Clerk of SUMMERS TOWNSHIP

> (Published in the Colby Free Press or Friday, July 6, 13, 2012)



# Take me home?

This friendly German shepherd mix is waiting for a good home at Colby Animal Clinic. He's between 2 and 3 years old. For information, call the clinic at 460-8621. or stop by 810 E. Fourth.

> SAM DIETER Colby Free Press

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