

Eric Baker
Estill County Extension Agent for Agriculture & Natural Resources

With cooler weather around the corner, livestock producers need to beware of the potential of prussic acid poisoning after a frost. Certain plants, such as johnsongrass, sudangrass, and sorghum/sudangrass hybrids contain cyanide-producing compounds that are released with frost damage to the plant. The amount of the compound in a plant depends on one or more factors including the size and variety of the plant, whether drought conditions are present, and the extent of physical damage caused by frost. When an animal eats plants con-

Prussic Acid Caution

taining high levels of the compounds, prussic acid poisoning results. Prussic acid interferes with oxygen utilization.

University of Kentucky Extension Forage Specialists and Ruminant Veterinarian have developed several tips to reduce prussic acid poisoning in livestock:

- 1) Frost/freezing is especially dangerous because the plant cells actually rupture allowing prussic acid to be released. Do not graze until well after the entire plant and new shoots are killed and have turned brown (dry). New forage growth following drought or frost is dangerously high in prussic acid. Wait at least 7 days after a killing frost to allow the cyanide to dissipate;
- 2) Leaves produce much more prussic acid than stems, especially young upper leaves. New shoots often contain high concentrations of prussic acid. Never graze sorghums or sorghum-cross plants less than 15 inches tall ("knee high") to significantly reduce the potential for poisoning;
- 3) Feed

hungry cattle hay or grain before allowing them to graze forages which may contain prussic acid therefore reducing the amount consumed. Do not graze at night when frost is likely;

- 4) Drought increases the chance for prussic acid because slowed growth and the inability of the plant to mature favors the formation of cyanogenic compounds in the leaves;
- 5) Do not graze until 2 weeks after a non-killing frost;
- 6) Plants grown in high nitrogen soil (and low in phosphorus and potassium) tend to have more prussic acid potential. Splitting nitrogen applications will reduce the risk of toxicity. Herbicides such as 2,4-D can also increase prussic acid for several weeks following application;
- 7) Chopping or ensiling plants high in prussic acid will reduce toxin levels if properly cured. However dangerous levels of prussic acid may remain if extremely high before cutting. If in doubt, analyze suspect forages before feeding;
- 8) Johnson grass and sorghum-sudan

grass hybrids also have the potential for nitrate accumulation, especially during drought conditions. Nitrate tends to accumulate in the lower stem, so cutting hay very short, or overgrazing so that cattle have to eat the lower stem bases (the "stubble") can cause more intake of nitrate and signs similar to prussic acid poisoning. Nitrates can persist even in hay;

- 9) If you cut Johnson grass or sorghum-sudan grass for hay, it is safe from prussic acid poisoning because the hay curing process neutralizes any prussic acid; and
- 10) Wild cherry leaves contain the cyanide compounds. Do not allow access to wild cherry leaves whether they are wilted or not. After storms always check pastures for fallen limbs.

For more information, contact the Estill County Extension office at 723-4557.

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Wishing Well®

2	7	2	6	5	6	2	4	6	4	7	4	6
F	C	R	G	L	I	E	S	V	U	E	R	E
4	3	6	4	7	6	7	5	6	3	5	3	6
R	B	I	O	L	T	E	E	Y	O	I	S	O
3	5	3	7	8	7	2	5	7	5	4	7	3
S	S	S	B	B	R	S	U	A	R	U	T	A
2	5	4	2	6	2	8	4	3	2	4	8	4
H	E	N	I	U	D	E	D	Y	E	E	T	D
3	4	7	8	6	5	2	5	4	6	4	5	6
S	B	E	I	R	T	A	I	Y	B	F	M	E
7	3	7	5	7	3	4	7	4	7	4	5	7
L	Y	I	E	V	E	R	I	I	N	E	A	G
4	5	6	8	6	4	5	2	4	8	5	3	5
N	H	S	D	T	D	E	S	S	Y	A	S	D

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CryptoQuip

This is a simple substitution cipher in which each letter used stands for another. If you think that X equals O, it will equal O throughout the puzzle. Solution is accomplished by trial and error.

Clue: D equals P

DTDKELA JATLCMLN XKUHVLE

LJTKF L ZAHYGFZKE ZATY MGT

JIVLXI L CIXTQ JLAJIA:

"UMIIQIN FTLC."

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CryptoQuote

AXYDLBAAXR
is LONGFELLOW

One letter stands for another. In this sample, A is used for the three L's, X for the two O's, etc. Single letters, apostrophes, the length and formation of the words are all hints. Each week the code letters are different.

QGTDCNH PDTD XCMDNDZ NI

WGJD AUXSZTDC UGQQF KF

BXMXCB NUDW HIWDNUXCB

NI XBCITD. — IBZDC CGHU

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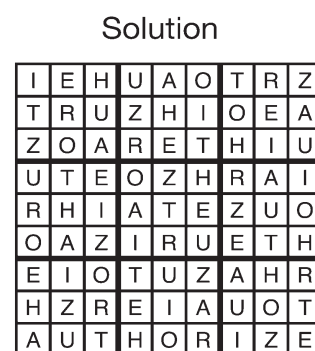
Puzzle Answers

October 4, 2017

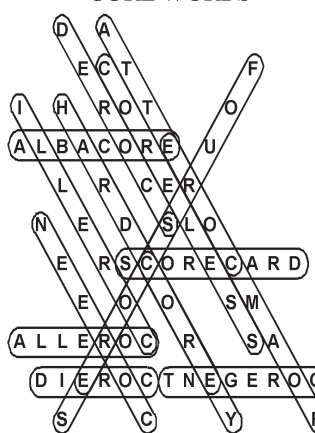
Puzzles4Kids



Letter Box



CORE WORDS



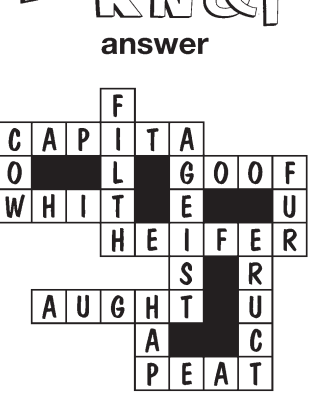
CryptoQuip

answer
Popular Broadway musical about a frightful frog who became a demon barber: "Sweeney Toad."

CryptoQuote

answer
Parents were invented to make children happy by giving them something to ignore. — Ogden Nash

FEAR & KNIGHT



Even Exchange

- answers
- Stream, Scream
 - Bride, Brine
 - Novice, Notice
 - Count, Court
 - Dapper, Damper
 - Grace, Grape
 - Armor, Arbor
 - Casino, Casing
 - Pewter, Pester
 - Blink, Bling

Weekly SUDOKU

Answer

2	8	6	1	5	9	4	3	7
5	3	7	8	4	2	6	1	9
4	9	1	7	6	3	2	8	5
1	4	5	3	2	7	9	6	8
3	2	8	9	1	6	5	7	4
7	6	9	4	8	5	3	2	1
9	7	4	2	3	1	8	5	6
6	1	3	5	9	8	7	4	2
8	5	2	6	7	4	1	9	3

King Crossword

Answers
Solution time: 25 mins.

B	I	N	S	P	O	T	L	A	M	P	
E	T	A	L	R	A	H	E	L	A	L	
E	L	S	I	N	O	R	E	O	B	I	E
P	L	A	N	E	S	M	A	N	A	N	A
		G	A	P	E	P	I	C			
U	M	P	P	E	P	E	N	O	C	H	
F	A	I	R	R	A	P	E	R	I	E	
O	W	N	E	D	D	A	Y	E	A	R	
		A	S	I	F	T	O	E			
R	E	F	U	S	E	T	H	I	R	T	Y
A	T	O	M	T	H	E	O	D	O	R	E
S	U	R	E	C	U	R	E	L	U	L	
P	I	E	D	H	E	N	R	E	E	L	



A carved Halloween turnip

For centuries, Irish folklore told of a trickster named Jack who deceives the devil to avoid going to hell. But Jack is denied entry into heaven also, and is forced to roam the earth as a spirit, carrying a hollowed-out turnip lit with a single burning coal. Folks called him "Jack of the Lantern," and carved their own turnips, potatoes or beets into scary faces to ward off such wandering souls or evil creatures.

The custom came to America with the Irish, who soon found that pumpkins, a native fruit, made perfect jack-o'-lanterns.

- Brenda Weaver
Source: www.history.com, www.wikipedia.org



Calling All Cardinals
If you want cardinals in your yard, fill a tray or tube feeder with safflower seed only. Cardinals love this smooth white seed, while larger birds like grackles and jays don't. Don't be surprised if you see some wrens, tufted titmice or buntings too, since they eat safflower as well.

E-mail: birdingbits@flrr.com

Stickeler's Puzzle

STICKELERS
by Terry Stickels

You may know that a group of bats is called a colony, but can you tell me the most commonly used names of these animal or bird groups?

- 1) flamingos
- 2) bears
- 3) goats
- 4) hyenas
- 5) beavers
- 6) crows

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Stickeler's Answer on Page 11

Jimmie L. Johnson, DMD, PSC
Family Dentistry
87 Wildwood Place (off Court St.)
Irvine, Kentucky
(606) 723-3213

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Farming News

Thursday, October 5th at 1:30pm

"Tree Farmer of the Year"

Thursday, October 5th is 2017 Tree Farmer of the Year Field Day at the Jack Stickney farm at 2225 Lilly Ferry Road in Irvine. The event will be 1:30 p.m. to 6:00 p.m. Educational tour includes tree plantation, shiitake mushroom production, timber stand improvement practices, technical and financial assistance programs, advanced agricultural practices, and wildlife habitat management. Informational booths will be present too. Note that tour stops may involve moderate walking.

Thursday, October 12th at 6:00pm

Cattle Producer's Meeting

The Estill County Cattlemen's Association and Cooperative Extension are sponsoring a cattle producers meeting on Thursday, October 12th, 6:00 p.m. at the Extension office, 76 Golden Court (off Stacy Lane).

The focus for the meeting is cattle nutrition including minerals. Our meal sponsor and guest speaker is Hubbard Feeds representative Shawn Singer. Hubbard Feeds is a division of Alltech. A meal will be provided so make sure to pre-register by October 9th by calling 723-4557. The Estill County Cattlemen's Association will have a business meeting afterward. Everyone is welcome!

Thursday, October 18th

Kentucky Grazing Conference

The 2017 Kentucky Grazing Conference will focus on pasture management to control weeds and improve pasture production and will be held: October 17th in Lexington and October 18th in Hopkinsville. The keynote speaker is Kathy Voth, who has presented nationally on using grazing to control weeds and is a founding partner and editor of the popular online newsletter "On Pasture."

Other speakers will discuss management and chemical options to control weeds including: Dr. Chris Teutsch, UK; Dr. Scott Flynn, DOW; Dr. Greg Brann, NRCS; Dr. Michael Flessner, VT; and Bill Payne, retired dairyman. The popular KFGC Forage Spokesperson contest will be held at the Lexington location. Early registration is \$40 and ends October 4 at <https://2017kfgc.eventbrite.com/> or call 859-257-3358.

Bible Trivia Answers
Now available by Wilson Casey! 2017 Bible Trivia box calendar loaded with daily teasers.

ANSWERS 1 New: (2) Ezekeil; (3) Locusts; (4) Be-niah; (5) Bethel; (6) Colossae