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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 containing high levels

# Prussic Acid Caution

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-sudangrass for hay, it is safe 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 Cooperative Extension Service at 723-4557.

*Educational programs of the Kentucky Cooperative Extension Service serve all people regardless of race, color, age, sex, religion, disability or national origin.*

**Estill Extension Service**  
**AGRICULTURE NEWS**  
76 Golden Court  
Irvine, Kentucky 40336  
Call 606-723-4557

## Kentucky Grazing Conference

Mark your calendars for October 19th to attend the Sixteenth Kentucky Grazing Conference. The conference will be held at The Center for Rural Development, 2292 US-27, #300, Somerset, KY. Registration is at 8:00 a.m. with the program beginning at 9:00 a.m. and ending by 3:30 p.m. The cost is \$20 and only \$10 for students.

Topics for the conference are a producer's guide to pasture-based beef finishing, marketing grass-fed beef 101, cutting edge grazing research, farmer success with NRCS cost share, adaptive grazing for healthy soil, soil health equals farmer wealth, and maximizing sugar concentration in cool season grasses.

If you are interested, call the Estill County Extension Service at 723-4557 or Krista at 859-257-0597.

## Stickeler's Puzzle



Below is an everyday word known to all. See how long it takes you to unscramble the letters and come up with the word. The first letter is "L."

I	R	H	T
A	H	E	L
S	E	S	T
E	G	N	D

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Stickeler's Answer on Page 11

## Wishing Well®

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

HERE IS A PLEASANT LITTLE GAME that will give you a message every day. It's a numerical puzzle designed to spell out your fortune. Count the letters in your first name. If the number of letters is 6 or more, subtract 4. If the number is less than 6, add 3. The result is your key number. Start at the upper left-hand corner and check one of your key numbers, left to right. Then read the message the letters under the checked figures give you.

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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: M equals R

QAXH ZXOUAXMQLMDXMR RNHY, N  
UANHD UAXW'MX JMLFOFZW REJXM  
OU FXZUNHY LEU UEHXR.

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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.

QBVKDO GDVG KQ WDHKCN  
LBFX VBWZDCL ARRO DG TBWR,  
RPRC GTBFNT LBF UKQT GTRL  
URXR. — DCBCLWBFQ

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# AUCTION

(ABSOLUTE - RAIN OR SHINE)

Saturday, Oct. 1<sup>ST</sup> at 10:00AM

## REAL ESTATE

Barnes Realty & Auction has been authorized to sell at public auction the house & lot located at 124 High Street, Irvine, Kentucky.

**LOCATION:** 124 High Street, Irvine, Ky.. From Irvine, take Broadway approx.. 1.3 miles, turn left & signs will be posted.

**REAL ESTATE DESCRIPTION:** The house size is approx. 28' x 34' with first level consisting of a living room, bedroom, kitchen, dining, den and bath, and second level has 2 bedrooms. There is a 10' x 23' front porch and a 8' x 27' back porch (both porches have tin roofs). The dwelling has a floor furnace and a concrete block foundation and shingled roof.

The lot size is approx.. 45' x 144.6'. (Deed Book-179, Page-174, Estill County Clerk's Office).



124 High Street, Irvine, Kentucky

**TERMS:** 10% down day of sale with balance on or before 30 days with delivery of deed. 2016 property taxes will be prorated. Property is being sold in "As Is" condition with no warranties expressed or implied. Any & all inspections are the responsibility of the buyer to be made prior to day of sale. Possession will pass with deed. Announcements day of sale takes precedence over printed material. Not responsible for accidents.

**AUCTIONEER'S NOTES:** House needs some repair. Would make excellent rental property. Call for more information or inspection of property. Remember-this is an ABSOLUTE AUCTION! So - Be There-Bid Last & Buy!

## Barnes Realty & Auction



Barbara Barnes  
Broker

(606) 723-5396  
Irvine, Kentucky



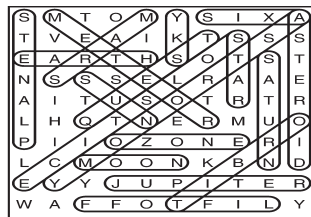
Donnie Barnes  
Jeff Carter  
Auctioneers

# Puzzle Answers

September 28, 2016

## Puzzles4Kids

Answer



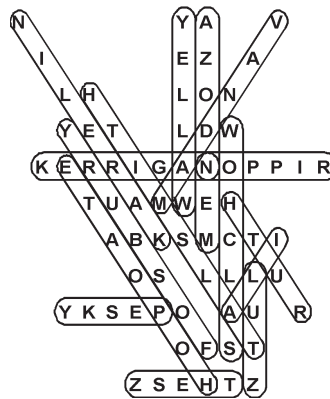
Riddle Answer:  
To visit the Milky Way.

## Letter Box

Solution

O	L	R	T	U	D	A	E	B
T	B	E	A	O	L	R	U	D
A	U	D	B	R	E	O	T	L
D	T	B	R	A	U	E	L	O
R	E	A	L	D	O	U	B	T
L	O	U	E	T	B	D	R	A
E	A	O	U	L	T	B	D	R
B	D	T	O	E	R	L	A	U
U	R	L	D	B	A	T	O	E

HAD A SPORTS TERM  
NAMED FOR THEM



## CryptoQuip

answer

When leatherworkers sing, I think they're probably super at belting out tunes.

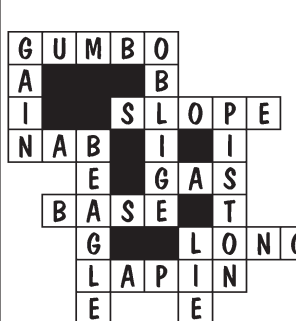
## CryptoQuote

answer

Social tact is making your company feel at home, even though you wish they were. —anonymous

## FEAR & KNIGHT

answer



## Even Exchange

answers

- Shrimp, Scrimp
- Bully, Billy
- David, Davis
- Prank, Frank
- Yankee, Yanked
- Bitter, Butter
- Hoist, Moist
- Orion, Onion
- Market, Marker
- Pocket, Picket

## Weekly SUDOKU

Answer

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

## King Crossword

Answers

Solution time: 25 mins.

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

## Bible Trivia Answers

Casey's trivia book "Know It? ... or Not?" is available from BearManorMedia.com

**ANSWERS:** (1) Neither; (2) Wine; (3) Stephen; (4) Nahum; (5) 700; (6) Jeremiah