

**Eric Baker**  
Estill County Extension Agent for Agriculture & Natural Resources

## Study finds common equine parasite misidentified in textbooks

really the forgotten parasite," Nielsen said. "It is almost never mentioned in the textbooks, and most people have only heard about one roundworm species infecting equids."

P. univalens was discovered more than 130 years ago. The species only possesses one germ line chromosome pair as opposed to two for P. equorum, but the two species are otherwise considered structurally identical.

"We really wanted to find specimens of both species to study and find differences in their DNA," Nielsen said. "The only way to tell them apart is to look at their chromosomes, so we invited a leading expert, Dr. Clara Goday, to the Gluck Equine Research Center to teach us the delicate technique of parasite karyotyping."

Karyotyping is a technique to study and characterize chromosomes in a sample of cells.

For the study, 30 live worms were obtained and dissected. All of the samples were identified as P. univalens. Then, the karyotyping technique was performed on ascarid eggs from foal fecal samples. P. equorum was not identified among these, whereas P. univalens was

found in 17 samples, with the remaining eight being inconclusive.

"We were part of another study analyzing numerous Parascaris specimens from several different continents, and the conclusion there was that only one species was found," Nielsen said. "We compared genetic information obtained for P. univalens in our study with gene codes already published as P. equorum and found that they were probably mislabeled."

Others from the UK Gluck Center involved in the study were Jennifer Bellaw, a doctoral student in veterinary science; Eugene Lyons, professor; and Teri Lear, associate professor. The group from the UK Gluck Center collaborated with Jianbin Wang, assistant professor, and Richard Davis, professor, University of Colorado School of Medicine; and Clara Goday at Centro de Investigaciones Biologicas in Spain. The article was published in the December issue of Parasitology Research.

The mission of the Gluck Center, a UK Ag Equine program in the College of

Agriculture, Food and Environment, is scientific discovery, education and dissemination of knowledge for the benefit of the health and well being of horses. The Gluck Center faculty conducts equine research in six targeted areas: genetics and genomics, infectious diseases and immunology, musculoskeletal science, parasitology, pharmacology/toxicology and reproductive health.

For more information on the Gluck Center, visit <http://www.ca.uky.edu/gluck>



### Weed Watch

I keep my backyard in a very natural state and do not use pesticides. What may look like an ugly weed really is not to the bees that come to my yard. I love to watch them climb in and out of flowers drinking the nectar. Nature has it all figured out!

E-mail: [birdingbits@cflrr.com](mailto:birdingbits@cflrr.com)  
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## Wishing Well®

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

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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## 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.

R C R F L N P W D T L K P O P

A K G D A R G N X R R V D M U I V

B D Y K Y K R M R D U K S G F O G F

Y K R A F R E D Y G F O .

— G S O A I F R G F D U D M

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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: O equals P

O D O Q P L F V H M S D N L C D Q M L

Z L N H P X D Z Z L V B H D W S P D M B H W K

G U V H K W U F V : " U R U F X C D G X

P D R U V F L H N U W M . "

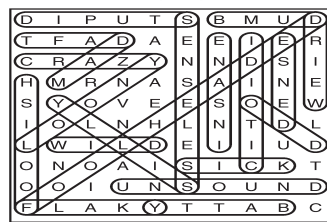
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## Puzzle Answers

March 25, 2015

### Puzzles4Kids

Answer



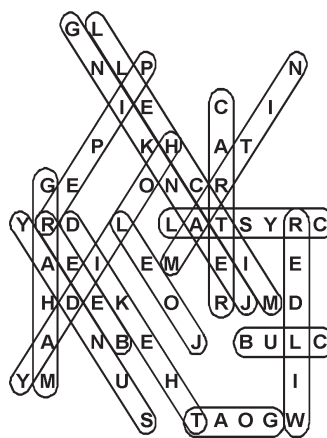
Riddle Answer:  
A raven lunatic.

### Letter Box

Solution

N	O	T	U	I	E	K	Q	M
E	Q	U	M	N	K	I	O	T
M	I	K	T	Q	O	E	U	N
U	T	M	I	E	N	Q	K	O
I	N	O	K	M	Q	U	T	E
K	E	Q	O	U	T	N	M	I
O	M	N	Q	K	I	T	E	U
Q	U	I	E	T	M	O	N	K
T	K	E	N	O	U	M	I	Q

### BILLYS AND BILLIES



### CryptoQuip

answer

Popular sitcom about a family of fashion clothing designers: "Everybody Loves Raiment."

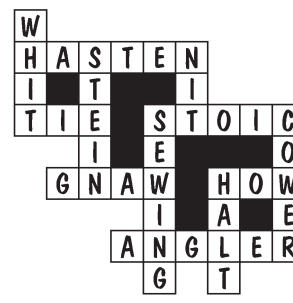
### CryptoQuote

answer

Every family has a choice of keeping up with the neighbors or the creditors.  
— OBSCURE ORIGIN

### FEAR & KNIGHT

answer



### Even Exchange

answers

- Locket, Locker
- Scald, Scold
- Recent, Relent
- Worth, North
- Chair, Choir
- Assume, Assure
- Peach, Peace
- Coffee, Toffee
- Roost, Roast
- Tangle, Tingle

### Weekly SUDOKU

Answer

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

### King Crossword

Answers

Solution time: 21 mins.

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

### Bible Trivia Answers

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

ANSWERS (1) Neither; (2) Eating; (3) Blood; (4) Je- thro; (5) Mariners; (6) Lfe

## UK COOPERATIVE EXTENSION SERVICE

University of Kentucky - College of Agriculture

### Estill County

### 4-H Youth Development

**Isaac L. Hollon**  
Estill County Extension Office

Thursday, Friday, Saturday, March 26<sup>th</sup>, 27<sup>th</sup> & 28<sup>th</sup>

### Hunter's Education Class (Orange Card)

There will be a Hunter's Education Class (orange card) at the Estill County Extension Office. The 3-day class will be Thursday and Friday, March 26th & 27th from 6-9 p.m., and Saturday, March 28th starting at 9 a.m. at the Estill Co. Sportsmen's Club. You must attend all 3 classes to obtain your orange card. Ages 9 and older (as of March 28). **Effective March 1, 2014, KY Dept. of Fish & Wildlife requires online pre-registration for all hunter education courses statewide.** Following is the registration link for the Estill County class: <http://www.registered.com/events/view/57999>

For more information, call the Estill County Extension Office at 606-723-4557.

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

## Farm News

Thursday, April 2, 2015, 9am-4pm

### Tree Seedlings Giveaway

The Estill County Conservation District will have tree seedlings to give to Estill County landowners on Thursday, April 2. Seedlings will be given on a first come limited basis, as long as the trees last. Seedlings may be picked up at the Estill County Conservation District office building located at 1505 Richmond Road, Irvine, across from Bunt Gross Auto, between the hours of 9:00 a.m. to 4:00 p.m.

The species available will be: Eastern Redbud, Cypress, Washington Hawthorn, Persimmon, Pecan and White Pine.

Starting April 1, 2015

### Beef Producers Approve Check Off

Kentucky beef cattle producers voted to assess themselves an additional \$1 per head on cattle marketed in Kentucky in a statewide referendum held in November.

Producers who pay the assessment may request a refund from the Kentucky Cattlemen's Association in writing within 30 days of the date that the assessment is collected.

For more information, contact Dave Maples at (859) 278-0899 or [dmaples@kycattle.org](mailto:dmaples@kycattle.org).

## Stickeler's Puzzle



What is the next number in the mathematical sequence below?

4 18 48 100 180 294 448 ?

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Stickeler's Answer on Page 11

## FARM SERVICE AGENCY AGRICULTURE NEWS

Richmond FSA Service Center  
1024 Ival James Blvd., Ste A-2  
Call 888-758-6909

### Livestock Indemnity Program (LIP)

The Livestock Indemnity Program (LIP) provides assistance to eligible producers for livestock death losses in excess of normal mortality due to adverse weather and attacks by animals reintroduced into the wild by the federal government or protected by federal law. LIP compensates livestock owners and contract growers for livestock death losses in excess of normal mortality due to adverse weather, including losses due to hurricanes, floods, blizzards, wildfires, extreme heat or extreme cold.

For 2015, eligible losses must occur on or after Jan. 1, 2015, and before December 31, 2015. A notice of loss must be filed with FSA within 30 days of when the loss of livestock is apparent. Participants must provide the following supporting documentation to their local FSA office no later than 30 calendar days after the end of the calendar year for which benefits are requested:

- Proof of death documentation
- Copy of growers contracts
- Proof of normal mortality documentation

USDA has established normal mortality rates for each type and weight range of eligible livestock, i.e. Adult Beef Cow = 1.5% and Non-Adult Beef Cattle (less than 400 pounds) = 3%. These established percentages reflect losses that are considered expected or typical under "normal" conditions. Producers who suffer livestock losses in 2015 must file both of the following:

- A notice of loss the earlier of 30 calendar days of when the loss was apparent or by January 30, 2016
- An application for payment by January 30, 2016.

Additional Information about LIP is available at the Richmond FSA office or online at: [www.fsa.usda.gov](http://www.fsa.usda.gov). For more information, contact the Farm Service Agency at 859-624-1980 x 2.

USDA is an equal opportunity provider, employer and lender.

## BROWN FARM MEATS

located inside Discount Tobacco  
389 Richmond Road in Irvine, KY

M-F, 9-6, Saturday, 9-Noon  
(606) 643-5107 or (606) 643-5758

Kentucky Proud Certified  
• Home-Grown • Corn-Fed • USDA-Inspected  
Call for pickup or delivery! We sell any size quantities!

### Products

- Boston Butt Pork Roast . \$3<sup>50</sup>/Lb.
- (Great for Pulled Pork)
- Sausage . . . . . \$3<sup>50</sup>/Lb.
- (Hot, Medium or Mild)
- Whole Cured Ham . . . . . \$3<sup>50</sup>/Lb.
- (Sliced is \$4.00 per Lb.)
- Ham Steak . . . . . \$3<sup>50</sup>/Lb.
- Ham Cutlets . . . . . \$3<sup>50</sup>/Lb.
- (Similar to cube steak, only ham)
- Bacon . . . . . \$4<sup>25</sup>/Lb.
- Jowl Bacon . . . . . \$3<sup>50</sup>/Lb.
- Pork Tenderloin . . . . . \$4<sup>50</sup>/Lb.
- Pork Chops . . . . . \$4<sup>00</sup>/Lb.
- Spare Ribs . . . . . \$3<sup>50</sup>/Lb.
- Country Style Ribs . . . . . \$3<sup>50</sup>/Lb.
- Baby Back Pork Ribs . . . . . \$3<sup>50</sup>/Lb.
- Pork Burgers . . . . . \$4<sup>00</sup>/Lb.
- (Ground, pattied with no seasoning)
- Bratwursts . . . . . \$4<sup>00</sup>/Lb.

### Bundle Packages

- 1/4 Processed Hog . . . . . \$115<sup>00</sup>
- 1/2 Processed Hog . . . . . \$210<sup>00</sup>
- Whole Processed Hog . . . . . \$440<sup>00</sup>