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With 2018 being Kentucky's wettest year on record, we see that the new year seems to be more of the same. This means most livestock producers are dealing with less than ideal conditions, and cattle are showing signs of stress.

"It is important to understand this winter has been relatively easy temperature-wise but difficult for cattle in Kentucky," said Michelle Arnold, UK ruminant Extension veterinarian. "Cows of all ages are losing weight now at levels typically seen in late winter." Prolonged cloudy, wet weather with regular bouts of rain has resulted in muddy conditions that require substantially more energy in feed just to maintain body heat.

"Hay quality is also exceptionally poor this year, as much of it was cut very ripe, rained on while curing and baled with enough moisture to support mold growth," Arnold said. Winter feeding programs on many farms aren't enough to support cattle this year, especially those in late pregnancy or early lactation, or their newborn calves, even though

Continued Wet Weather Impacts Cattle Health

bitter cold hasn't been a factor to this point.

Arnold explained that cattle have several defenses against cold, the first of which is their hair coat. The coat grows longer in the winter and helps conserve heat and repel cold. If an animal's coat cover is wet and muddy, its energy requirements can easily double, especially if the animal has no wind protection. "Energy from intake of hay that is adequate for maintenance in normal years is falling far short of the requirement this year," she said. "Cold conditions are not too difficult for cattle, but when rain and wind are added, heat loss is multiplied several times by the effects of conduction and evaporation. Under these circumstances, the 'wind chill factor' referred to by the meteorologist has real meaning to a cow."

To combat this, producers need to supplement cattle with adequate energy and protein sources. Hay of unknown nutritional quality often does not provide enough nutrition to meet the animal's basic requirements. This will result in depletion of body fat stores, followed by breakdown of muscle protein and finally death due to insufficient nutrition.

"Typically, near the end of most winters, both veterinary diagnostic laboratories in Kentucky receive older beef cows for necropsy," Arnold said. "This winter, malnutrition cases include young cows and pre-weaning/wean-

ing age calves, indicating serious nutritional deficiencies in the feedstuffs, especially the hay produced last summer. The producer may first notice a cow getting weak in the rear end. Later she is found down and is unable to stand. Death follows within a day or two after going down. Multiple animals may die within a short period of time."

At necropsy, the pathologist may find a thin animal with no body fat stores, but the rumen is full of bulky, dry forage material which is poor quality hay. Even the small seam of fat normally found on the surface of the heart is gone, indicating the last storage area in the body for fat has been used up.

Despite having had access to free choice hay, these cattle died from starvation. Although hay may look and smell good, unless a producer tests the hay for nutritional content, he or she does not know the true feed value of that harvested forage.

"It is often difficult for producers to bring themselves to the realization that cattle can actually starve to death while consuming all of the hay they can eat," Arnold said.

She also encouraged producers to look at their mineral supplementation, as copper and selenium levels have been far below acceptable levels this year. Deficiencies can lead to multiple problems, and it's best to address them before they get to that point.

"We want producers to understand how important it is to test their hay. It is simple, inexpensive, and the results are easy to interpret," Arnold said. "Your local Cooperative Extension Service office can help you. Other than that, review your nutrition program, and if your cows are losing weight, consider supplemental feed to get them through the rest of the winter."

UK beef specialists Kevin Laurent, Jeff Lehmkuhler and Roy Burris created an online supplemental feeding tool at <http://forage-supplement-tool.ca.uky.edu/>, where producers may enter hay test values and stage of production to help find appropriate supplements for many operations. Producers should still monitor intake and body condition through the winter and make sure cattle have clean drinking water and access to a complete mineral supplement.

In addition, higher magnesium supplementation should begin to prevent grass tetany in spring calving herds. Late gestating cows need to build up magnesium levels prior to calving. For more information, contact the Estill County Extension office at 723-4557.

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Wishing Well®

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

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: C equals L

DJX YZMK UJM KMGLMG PU ZQG

YWRMG PCDPXK EMU WCC?

W HMCWMLM WU SQU HM

KZSMUJWRE WR UJM DPWUMG.

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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.

S DRWZ RTKROY FIYZVWZG

ADRA AF YQLLZZG SC ADZ

KFVTG FCZ YDFQTG RMMZRV

TSHZ R EFFT IQA IZ KSYZ.

— BFCAZY PQSZQ

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The Garden Bug

Top U.S. Botanical Gardens

- ABQ BioPark Botanic Garden, Albuquerque, NM
- Atlanta Botanical Garden, Atlanta, GA
- Bellevue Botanical Garden, Bellevue, WA
- Tower Hill Botanic Garden, Boylestown, MA
- Brooklyn Botanic Garden, Brooklyn, NY
- Daniel Stowe Botanical Garden, Charlotte, NC
- Minnesota Landscape Arboretum, Chaska, MN
- Chicago Botanic Garden, Chicago, IL

— Brenda Weaver Source: www.theactivetimes.com

Birding BITS

BY Cindy Brook

Feeding Winter Birds

Jill in northern Illinois feeds the birds leftover crackers, raisins, cereal, chips and bread. She also says, "If you get free refills of popcorn at your movie theater -- fill up before you leave. Those huge tubs will give the birds several days of good eating." Thanks for sharing, Jill!

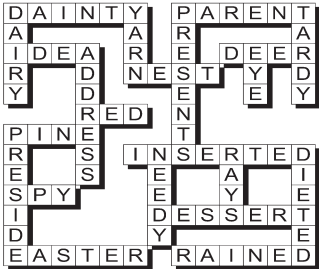
E-mail: birdingbits@cfl.rr.com
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Puzzle Answers

February 13, 2019

Puzzles4Kids

Answer

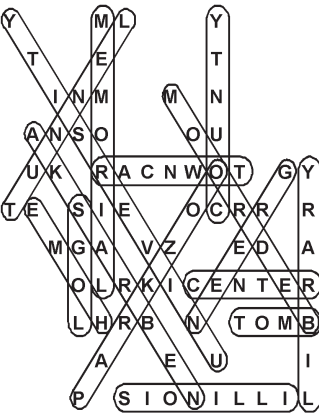


Letter Box

Solution

W	H	A	T	I	L	O	V	E
L	I	O	W	E	V	H	A	T
T	V	E	H	O	A	L	W	I
V	W	T	O	H	I	A	E	L
I	E	L	A	V	W	T	H	O
A	O	H	L	T	E	V	I	W
H	L	V	E	W	T	I	O	A
E	T	I	V	A	O	W	L	H
O	A	W	I	L	H	E	T	V

LINCOLN —



CryptoQuip

answer

Why does the server at our diner always get ill?
I believe it must be something in the waiter.

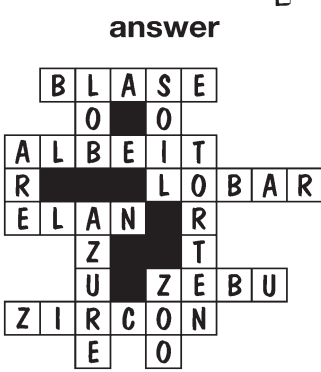
CryptoQuote

answer

I have always observed that to succeed in the world one should appear like a fool but be wise.
— Montesquieu

FEAR & THE KNIGHT

answer



Even Exchange

answers

1. Beetle, Beetle
2. Joist, Joint
3. Corner, Cornet
4. Squirt, Squint
5. Lathe, Lithe
6. Trail, Train
7. Potion, Motion
8. Stint, Saint
9. Twine, Twice
10. Ballot, Ballet

— Weekly SUDOKU —

Answer

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

— King Crossword —
Answers

Solution time: 25 mins.

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

Bible Trivia Answers

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

ANSWER: (1) New; (2) Love; (3) Thistles; (4) Conquerors; (5) Jericho; (6) 2 (Esau and Jacob)

Americanisms

"In matters of style, swim with the current; in matters of principle, stand like a rock."
— Thomas Jefferson

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Stickeler's Puzzle

What number comes next?
HINT: Think of powers.

2 5 10 17 26 37 ?

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Stickeler's Answer on Page 5

Jimmie L. Johnson, DMD, PSC

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