

Eric Baker
Estill County Extension Agent for Agriculture & Natural Resources

According to University of Kentucky Extension ruminant veterinarian Michelle Arnold, "neonatal" calf diarrhea is defined as scours when it occurs within the first three weeks of a calf's life. Bacteria, viruses and parasites can attack the lining of the calf's intestine and cause diarrhea. The decrease in absorption of essential nutrients from milk leads to weight loss and dehydration. If the disease level is severe, calves often die, but even calves that survive will perform poorly for the remainder of their lives when compared to healthy calves. Preventing calf scours involves goes beyond the immune system of a newborn calf. Excellent cow nutrition during and after gestation, an easy calving process, and environmental management factors all contribute to a successful start. On the flip side, an inadequate quantity and/or quality of colostrum, difficulty calving, poor sanitation, cold, wet weather and overcrowding in calving areas all contribute to a higher

Preventing Calf Scours

risk of disease.

A good scours vaccine program in the cow herd is an important first step. Rotavirus, coronavirus, bacteria (K99 E. coli; Clostridium perfringens Type C, Salmonella spp.) and the parasite Cryptosporidia are the most common causes of neonatal calf diarrhea. Controlling rotavirus, coronavirus and E. coli with vaccines can help you significantly reduce or eliminate sickness and death losses due to calf scours. Most beef cows produce adequate colostrum, but sometimes they do not produce the correct antibodies to fight the specific bugs that cause diarrhea. Scours vaccines are formulated to be given to pregnant cows and heifers late in gestation, so they will make the correct antibodies as colostrum is being formed.

A first or primary dose followed by a booster dose is required the first year you use a scours vaccine. After that, just one annual revaccination is required. Product selection often depends on when you plan to work cattle; generally Scour Bos is administered earlier in pregnancy, followed by Guardian and then ScourGuar, which is given late in gestation. If the cow herd has not been vaccinated and calf scours develop, there are oral vaccines available to give to newborn calves, prior to nursing, which can provide some immediate protection in the gut.

Make sure newborn calves receive adequate colostrum within the first six hours after birth. Although

colostrum can technically be absorbed up to 24 hours after 12 hours of life is considerably diminished.

Once the calf has received colostrum from the mother, it is essential to prevent the environmental load of pathogens or "bugs" from overwhelming the calf's immune system. Generally, calf scour pathogens build up in the environment as the calving season progresses. Calving in the same area as older calves greatly increases the risk to the newborn calf, especially in wet or muddy conditions as we often see in the spring in Kentucky. If possible, rotate cows onto clean pastures while cow-calf pairs remain on the old pasture. Additionally, keep the calving area as clean and dry as possible. Even the best calving management will have no effect if the first thing a calf ingests is manure from the calving area.

The cows' diet should provide adequate energy and protein. Calves born to energy deficient cows will have reduced amounts of brown fat, which supply energy for the calf to survive initially. Additionally, calves need adequate protein for vigor after birth. Weak calves cannot produce sufficient body heat and may be slow to stand and nurse. Remember up to 880 percent of fetal growth occurs in the last 50 days of gestation and cows should calve at a body condition score of 5 (heifers at BCS 6).

Calves that experiencing a difficult birth have a great-

er risk for subsequent disease, especially calf scours. Trauma associated with a difficult birth severely impacts the ability of that calf to nurse and absorb colostrum. It is important to provide these calves with colostrum quickly which usually means using an esophageal feeder rather than waiting for the calf to nurse on his own. Even with prevention, you can have a scours outbreak. If this happens you need to reduce newborns' exposure to infectious agents, separate healthy pairs from sick calves immediately and make sure equipment, boots and hands are thoroughly cleaned after handling sick animals. You'll also need to move pregnant cows forward to a clean pasture, maintain clean pens and facilities, reduce stress on cows and calves and assist with calving early as necessary, especially with heifers. Keep animals as clean and dry as possible and provide windbreaks in cold weather. You need to have a good nutrition plan for cows and heifers and make sure calves start nursing as soon as possible after calving to get adequate colostrum (10 percent of the body weight in the first 24 hours with at least 2 quarts during the first 6 hours).

For more information, contact the Estill County Cooperative Extension Service at 606-723-4557 or your large animal veterinarian.

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

The inner petals of this Grandiflora rose are pale orange, with the undersides slightly darker. The outer petals are edged in red, and curl under. The fully-bloomed flower can be 4 1/2" across, have up to 25 petals, and carries a light, pleasing fragrance. A bush of this kind can grow 4 feet tall and 2 feet wide, and display many blooms at a time throughout a growing season. When set next to blue flowers such as delphinium it is especially striking.

- Brenda Weaver
Source: www.allaboutrosegardening.com

Community News

Thursday, January 14th @ 6:30pm

Farmers Market Seminar

The Estill County Extension Service will host a farmer's market seminar on Thursday, January 14th, 6:30 p.m., at the Extension office. Sharon Spencer of the Kentucky Department of Agriculture will be our speaker and discuss selling at farmers markets and ways to help the local market grow. To pre-register, please call 723-4557.

Wishing Well®

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

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.

©2016 King Features Syndicate, Inc. All rights reserved.

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: V equals I

VG KZL YVSA HZUAEAI HAAG NZ
B OLUYQK OZQIA VU
TAUUIKESBUVB, VI NOBN B
TOVEEK GVEEK GVEEAN?

© 2016 King Features Synd., Inc.

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.

MQZV SZV JZ YRLJDQ, GQA
TZX VRYV BOZCRJ DWDQ
COZP JSZLD VSZ JGYM
IGAYT. — BYXJGONS

©2016 King Features Synd., Inc.

Puzzle Answers

January 6, 2016

Puzzles4Kids

- Answer
- | | | |
|--------|---|-------|
| WAGERS | G | SWEAR |
| SALMON | L | MOANS |
| SATURN | A | TURNS |
| SPACER | S | CAPER |
| SKATES | S | STAKE |
| DIFFER | F | FIRE |
| STABLE | L | BEAST |
| SHEILA | I | HEALS |
| PLAYED | P | DELAY |
| PESTER | P | STEER |
| DEGREE | E | GREED |
| RAMBLE | R | BLAME |
| SPARSE | S | REAPS |

FEAR & KNOT

answer

M	A	C	E			
A	U					
S	C	H	E	M	E	
A				L		
W	O	R	M	E	D	
W			C	R	O	W
I	N	M	A	T	E	H
				A	O	
				M	O	M

Letter Box

Solution

N	R	E	Z	I	T	P	O	A
P	A	T	R	O	N	I	Z	E
Z	O	I	A	P	E	N	R	T
E	P	A	I	T	R	Z	N	O
R	T	O	N	E	Z	A	P	I
I	Z	N	P	A	O	T	E	R
A	N	Z	E	R	I	O	T	P
T	I	R	O	N	P	E	A	Z
O	E	P	T	Z	A	R	I	N

Even Exchange

- Donna M. Pettman
- | | |
|-------------------|--------------------|
| 1. Glove, Globe | 6. Drift, Draft |
| 2. Slower, Flower | 7. Margin, Marlin |
| 3. Willow, Wallow | 8. Shrub, Scrub |
| 4. Alter, Altar | 9. Lever, Level |
| 5. Bench, Bunch | 10. Tackle, Tickle |

Weekly SUDOKU

Answer

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

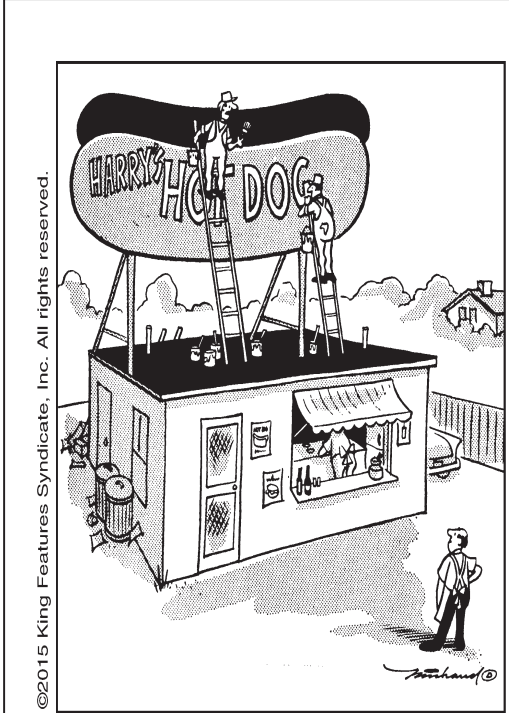
King Crossword

Answers
Solution time: 21 mins.

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

Bible Trivia Answers

- Casey's trivia book "Know It? ... or Not?" is available from BearManorMedia.com
- ANSWERS (1) New; (2) 7; Solomon; (3) Micah; (4) Micah; (5) Salvation



SCRAMBLERS

Unscramble the letters within each rectangle to form four ordinary words. Then rearrange the boxed letters to form the mystery word, which will complete the gag!

Mix
LEMING

Mean
DINES

Stress
BENDUR

Build
TERACE

TODAY'S WORD

Stickeler's Puzzle

STICKELERS [sic]
by Terry Stickels

Which of the following numbers is the odd one out?

2745 8457 4233 5519

6271 3865 4773

©2016 King Features Syndicate

Stickeler's Answer on Page 11

PAINTED ROOFING METAL

We offer 16 colors of our #1 grade metal roofing tin cut to the inch. Now with a 40-year warranty, this ensures a roof that will last for years. We also have 29 gauge Galvalume. We carry all metal roofing accessories! Phone in or Fax orders welcome

Call 606-593-7080

We now accept Credit & Debit Cards!

Wolf Creek Metal

Open five days for your convenience

Mon. -Fri. 8am-5

LOCATED
1.5 miles south of Booneville, KY on Hwy. 11 in the Lone Oak Industrial Park