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Cold Stress and Newborn Calves

occurs after the birthing process because the calf is born soaked with uterine fluids. Other causes of immersion hypothermia of young calves may include being born in deep snow or on wet ground, falling into a creek or being saturated from heavy rains followed by chilling winds.

Faced with a cold environment, the body defends itself in two ways: shivering, to increase muscle heat production, and blood shunting, to reduce heat loss by diverting blood flow away from the body extremities to the body core. Mild hypothermia occurs as the body's core temperature drops below normal (approximately 100° F. for beef calves).

In the early stages, vigorous shivering is usually accompanied by increased pulse and breathing rates. In the case of newborn calves, severe shivering may interfere with its ability to stand and suckle. Erratic behavior, confusion and a clumsy gait, are all signs of mild hypothermia. Producers often refer to these as "dummy" calves. Severe hypothermia results as the body temperature drops below 94° F. Cold nostrils and hooves are early signs that blood is being shunted away from the body's extremities.

Paleness is due to poor oxygenation of the tissues near the body surface. Decreased blood circulation in the muscles of extremities results in a buildup of acid metabolites (waste products). After the shivering stops, it is replaced by muscle rigidity. The pulse and respiration rates begin to slow as the body core cools to 88° F. Below a core temperature of 94° F, the vital organs are beginning to get cold. As the brain cools, brain cell metabolism slows, resulting in impaired brain function. The level of con-



Baby Calves in Winter
University of Minnesota Extension

sciousness deteriorates to eventual unconsciousness. Below 86° F, signs of life are very difficult to detect and the calf may be mistaken for dead. The pupils of the eyes will be dilated and fixed. The pulse may be undetectable. Occasional gasps of respiration at a rate as low as four or five per minute may be the only clue that the calf is still alive. Warming these calves back to normal temperature can often save them unless they go into heart failure.

Treatment of Hypothermia is critical. The two most important factors in calf survival are warmth and colostrum. Before giving colostrum, a chilled calf first needs to be warmed as these newborns are typically too weak to suckle. Karo syrup (dark is preferred) delivered by mouth to a weak calf is a quick source of readily available energy and is rapidly absorbed through the mucosa in the mouth into the bloodstream. Effective methods to warm a calf include:

1. **Floor board heaters of pickup trucks.**
2. **Submersion of wet calves in a warm bath -** you must support the calf to prevent drowning. The water should be gradually warmed to 100° F and will need to be changed to keep it at that temperature.
3. **Placing calves next**

to the heater in the house and/or using a blow dryer to dry and warm the hair coat. Never leave calves unattended next to a portable space heater.

4. **Placing the calf under a heat lamp** or on heating pads-be aware that the calf can get burned from these devices. Do not leave the calf unattended.

5. **Warm blankets** - These should not be so hot that they can cause skin burns. Change the blankets as needed to maintain a consistent temperature and not allow the calf to cool off.

6. **Hot box or warming box** - the temperature should not be so high that burns could result. Some type of venting is necessary to prevent buildup of carbon monoxide and moisture. Air movement is also important to ensure thorough warming of the calf and prevent hot spots in a warming box.

7. **Warm IV fluids** may be administered by a veterinarian.

For more information on beef cattle production and management, contact the Estill County Cooperative Extension Service at 723-4557.

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Wishing Well®

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

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: X equals A

EB XG W.X. CXRFCXWW AZL NXR
X TGXJT BLZ RTFIJNEGD AEJIQZFR,
ER NF XG XZIBQW OLODFZ?

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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.

M SCNGS ZEQQ LSMHRQ
AMOLROL LG LUR IQMBR
ZURSR EL ZEQQ BMCOR
LUR KSRMLROL UMSN.
— KCOLMHG MKSMEL

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Puzzle Answers

February 17, 2021

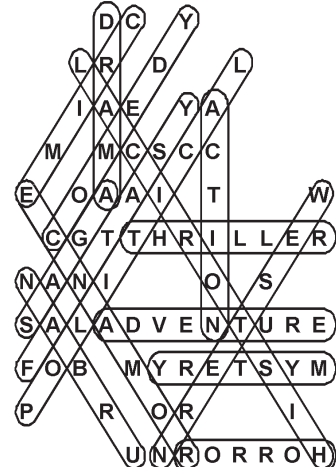
Puzzles4Kids

Answer

What do you get if you cross a sheep and a porcupine?

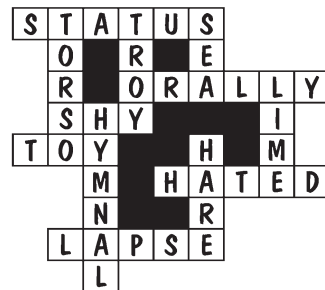
An animal that knits its own sweaters.

LITERARY GENRES



FEAR KNIT

answer



Even Exchange answers

1. Trail, Train
2. Wander, Wonder
3. Gross, Grass
4. Comet, Corset
5. Saber, Sober
6. Jerry, Terry
7. Entire, Entice
8. Ample, Apple
9. Linger, Longer
10. Handy, Hardy

King Crossword

Answers

Solution time: 23 mins.



Weekly SUDOKU

Answer

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

Letter Box

Solution

A	R	E	O	Z	B	N	C	I
N	B	I	C	R	E	Z	A	O
O	C	Z	I	N	A	E	R	B
I	E	B	A	C	O	R	N	Z
R	N	A	Z	B	I	O	E	C
Z	O	C	N	E	R	B	I	A
E	I	O	R	A	Z	C	B	N
B	Z	N	E	I	C	A	O	R
C	A	R	B	O	N	I	Z	E

Bible Trivia Answers

Test Your Bible Knowledge with 1,206 multiple-choice questions by columnist Wilson Casey, is available in bookstores and online.

ANSWERS (1) Neither; (2) Pray; (3) Stephen; (4) 4 months; (5) Oneismus; (6) Wind



Saint John's Wort

Traditionally, sprigs of this plant were harvested in June to honor St. John the Baptist, then hung near a painting or statue of him in the home to protect it from evil spirits. As a garden plant, it performs best in fertile soils with ample moisture, but can tolerate drier conditions once established. Saint John's Wort has long been used in healing treatments for kidney ailments, insomnia, depression, lung ailments and in wound care. - Brenda Weaver

MEDIEVAL WOOD CUT
Source: www.thespruce.com



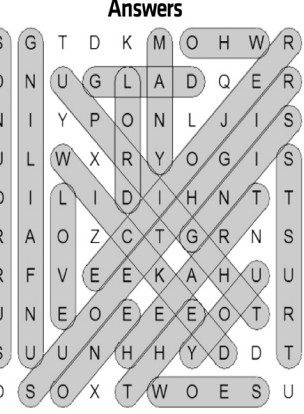
Winter Help

- Fab Five High-Fat Foods:
1. Unsalted peanuts, in or out of shell.
 2. Suet cakes or nuggets -- any flavor.
 3. Hulled sunflower heart chips. (Every bird loves these.)
 4. Black oil sunflower seed.
 5. Natural peanut butter spread on bread and tossed on the ground.

E-mail: birdingbits@cflrr.com
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Puzzle Answers

BIBLE WORD SEARCH



Answers
A ruck for sketching pictures, a
If an L.A. baseball pro has
answer
Cryptoquip
— Gustavo Agrait
the greatest harm.
where it will cause
fastest to the place
A rumor will travel
answer
Cryptoquote

Stickeler's Answer

Stickelers Answer

- 1) stale — steal, teals, least, tales, slate
- 2) stance — ascent, secant, enacts
- 3) stripes — persist, priests, sprites (some references have "esprits")
- 4) sublet — subtle, bluest, bustle
- 5) stained — detains, instead, sainted

Stickeler's Puzzle on Page 7

Bible Word Search on Page 7