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## Improving Reproductive Efficiency In Heifers

Most heifer development programs require that heifers reach the target weight by the onset of their first breeding season. For maximum fertility and reproduction, heifers must have at least one estrus before the breeding season begins. Research shows that fertility increases about 20 percent from the first to third estrus after puberty. Thus, it's logical to manage heifers to reach puberty before the start of breeding season.

Crossbreeding is another management practice to reduce heifers' age at puberty. Crossbred heifers, with a genetic makeup of not more than 75 percent of one breed, have a significantly reduced age at puberty compared to straight-bred heifers. Crossbred heifers also have greater overall fertility resulting from hybrid vigor.

Examine the cowherd to determine the cows' approximate weights and use these data to set the heifers' target weights. Then, determine how much heifers must gain daily to reach the target weight. Once you determine the necessary daily weight gain, develop a ration that provides the proper nutrients to help heifers reach the target weight. Periodically weigh heifers to ensure that they're gaining the appropriate weight. If not, adjust the ration to compensate.

Also, be sure heifers are properly vaccinated according to label and veterinarian recommendations.

Breeding is the final step in managing heifer development. It's advisable to consider estrus synchronization and/or artificial insemination. Some advantages of estrus synchronization are potentially higher pregnancy rates; heavier, more uniform calves at weaning; and increased production and labor efficiency. Using AI gives producers the ability to use superior, more predictable sires. Most calving problems occur when heifers have calves for the first time; thus, there is merit in using estrus synchronization and AI with bulls of proven calving ease on first-calf heifers.


Getting heifers bred as early as possible gives them more time to rebreed after calving. For more information about cattle reproductive efficiency or other cattle topics, contact the Estill County Cooperative Extension Service at 723-4557.

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

To improve the reproductive efficiency, and thus profitability, of a beef cattle operation, you must understand proper heifer development. Properly managing yearling heifer reproduction is the first step toward reproductive efficiency. Your goal is to manage heifers so they'll conceive early by reducing the age of puberty, shortening the time from puberty to conception and increasing fertility.

According to Extension beef specialists, age at puberty is the most important factor in managing heifer reproduction. For puberty to occur, a heifer should weigh at least 67 percent of her expected mature weight. This percentage of mature weight is a heifer's "target weight."

**The Garden Bug** Japanese climbing fern BY BRENDA WEAVER



This native of Asia and Australia was first introduced to North America as an ornamental in the early 1900s. It is considered invasive in the southeastern U.S., and smothers native vegetation by blocking sunlight. It increases fire risk by allowing fire to spread up trees along its vines and leaves.

Source: [www.invasivespeciesinfo.gov](http://www.invasivespeciesinfo.gov), [www.sfrcl.ufl.edu](http://www.sfrcl.ufl.edu)

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1/2 Processed Hog . . . \$210<sup>00</sup>  
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## Farm News

Order through February 20th

### Fruit Tree Rootstock, etc.

The Estill Extension Service will be taking orders for apple and pear rootstocks this month. If you want to propagate a favorite apple or pear, grafting is one of the easiest ways to preserve that cultivar. To graft, you will need scion wood (terminal branch segments from last year's growth collected at the end of February) and a rootstock. If you do not know how to graft, come by the office for information or assistance.

We typically order Malling7 (55% of standard size) and/or MM.111 (80% of standard) semi-dwarf apple rootstock and a pear rootstock. Please place your order on or before January 23rd by calling 606-723-4557. The rootstocks usually arrive by the first week of March. Orders must be prepaid by February 20th.

In addition, we will take orders for strawberry, blackberry, blueberry, raspberry, asparagus, and Candy onion plants. Call our office for details. Plant delivery will be in early April. If you are interested, call the Estill County Extension office at 723-4557. Orders must be prepaid by March 13th.

Tuesday, February 27th

### 2014 Farm Bill Deadlines

The Secretary of Agriculture has announced the timeline that landowners and farmers have to make their decisions as part of implementing the 2014 Farm Bill. Landowners are responsible for making the decisions regarding reallocating base acres and updating yields. Producers decide to elect either the ARC-County, ARC-Individual, or PLC program.

**February 27, 2015:** Landowners have a one-time, irrevocable opportunity to reallocate base and update payment yields.

**March 31, 2015:** Producers have a one-time, irrevocable decision to elect either

- (1) ARC-County or PLC on a covered commodity by covered-commodity basis OR elect
- (2) ARC-Individual for all of the covered commodities on the farm.

**Mid-April 2015 – Summer 2015:** Producers sign contracts to participate in ARC/PLC for 2014 and 2015 crop years.

## Stickeler's Puzzle

**STICKELERS** [sic]  
by Terry Stickels

Match the phobias on the left with their meanings on the right.

- |                 |                    |
|-----------------|--------------------|
| 1. algophobia   | a. fear of heights |
| 2. ergophobia   | b. fear of cold    |
| 3. androphobia  | c. fear of males   |
| 4. acrophobia   | d. fear of working |
| 5. psychophobia | e. fear of pain    |

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### Stickeler's Answer on Page 11

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**Wishing Well**

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

SJA LEJLSTPHO K'TWIBWP

ABZ ASTW ST KBHG JMP

ABZSHWRPJW, G.O., BZ B

OHPX PSBP RJTZ BEJMWG

HW OHEOKTZ.

— QJSW YBZJW DEJAW

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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: D equals E

RO P OVWDRSGDW BVXDK

RGCV P BRCT PGM RK PYY QT

URXKDYO, XRSUC UD QD BPHYDM

CUD YVGD KCWPGSDW?

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## Puzzle Answers

February 18, 2015

**Puzzles4Kids**  
Answer

How do ranch workers get a lot of laughs?

They horse around.

### Letter Box

Solution

B	M	R	H	Y	N	A	D	I
D	N	A	B	R	I	H	Y	M
I	H	Y	D	M	A	R	N	B
A	D	B	I	N	R	Y	M	H
M	Y	N	A	H	B	I	R	D
R	I	H	Y	D	M	N	B	A
H	B	M	R	I	Y	D	A	N
N	R	D	M	A	H	B	I	Y
Y	A	I	N	B	D	M	H	R

— ROSE

**FEAR & KNIGHT**  
answer

H	O	P	S
A	E		
S	L	U	R
I		R	E
T		I	P
W	E	D	S
R	H	O	A
A	N	E	G
G			D

### Even Exchange

answers

- |                   |                    |
|-------------------|--------------------|
| 1. Shiver, Silver | 6. Ellis, Elvis    |
| 2. Adapt, Adopt   | 7. Pewter, Pester  |
| 3. Mutter, Matter | 8. Nanny, Nancy    |
| 4. Genie, Genre   | 9. Chase, Cease    |
| 5. Brave, Crave   | 10. Raffle, Waffle |

### Weekly SUDOKU

Answer

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

### King Crossword

Answers

Solution time: 25 mins.

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

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

**ANSWERS (1) Old:** (2) Didymus; (3) Numbers; (4) Tax; (5) Wise; (6) Balaam