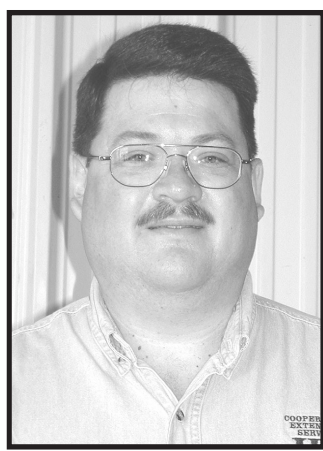


# Tomato Diseases in the Home Garden



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Estill County Extension  
Agent for Agriculture  
& Natural Resources

Garden plants are thriving right now and tomato diseases will increase too. There are several types of garden tomato diseases that you may encounter this season and this article will summarize the diseases and control options.

**Fungal Leaf Spots:** Both Early Blight and Septoria Leaf Spot diseases are widespread. The diseases have been favored by the rain and leaf wetness we have had so far this summer. Early blight is characterized by the brown, somewhat target-shaped leaf spots, often becoming a half-inch or more across. As the lesions come together, the leaves turn yellow, become blighted and may hang from the plant as curled, brown dead foliage. For Septoria Leaf Spot, the end result is the same, but the spots are tan, fairly circular, and usually remain

under one fourth-inch in size. These two diseases can be prevented by application of fungicides containing chlorothalonil (Ortho Garden Disease Control, Daconil, Bonide Fungonil Multipurpose Fungicide) or fixed copper sprays (Bonide Liquid Copper, Ortho Elementals Garden Disease Control), all available at garden centers (read product labels and note pre-harvest intervals). However, little benefit is achieved if one waits until strong activity exists before starting spray programs.

**Fruit Rots:** Blossom-end Rot is not can be avoided with adequate supply of soil moisture and adequate calcium levels (use of calcium chloride foliar sprays may assist as well). There is some Buckeye Rot which causes dark brown to black areas to develop on the fruit surface followed by decay. Unlike Blossom-end Rot, the blackened area is not sunken, and it may appear anywhere on the fruit, but usually on that part touching the soil or closest to the ground. Mulch can be used to reduce exposure of the fruits to the soilborne fungus and will also help reduce the occurrence of blossom-end rot. The Late Blight fungus can also cause blackened areas of the fruit, but may be rough and sunken at the margins compared to Buckeye Rot. Late Blight also attacks the foliage, blighting

leaves, petioles and stems. Home garden fungicides containing chlorothalonil or fixed copper can be used to prevent fruit rots cause by these two fungi.

**Wilt Diseases:** Walnut Wilt affects whole plants due to exposure to the toxin, juglone, produced usually by the roots of walnut trees growing near the garden. The toxin can even be produced by roots decomposing in the garden soil after the trees have been cut down. A brown staining of the xylem tissues in the stem can be seen when cut open. A similar dark staining of the xylem may occur when Fusarium wilt, Verticillium wilt, and even with root-knot nematode. Use of the VFN tomato varieties will prevent the latter three diseases.

**Bacterial Spots:** Bacterial Spot and Bacterial Speck can occur in home gardens. In some cases, the microbe causing bacterial spot may have been splashed to tomatoes in the garden from infected pepper transplants bought at a garden store. Bacterial Spot appears as dark, somewhat angular moist-looking spots on leaves and fruits. Disease-control chemicals containing fixed copper may help suppress this disease, but copper-containing chemicals are only partly effective and can damage the plant. Follow label directions.

**Stem Cankers:** Bacterial

Canker occurs in commercial tomatoes, but less commonly in home garden tomatoes. Look for brown lesions on petioles and stems and wilting and drying of foliage associated with the cankers. The Early Blight fungus also causes brown lesions on leaf petioles and stems, and as is seen on the leaves, the typical concentric texture of the lesion should be visible.

**Mosaic: Tomato Mosaic Virus (TMV)** can cause mottling and mosaic symptoms and somewhat deformed growth of the leaves and uneven ripening and gray wall of the fruit. Where TMV occurs in the home garden, look at the practice of saving tomato seeds from tomatoes harvested one season and planted the next as a possible practice which perpetuates the disease.

A very good publication with great color photos of tomato, pepper, and potato pest problems is UK Extension publication ID-172, An IPM Guide for Common Pests of Solanaceous Crops in KY. Contact us for a free copy.

For vegetable and other plant disease identification and control options, contact the Estill County Extension Office at 606-723-4557.

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## Wishing Well®

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

CY S KGSISDG PRSBTP DR HDZP DY  
BISBTFIP CR NFJ, ECHH EF FRJ WK  
ECZG S BIWONM OWOOM?

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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.

RDTRKD PUO WD FLPA N QT  
NM FNMADI FLDM ALDID'U MT  
JPUDJPKK. N'KK ADKK VTY  
FLPA N QT. N UAPID TYA ALD  
FNMQTF PMQ FPNA CTI URINMS.  
— ITSDIU LTIMUJV

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## Puzzle Answers July 29, 2020

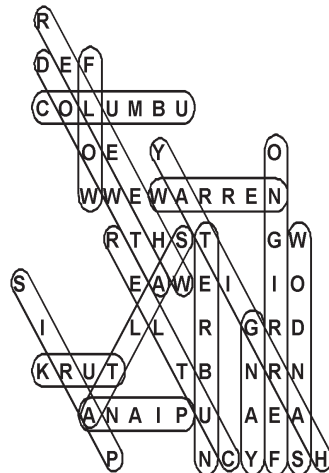
### Puzzles4Kids

Answer

What do you get if you cross a mouse and a squid?

An eek-topus.

### BODYBUILDERS



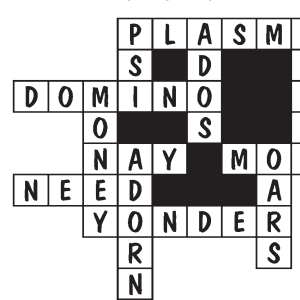
### Letter Box

Solution

R	T	O	M	A	N	K	G	E
E	M	A	G	K	T	R	O	N
K	G	N	R	E	O	A	T	M
G	R	E	A	T	M	O	N	K
O	N	K	E	R	G	T	M	A
M	A	T	N	O	K	E	R	G
T	E	G	K	N	R	M	A	O
N	K	R	O	M	A	G	E	T
A	O	M	T	G	E	N	K	R

### FEAR & KNIGHT

answer



### Even Exchange

- answers
- Castle, Cattle
  - Swing, Sting
  - Bonnet, Sonnet
  - Rhine, Rhone
  - Saute, Sauce
  - Lodger, Ledger
  - Pinch, Pitch
  - Waist, Wrist
  - Tater, Tamer
  - Andrea, Andrew

### King Crossword

Answers

Solution time: 21 mins.



### Weekly SUDOKU

Answer

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



**Pink ladies slipper** is a wildflower related to the orchid family. To reproduce, its seeds (which have no food supply of their own) must interact with a fungus in the soil, which breaks them open and passes on nutrients (the fungus later receives food from the mature plant). This plant flowers in early summer, ranging from magenta to almost white. Its root was once commonly prepared and given for a range of maladies.

—Brenda Weaver

Source: www.fs.fed.us/wildflowers

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### Happy Hummers

A simple sugar solution is 4 parts water to 1 part pure white sugar. Boil. Let cool. Pour into a red hummingbird feeder. No red dye is needed. To keep wasps and bees off your feeder, remove any yellow parts, since bees and wasps love the color yellow.

E-mail: birdingbits@cfl.rr.com

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## Stickeler's Answer

## Stickelers Answer

The word is "topographically."

### Stickeler's Puzzle on Page 4

## Puzzle Answers

### BIBLE WORD SEARCH

Answers

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

### Bible Word Search on Page 4

with a crumbly mummy?  
crackers in bed, will I end up  
If a pharaoh snacks on lots of  
answer  
**CryptoQuip**  
— Rogers Hornsby  
Window and wait for spring.  
what I do, I stare out the  
baseball. I'll tell you  
in winter when there's no  
People ask me what I do  
answer  
**CryptoQuote**

### Drawing cancelled

## Estill County Lions Club

The 2020 Mountain Mushroom Festival Lions \$500 Walmart card drawing had to be canceled due to COVID 19.

If you had already purchased a ticket, your ticket will be included in the drawing at the end of the 2021 Mushroom Festival.

If you have further questions, call 723-4023 and leave a message. Your call will be returned. Thank you. ECLC

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87 Wildwood Place (off Court St.)  
Irvine, Kentucky  
(606) 723-3213

Bible Trivia Answers  
ANSWERS 1 New; 2 Amor-  
ites; 3 Noah; 4 5; 5 Shushan;  
6 Eliab  
"Test Your Bible Knowledge," with 1,206 multiple-choice questions  
by columnist Wilson Casey, is available in bookstores and online.