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Black Rot of Grapes

Black rot is a common disease of grapes in Kentucky. Due to the prevalence of this disease, it is also one of the most economically important diseases of grapes. Black rot can affect all young, developing, above ground plant tissues. However, fruit infections are the most destructive. Without adequate disease management, both home

and commercial vineyards may suffer significant yield losses. Leaf symptoms first appear as small, round, reddish-brown spots that enlarge to 1/8 to 1/4 inch diameter and spots may coalesce into larger blotches. Enlarged spots develop dark margins with light brown to tan centers that may contain small, black spore-bearing fungal fruiting structures (pycnidia).

Fruit symptoms begin as soft, light brown spots that enlarge to envelop entire berries. Infected fruit then shrivel into black, wrinkled mummies. Symptoms on shoots, petioles, and tendrils appear as irregular or diamond-shaped, sunken, tan to brown lesions. Black fungal fruit-

ing structures may be observed in lesions. Disease is favored by warm, moist periods. Infection may occur throughout the growing season; however, as plants mature, disease susceptibility decreases. The pathogen survives winter in mummies, fallen leaves, and stem lesions.

Management this disease involves 1) selecting cultivars with reduced susceptibility to black rot; 2) plant in good sites with appropriate air circulation and leaf drying characteristics; 3) avoid planting in low lying, poorly drained sites; 4) train vines onto high trellises to promote air circulation and allow for better fungicide penetration; 5) remove weeds and basal sprouts for in-

creased air movement, 6) utilize disease prediction models to evaluate risk for infection [University of Kentucky provides an online "Black Rot of Grape Disease Prediction Model"]; 7) remove and destroy all diseased plant tissues; and 8) fungicides may be applied preventatively beginning at bud break (after 1/2 inch new growth) and continue through berry maturity. Homeowners may use fungicides that contain the active ingredients mancozeb or myclobutanil (e.g. Immunox).

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Prepare for Hatching of Bagworms

Bagworm eggs hatch in late May and the tiny larvae crawled out from the end of the bag in search of food. By using silk and bits of plant material, they soon constructed a small bag around their hind part that looks like a tiny, upright ice cream cone. As the larvae continue to feed and grow, they enlarge the bag enabling them to withdraw into it when disturbed. Older larvae strip evergreens of their needles and consume whole leaves of susceptible deciduous species, leaving only the larger veins. The bag is ornamented with bits of whatever type of vegetation they are feeding upon.

If only a few small trees or shrubs are infested, picking the bags off by hand and disposing of them may afford satisfactory control. This approach is most effective

during fall, winter or early spring before the eggs have hatched. When many small bagworms are infesting evergreens, an insecticide may be needed to prevent serious damage. The best time to apply an insecticide is while the larvae are still small (less than 1/2-inch long). Small larvae are more vulnerable to insecticides, and inflict less damage. Carefully inspect susceptible landscape plants, especially evergreens, for last year's bags. Young bagworms are harder to see; look closely for the small, upright bags which have the appearance of tiny ice cream cones constructed of bits of plant material. Preventive treatment is often justified on plants that were heavily infested with bagworms the previous year. June is the best time to treat for bagworms.



Several products are available for homeowner and professional use. For homeowners, conventional insecticides such as Sevin, Bonide Eight, Bayer Multi-Insect Killer, Ortho Max Lawn and Garden Insect Killer, or the microbial insecticide Bacillus thuringiensis (BT) provide satisfactory results. The BT products have very low mammalian toxicities, but are only effective against younger larvae.

If large bagworms are present (more than about 3/4-inch long), a conventional insecticide probably will provide better results. Foliage should be thoroughly wetted with the insecticide spray in order to achieve thorough coverage. Trade names are used as examples and no endorsement is intended, nor criticism implied of similar products not named. Always read and follow directions on the label.



The Garden Bug

Recycling food containers

Instead of throwing out all your used food containers, clean and re-purpose them for your garden. Plastic tubs can hold cuttings or young plants. Plastic lids can protect surface damage by clay pots. Glass jars can hold candles, seed pods or flowers in water. Egg trays can be seed starters. Cardboard can be used to block weed growth in flower beds. Make a funky garden art/birdhouse/collectables display by nailing cans to a board, using buttons, beads, rocks or shells to decorate it.

- B. Weaver

Birding BITS

BY Cindy Brook

Playful Ravens
Longtime Birding Bits fan Dave S. from Orlando, Fla., sent me a link about the playful behavior of the common raven. Did you know that juvenile ravens like to slide down snowbanks just for fun? I sure didn't. To read more, visit http://en.wikipedia.org/wiki/Common_Raven#Playful_behavior. Thanks Dave!

E-mail: birdingbits@cfl.rr.com
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Stickeler's Puzzle

STICKELERS by Terry Stickels

Below are four squeezer puzzles. Can you find the correct word to be placed in the middle of each to create two new words, one front-end, one back-end? Here's an example of how it works:

ever GREEN horn

- 1) general _____ wright
- 2) stand _____ line
- 3) super _____ house
- 4) inner _____ board

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Stickeler's Answer on Page 11

Wishing Well®

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

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 D

ORO AROM RB MZZQFD BQD

DQ WRXJM ZQFMJD ZLFMJ.

UM WGRLAMO LD'J BQD BLWM

DQ ZXMG AQDUMF BRDXFM.

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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.

JKCX SHRA ORKHVW ZA CVW

JKCX SHRA ORYINR ZA CNR

XHVE BCXXRNA PIBUCNRW XI

JKCX SHRA JHXKHV ZA.

— AIZNPR IOAPZNR

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Puzzle Answers

May 22, 2019

Puzzles4Kids

Answer

FEAR KN&T

answer

What did the chewing gum say to the shoe?
I am stuck on you.

W E B S
E R E B U S
S A S E
B I T I S T Y
N I W
S B Y L A W
E U Y
T I S S U E
Y D

Letter Box

Solution

E	T	L	Y	I	O	A	D	F
F	I	O	D	L	A	Y	T	E
Y	D	A	F	E	T	I	O	L
I	A	T	O	D	E	L	F	Y
D	Y	E	L	A	F	O	I	T
L	O	F	T	Y	I	D	E	A
O	F	I	A	T	Y	E	L	D
T	L	Y	E	O	D	F	A	I
A	E	D	I	F	L	T	Y	O

Even Exchange

answers

1. Barber, Barter
2. Fault, Vault
3. Retain, Retail
4. Stare, Scare
5. Olive, Alive
6. Notion, Motion
7. Sheer, Sheen
8. Beatty, Beauty
9. Encage, Enrage
10. Chuck, Cluck

BIRD ANATOMY

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

Weekly SUDOKU

Answer

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

CryptoQuip

answer

Dad made an effort not to cause forest fires. He claimed it's not nice to fuel Mother Nature.

King Crossword

Answers

Solution time: 24 mins.

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

Bible Trivia Answers

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

ANSWER: (1 New; 2) Esaias; (3) Ezekiel; (4) Brimstone (Gen 19:24); (5) Rachel; (6) Samson