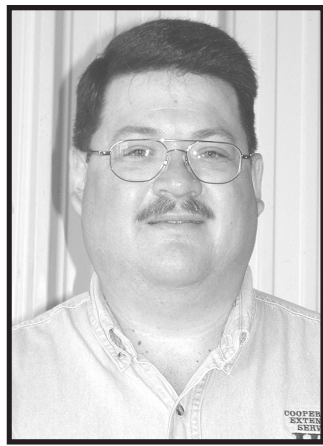


Pond turnover could be why the fish in your pond are dying



Eric Baker
Estill County Extension
Agent for Agriculture
& Natural Resources

Each summer through the early fall, we get questions from landowners searching for reasons why fish are dying in their ponds. Pond turnover is often the answer.

During the summer months, water can become stagnant and stratify, which means it separates into distinct layers

of cool and warm water. This occurs because the sun only penetrates the water closest to the surface. Since the sun is unable to penetrate to the water at deeper depths, that water stays cooler. These waters will start to mix when cooler air temperatures begin to arrive and cool the surface water. Heavy rains or strong winds can mix pond water too. This mixing process is called pond turnover.

When the water from the lower depths of the pond reaches the surface, it may not be as oxygenated as the previous surface water. This is because water in the bottom of the pond may have a higher organic matter content and fewer oxygen producing plants. Fish need dissolved oxygen to live. This water may also contain gases,

such as hydrogen sulfide, which are toxic to fish. When turnover occurs, it can cause an algal bloom die-off, a fish kill due to low dissolved oxygen or both.

Turnover usually only occurs during the warmer months of the year. Late fall, winter and early spring typically have lower surface water temperatures, and wind and rain help pond waters stay well mixed and maintain a more uniform temperature.

People will build commercial fish production ponds at shallower depths to prevent pond turnover. For existing ponds, the only way to prevent turnover is to install a system that mechanically aerates or mixes the pond and circulates the water from spring through fall. However, these systems are often expensive.

If you have dead fish in your pond, you can allow the fish to decompose in the water. You can also remove and discard the fish, but they may smell far more pungent on land than in the water.

More information on pond management is available at the Estill County office of the UK Cooperative Extension Service (606-723-4557) or by contacting the Division of Aquaculture at Kentucky State University (502-597-6581). You can also access aquaculture fact sheets from the Southern Regional Aquaculture Center webpage (<https://srac.tamu.edu/>).

Educational programs of the Cooperative Extension Service serve all people regardless of economic or social status and will not discriminate on the basis of race, color, ethnic origin, national origin, creed, religion, political belief, sex, sexual orientation, gender identity, gender expressions, pregnancy, marital status, genetic information, age, veteran status, or physical or mental disability.

UK to host virtual Corn & Soybean Field Day

UK College of Agriculture, Food and Environment is hosting a virtual Corn and Soybean Field Day to help producers get the research-based information and continuing education they need in the midst of the COVID-19 pandemic.

"These virtual field days help us fulfill our commitment of getting applied research and principles into the hands of growers and crop consultants," said Chad Lee, director of the UK Grain and Forage Center of Excellence.

The two-day event will occur July 21 and July 28. It will go from 9 a.m. until 11 a.m. EDT both days. Lee and Carrie Knott, UK grain crops specialist, will moderate the event.

The first day will feature topics related to crop and soil management, while the second day is devoted to integrated pest management. July 21 topics include de-

layed planting impacts and tools for producers, understanding and addressing spatial variability in corn yield, and soil sampling for precision nutrient management. Topics on July 28 include managing soybean cyst nematode populations, weed control in 2020 and pre-harvest chores that help with post-harvest management.

Preregistration is required for both days, and individuals need to register for each day separately. Register online at <https://bit.ly/3dQISIF> by July 20 for the July 21 session. Register at <https://bit.ly/3gmtz7> by July 27 for the July 28 portion of the field day.

Attendees can receive continuing education units for Certified Crop Advisers and pesticide applicators. The field day presentations will be recorded, so individuals who cannot attend the live events can view the videos later.

They will also have the option to take a quiz based on the video. If they are Certified Crop Advisers or pesticide applicators, a passing score can earn them continuing education credits. "We realize it may be harder this year for producers to get these credits due to the pandemic, so we wanted to make this option available to them to help them get the hours they need," Knott said.

Producers can contact Colette Laurent, UK grain crops coordinator, at claurent@uky.edu if they have questions about the field day. A full event schedule is available online at <https://www.kygrains.info/> or by contacting local office of the UK Cooperative Extension Service. More details about obtaining credits after the events will be available on the same website after July 28.

Wishing Well®

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

WSW NHY VLHE ZSQVON ZHYXO

MOCSHWSQKBBN THJ GOCN

BSTFJFOKWOW KLW EHYBW FKGO

WSXLON XMOBBX?

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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.

EFN NCAEF FCQ DOCYOU

ANTNSMNY EFN NPIACTNQ KV

EFN QLJ, CJY XN QFCOO QKKJ

QNN EFN ANQLOEQ KV EFNSA

OKMN. — QSEESJD ILOO

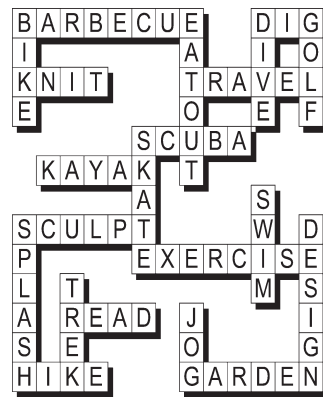
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Puzzle Answers

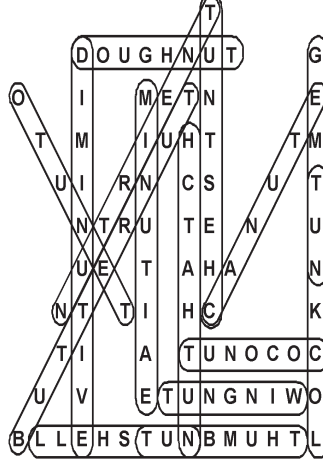
July 15, 2020

Puzzles4Kids

Answer



NUTTY WORDS



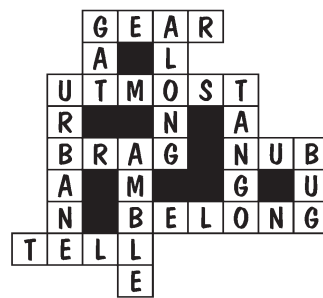
Letter Box

Solution

G	N	R	A	I	L	O	W	T
A	I	L	O	T	W	N	G	R
O	W	T	N	R	G	L	A	I
N	A	I	W	L	R	G	T	O
W	L	G	T	N	O	R	I	A
R	T	O	I	G	A	W	L	N
L	O	W	R	A	T	I	N	G
T	R	N	G	W	I	A	O	L
I	G	A	L	O	N	T	R	W

FEAR & KNOT

answer



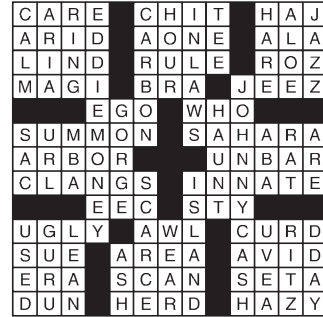
Even Exchange

- answers
- Poster, Pester
 - Tango, Tangy
 - Collar, Cellar
 - Roast, Roost
 - Sailor, Tailor
 - Quill, Quilt
 - Prize, Price
 - Branch, Bianch
 - Shore, Share
 - Reveal, Repeat

King Crossword

Answers

Solution time: 24 mins.



Weekly SUDOKU

Answer

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



The Garden Bug

Bridal bouquets

In ancient times, garlands or flowers symbolized the bride's fertility. In the Middle Ages, wedding bouquets were packed with pungent herbs; garlic, spices and dill were used to fend off evil spirits and bad luck that might plague the bride and the guests.

The tradition of tossing the bouquet began from guests tearing pieces from the bride's dress for good luck; the bride would divert attention from this practice by throwing either the bouquet or the garter.

—Brenda Weaver

Source: www.roseandblossom.com

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Birding BITS BY Cindy Brook

Glorious Water

It's July, and it's hot. Birds aren't the only things that need water to drink. I have seen other creatures with wings, like bees and dragonflies, sipping water from birdbaths. So keep those birdbaths clean and filled with fresh water. It'll keep everyone happy and cool.

E-mail: birdingbits@cfl.rr.com

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Stickeler's Answer

Stickelers Answer

- 1) New Zealand, 2) 10 appendages — 8 arms and two tentacles, 3) Venus, 4) Istanbul

Stickeler's Puzzle on Page 7

Puzzle Answers

BIBLE WORD SEARCH

Answers



lightheaded and would have periodically got very Did you know Mickey Mouse answer

CryptoQuip

love. — Sitting Bull see the results of their received the embraces of The earth has gladly

CryptoQuote

Bible Word Search on Page 7

NEAL'S STEREO SHOP

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River Drive & Main in Ravenna

NEAL'S AUTO CENTER & BODY SHOP

Mechanical Work
Main Street in Ravenna
Call 606-975-3796

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) New; 2) Sea of Galilee; 3) John 10:35; 4) Fish; 5) Reuben; 6) Sycamore