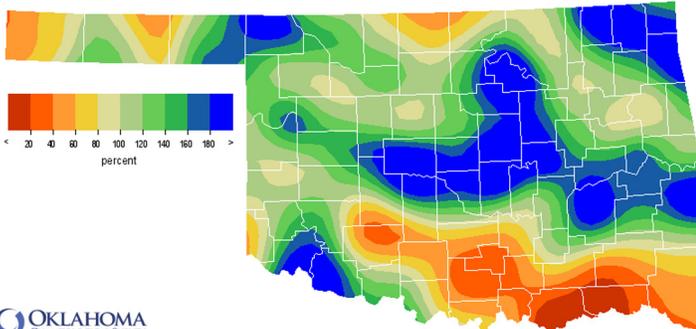


July 28, 2016

## PRECIPITATION

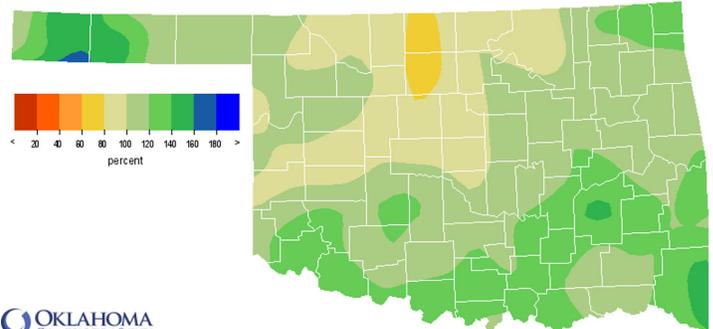
### Statewide Precipitation

Climate Division	Last 30 Days June 28, 2016 – July 27, 2016				Last 365 Days July 29, 2015 – July 27, 2016			
	Total Rainfall (inches)	Departure From Normal (inches)	Percent of Normal	Rank Since 1921	Total Rainfall (inches)	Departure From Normal (inches)	Percent of Normal	RANK SINCE 1921
PANHANDLE	2.76"	+0.28"	111%	34th wettest	23.84"	+3.35"	116%	17th wettest
N. CENTRAL	3.01"	+0.10"	103%	40th wettest	28.87"	-2.47"	92%	47th driest
NORTHEAST	5.08"	+1.62"	147%	19th wettest	46.25"	+3.68"	109%	25th wettest
W. CENTRAL	2.76"	+0.60"	128%	26th wettest	28.89"	+0.56"	102%	28th wettest
CENTRAL	4.87"	+1.97"	168%	14th wettest	38.94"	+1.39"	104%	24th wettest
E. CENTRAL	4.47"	+1.23"	138%	19th wettest	54.61"	+8.57"	119%	10th wettest
SOUTHWEST	2.91"	+0.50"	121%	26th wettest	36.83"	+6.62"	122%	11th wettest
S. CENTRAL	1.74"	-1.08"	62%	32nd driest	49.54"	+8.91"	122%	12th wettest
SOUTHEAST	2.79"	-0.84"	77%	44th driest	63.95"	+13.46"	127%	6th wettest
STATEWIDE	3.45"	+0.55"	119%	26th wettest	41.03"	+4.64"	113%	17th wettest



OKLAHOMA CLIMATOLOGICAL SURVEY  
Percentage of 1981-2010 Normal Rainfall  
Last 30 Days

Jun 28, 2016 through Jul 27, 2016  
Created 2016-07-28 10:51:46 UTC. Copyright © 2016

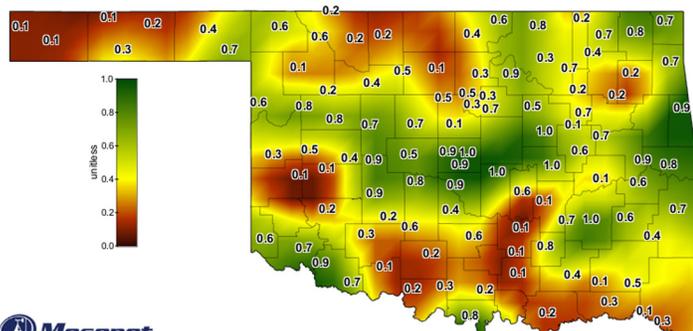


OKLAHOMA CLIMATOLOGICAL SURVEY  
Percentage of 1981-2010 Normal Rainfall  
Last 365 Days

Jul 29, 2015 through Jul 27, 2016  
Created 2016-07-28 10:03:21 UTC. Copyright © 2016

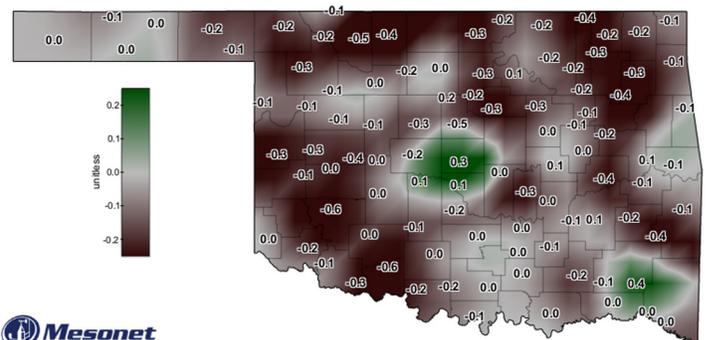
## SOIL MOISTURE

### Fractional Water Index July 27, 2016



Mesonet  
1-day Average 10-inch Fractional Water Index  
July 27, 2016

Created 7:30:14 AM July 28, 2016 CD1 © Copyright 2016



Mesonet  
7-day 10-inch Fractional Water Index Change  
July 27, 2016

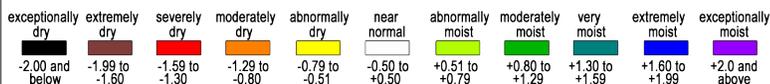
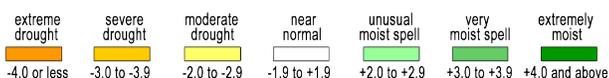
Created 6:30:01 AM July 28, 2016 CD1 © Copyright 2016

The Fractional Water Index ranges from very dry soil having a value of 0 to soil at field capacity illustrated by a value of 1. [1.0-0.8 = Enhanced Growth; 0.8-0.5 = Limited Growth; 0.5-0.3 = Plants Wilting; 0.3-0.1 = Plants Dying; <0.1 = Barren Soil.]

# DROUGHT INDICES

Palmer Drought Severity Index (PDSI)	Standardized Precipitation Index (SPI) Through June 2016
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Climate Division	Status 7/23/16	Value		Change in Value	3-month	12-month	24-month
NORTHWEST	Near Normal	2.01	1.93	0.08	Moderately Moist	Very Moist	Exceptionally Moist
NORTH CENTRAL	Near Normal	0.5	-0.04	0.54	Near Normal	Near Normal	Abnormally Moist
NORTHEAST	Near Normal	-0.24	-0.69	0.45	Near Normal	Abnormally Moist	Abnormally Moist
WEST CENTRAL	Near Normal	0.51	-0.15	0.66	Near Normal	Abnormally Moist	Very Moist
CENTRAL	Near Normal	0.46	-0.4	0.86	Near Normal	Moderately Moist	Extremely Moist
EAST CENTRAL	Near Normal	1.81	0.6	1.21	Near Normal	Very Moist	Exceptionally Moist
SOUTHWEST	Very Moist Spell	3.48	3.12	0.36	Very Moist	Moderately Moist	Exceptionally Moist
SOUTH CENTRAL	Near Normal	4.04	1.57	2.47	Moderately moist	Extremely Moist	Exceptionally Moist
SOUTHEAST	Near Normal	1.83	-0.07	1.9	Near Normal	Extremely Moist	Exceptionally Moist



The PDSI is based upon precipitation, temperature, and soil moisture, and is considered most effective for unirrigated cropland. According to the latest PDSI, all climate regions in the state are classified as Near Normal except the Southwest, which is classified as experiencing a Very Moist Spell.

The SPI provides a comparison of precipitation over several specified periods with totals from the same periods for all years included in the historical record. All climate divisions had Near Normal precipitation or wetter for the 3 time periods shown. Conditions were Exceptionally Moist for the 24-month period for the Northwest, East Central, Southwest, South Central, and Southeast regions.

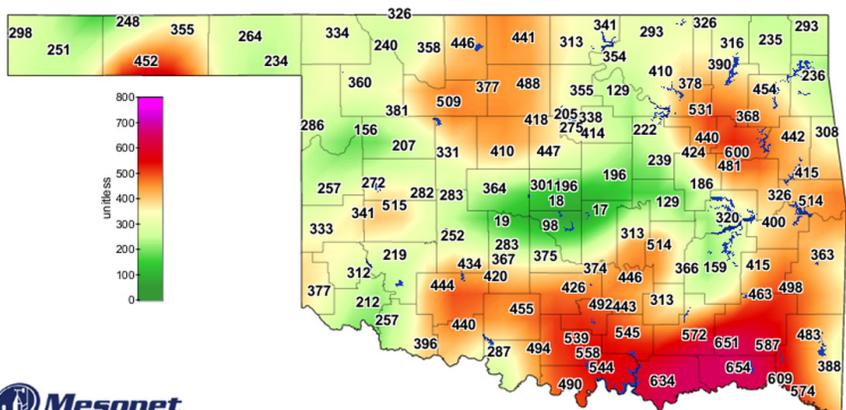
## Keetch-Byram Drought Fire Index

Five stations are currently above 600 (July 28).

MESONET STATION	CLIMATE DIVISION	CURRENT VALUE
Hugo	Southeast	654
Antlers	Southeast	651
Durant	South Central	634
Valliant	Southeast	609
Porter	Northeast	600

No stations were above 600 on June 28.

The Keetch-Byram Drought Index measures the state of near-surface soil moisture (within the uppermost eight inches of soil) as well as the amount of fuel available for fires. KBDI values of 600 and above are often associated with more severe drought and increased wildfire occurrence.



**Mesonet**  
 Keetch-Byram Drought Index

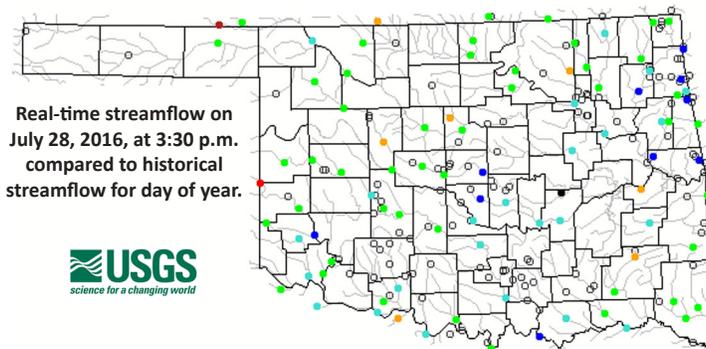
3:00 PM July 28, 2016 CDT  
Created 3:44:04 PM July 28, 2016 CDT. © Copyright 2016

## STREAMFLOW CONDITIONS

July 28, 2016

Explanation - Percentile classes							
●	●	●	●	●	●	●	○
<b>Low</b>	<10 <small>Much below normal</small>	10-24 <small>Below normal</small>	25-75 <small>Normal</small>	76-90 <small>Above normal</small>	>90 <small>Much above normal</small>	<b>High</b>	Not ranked

Visit [waterwatch.usgs.gov](http://waterwatch.usgs.gov) for real-time streamflow information.

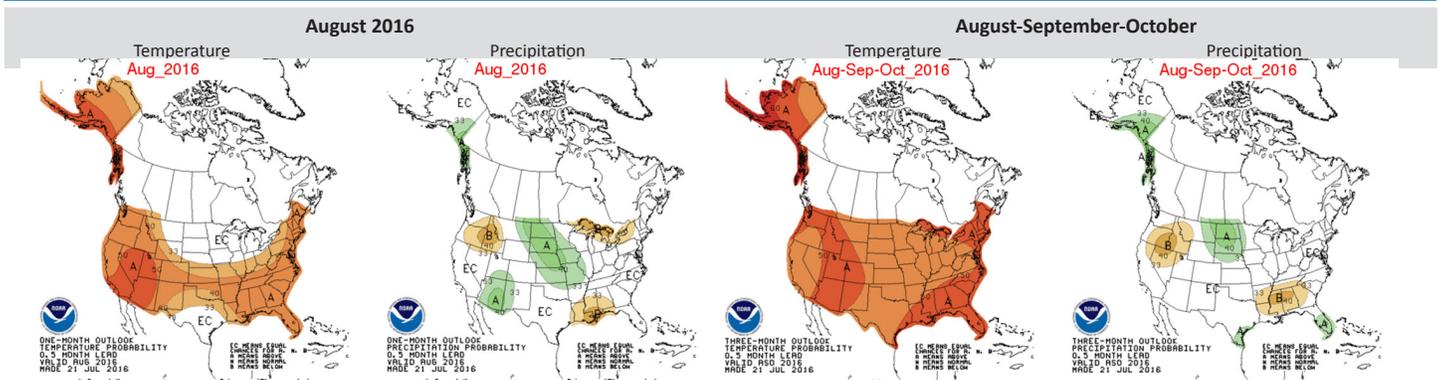


Real-time streamflow on July 28, 2016, at 3:30 p.m. compared to historical streamflow for day of year.



# WEATHER/DROUGHT FORECAST

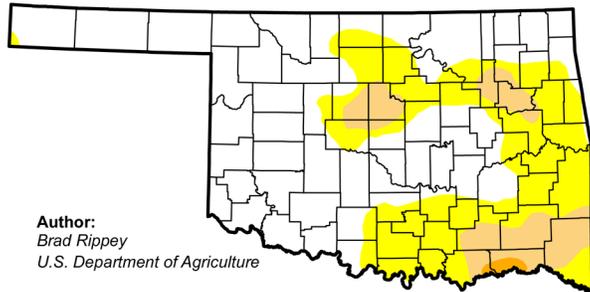
## Seasonal Outlook



The contours on the maps show the total probability of three categories—above, indicated by the letter “A”; below, indicated by the letter “B”; and the middle category, indicated by the letter “N”. “EC” stands for “Equal Chances” for A, N, or B

## Drought Summary & Outlook

### U.S. Drought Monitor Oklahoma



**July 26, 2016**  
(Released Thursday, Jul. 28, 2016)

Valid 8 a.m. EDT

Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	61.25	38.75	10.00	0.53	0.00	0.00
Last Week 7/19/2016	65.26	34.74	7.54	0.00	0.00	0.00
3 Months Ago 4/26/2016	56.23	43.77	10.30	1.65	0.00	0.00
Start of Calendar Year 12/29/2015	100.00	0.00	0.00	0.00	0.00	0.00
Start of Water Year 9/29/2015	52.60	47.40	16.79	6.37	0.97	0.00
One Year Ago 7/28/2015	100.00	0.00	0.00	0.00	0.00	0.00

**Intensity:**



According to the U.S. Drought Monitor, the number of Oklahomans affected by drought has risen to 733,523 in the past month, with 10% of the state (in area) now in Moderate Drought (D1), and 0.53% of the state in Severe Drought (D2)—this includes the southeast corner of Bryan county and southern Choctaw county.

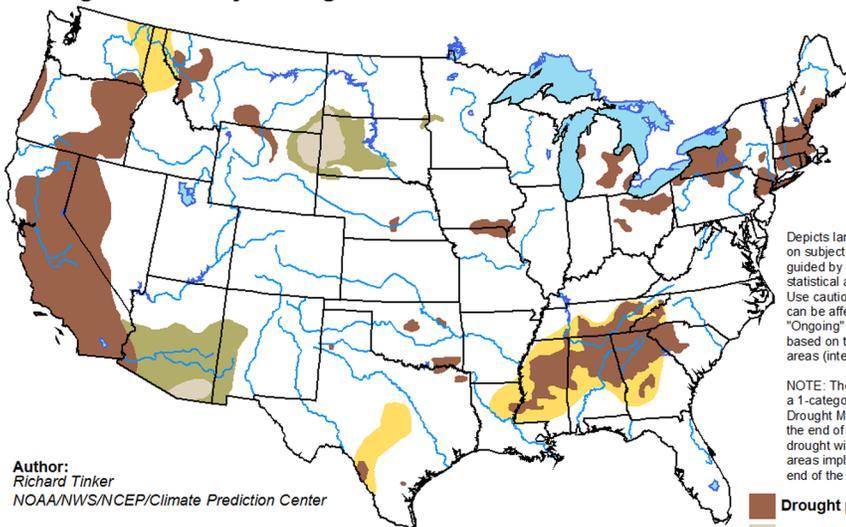
Rainfall totals varied widely across the state in the past month. While the Central region received 168% of normal precipitation, the South Central region only received 62%, and the Southeast region, 77%. Statewide, the past 365-day period has been ranked as 17th wettest on record with an average 113% of normal rainfall.

According to the seasonal drought outlook, from mid July through the end of October, drought conditions are likely to persist in a few small isolated areas of Oklahoma in the Central, Northeast and Southeast climate regions.

Drought is likely to persist in almost all of California, extending through eastern Oregon and western Nevada. There are also large areas of the southeastern and New England states, along with other isolated pockets across the nation, where drought is likely to develop or persist.

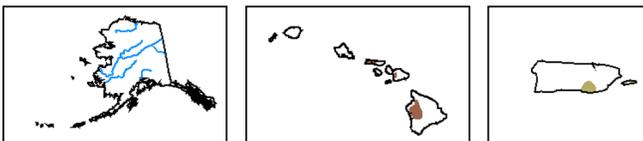
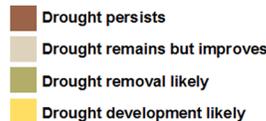
### U.S. Seasonal Drought Outlook Drought Tendency During the Valid Period

Valid for July 21 - October 31, 2016  
Released July 21, 2016



Depicts large-scale trends based on subjectively derived probabilities guided by short- and long-range statistical and dynamical forecasts. Use caution for applications that can be affected by short lived events. “Ongoing” drought areas are based on the U.S. Drought Monitor areas (intensities of D1 to D4).

NOTE: The tan areas imply at least a 1-category improvement in the Drought Monitor intensity levels by the end of the period, although drought will remain. The green areas imply drought removal by the end of the period (D0 or none).

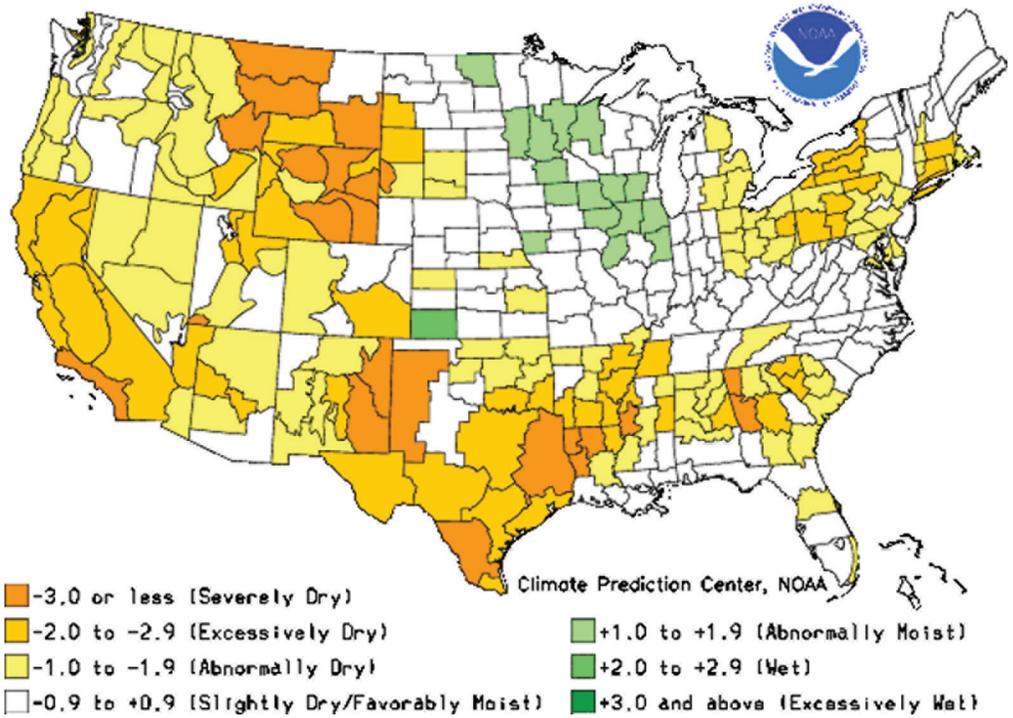


# CROP MOISTURE INDEX

According to the NOAA Crop Moisture Index by Division, for the period ending July 23, the Panhandle and Southwest regions remain Slightly Dry/Favorably Moist (-0.9 to +0.9). The South Central and Southeast regions are Excessively Dry (-2.0 to -2.9). The rest of the state is classified as Abnormally Dry (-1.0 to -1.9).

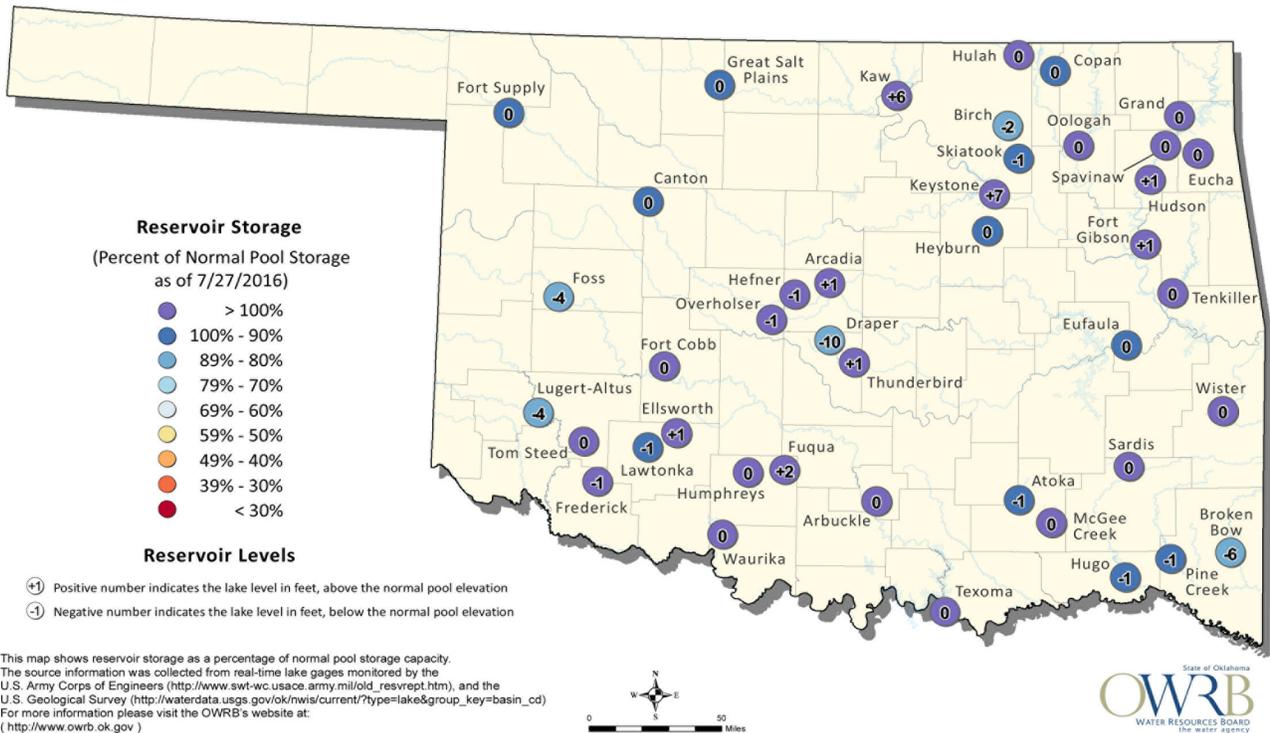
Derived from the Palmer Drought Severity Index (PDSI), the Crop Moisture Index reflects moisture supply in the short-term across major crop-producing regions. It identifies potential agricultural droughts. It is not intended to assess long-term droughts.

Crop Moisture Index by Division  
Weekly Value for Period Ending JUL 23, 2016  
Short Term Need vs. Available Water in a Shallow Soil Profile



# RESERVOIR STORAGE

## Oklahoma Surface Water Resources Reservoir Levels and Storage as of 7/27/2016



The Oklahoma Water Resources Bulletin is compiled and distributed monthly by the Oklahoma Water Resources Board utilizing products and information developed by the Oklahoma Climatological Survey, Oklahoma Mesonet, National Oceanic and Atmospheric Administration, National Drought Mitigation Center, US Geological Survey, US Army Corps of Engineers, and US Department of Agriculture. For questions or comments contact Darla Whitley.