State of 2022 Drought
Failed Acres and Crop Market Update

Prepared by Texas A&M AgriLife Extension Department of Agricultural Economics
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Crop Market Update

Widespread drought in Texas in 2022 impacted grain production in terms of both percent of area harvested and yields.

Wheat. Texas farmers planted 5.4 million acres of wheat for 2022, just above the 10-year average of 5.3 million. While the average acres harvested is about half of that planted, only 24 percent of planted acres were harvested in 2022, 1.3 million. The average yield of harvested acres in 2022 was 28 bushels compared to the 10-year average yield in Texas of 31.5 bushels per acre (89 percent of average). Total production in 2022 of 36.4 million bushels is about half the 10-year average of 75.6 million bushels.

Corn. Corn acres planted in 2022 of 2.150 million is just below the 10-year average of 2.320 million. The 1.780 million acres harvested is 83 percent of the planted total. Average area harvested in Texas corn is 86 percent. The statewide corn yield (104 bu) and total corn production (185 mil bu), as a percent of normal, are 79 and 71 percent. The average corn yield and total corn production in 2022 are the lowest since 2011 (93 bushels per acre and 137 million bushels).

Grain Sorghum. Texas sorghum acres in 2022 of 1.5 million are the lowest on record with USDA (data available since 1929). The 1.1 million acres harvested represents 73 percent of acres planted, the lowest since 2006. The statewide yield in 2022 of 54 bushels per acre is down nine percent from the 10-year average of 59.7 bushels per acre. Production in 2022 of 54 percent of average is due to the combined effect of fewer planted acres than normal and drought.

Drought Impacts on Texas Grain, 2022. Source USDA, NASS

	Wheat	Corn	Sorghum	All Cotton
Planted (000 acres)	5,400	2,150	1,500	7,933
Harvested (000 acres)	1,300	1,780	1,100	2,530
Yield (units per acre)	28.0 bu	104.0 bu	54.0 bu	616 lb
Production (000 units)	36,400 (bu)	185,120 (bu)	59,400 (bu)	3,245 (bales)
Production, % of average	48%	71%	54%	

Cotton. Texas all cotton (upland and pima combined) acres in 2022 reflected the influence of high prices and drought, both of which historically lead to higher plantings. All cotton abandonment in 2022 was a record 68%. The forecasted yield of Texas all cotton is 616 lbs per acre, which is 13% below the previous five year average. The resulting 2022 all cotton production in Texas is forecast at only 3,245,000 bales which is 53% below the previous five year average.

Drought Figures

Legend for U.S. Drought Monitor Figures

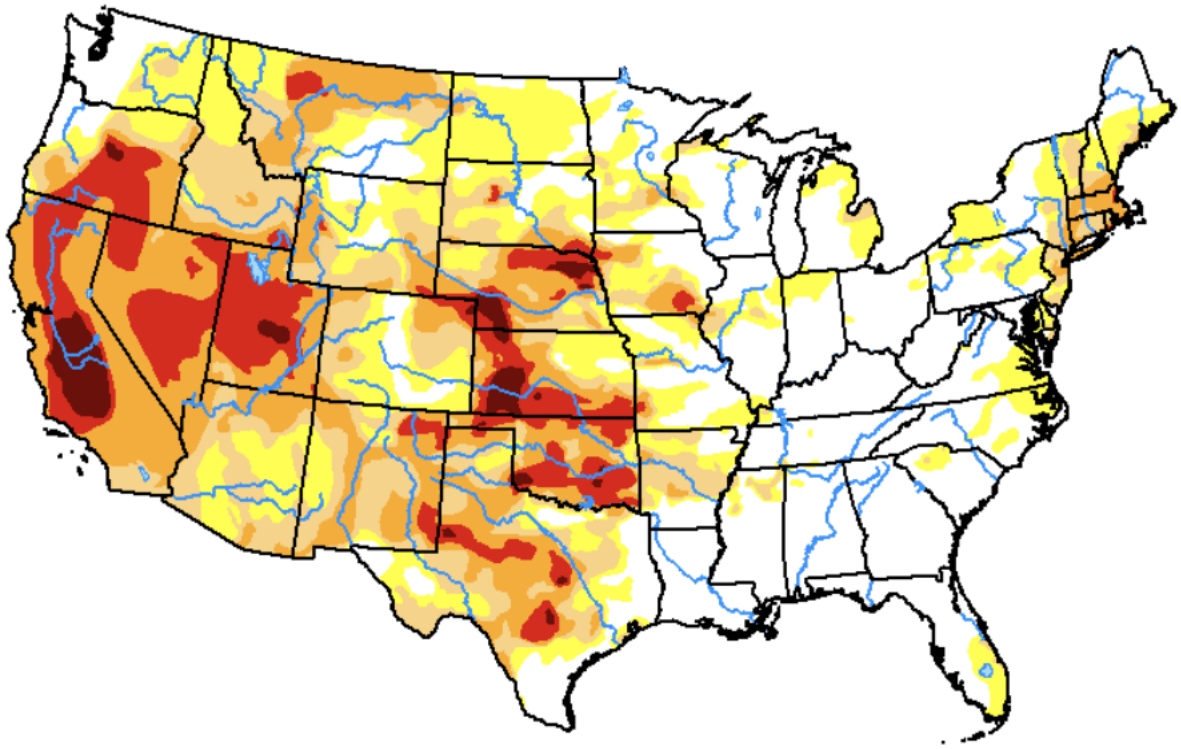
D0 (Abnormally Dry) D1 (Moderate Drought) D2 (Severe Drought)

D3 (Extreme Drought) D4 (Exceptional Drought)

United States:

U.S. Drought Monitor, Contiguous U.S. – September 13, 2022

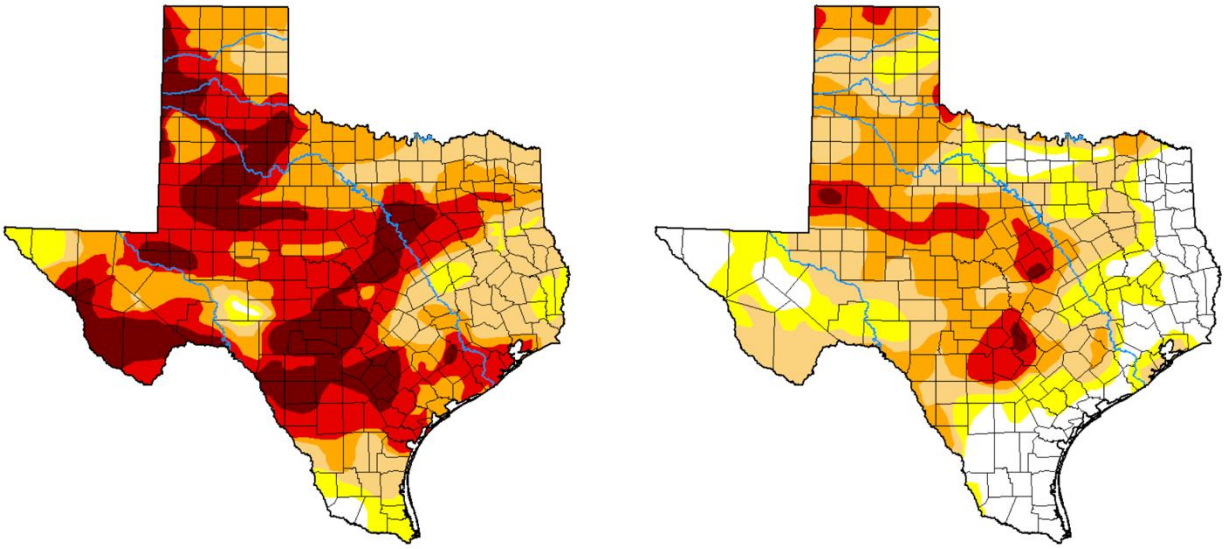
As of September 13, 2022, 66.24% of the Continental United States was in some stage of drought ranging from D0-D4. The most severe drought conditions, designated D4, covered 1.77% of the Continental United States. Drought conditions lifted slightly from the previous month, with the area in drought categories D3 and D4 falling. Overall, the drought severity coverage index for the Continental U.S., an experimental method for converting drought levels from the U.S. Drought Monitor map to a single value for an area, rose from 179 to 154 from July 2022 to September 2022.



Texas – July 2022 vs. September 2022

U.S. Drought Monitor, Texas – July 12, 2022 (Left) & September 13, 2022 (Right)

As of September 13, 2022, 78.4% of Texas was in some stage of drought ranging from D0-D4. The most severe drought conditions, designated D4, covered 0.62% of the state. Overall, the drought severity coverage index for Texas, an experimental method for converting drought levels from the U.S. Drought Monitor map to a single value for an area, fell from 342 to 179 from July 2022 to September 2022.

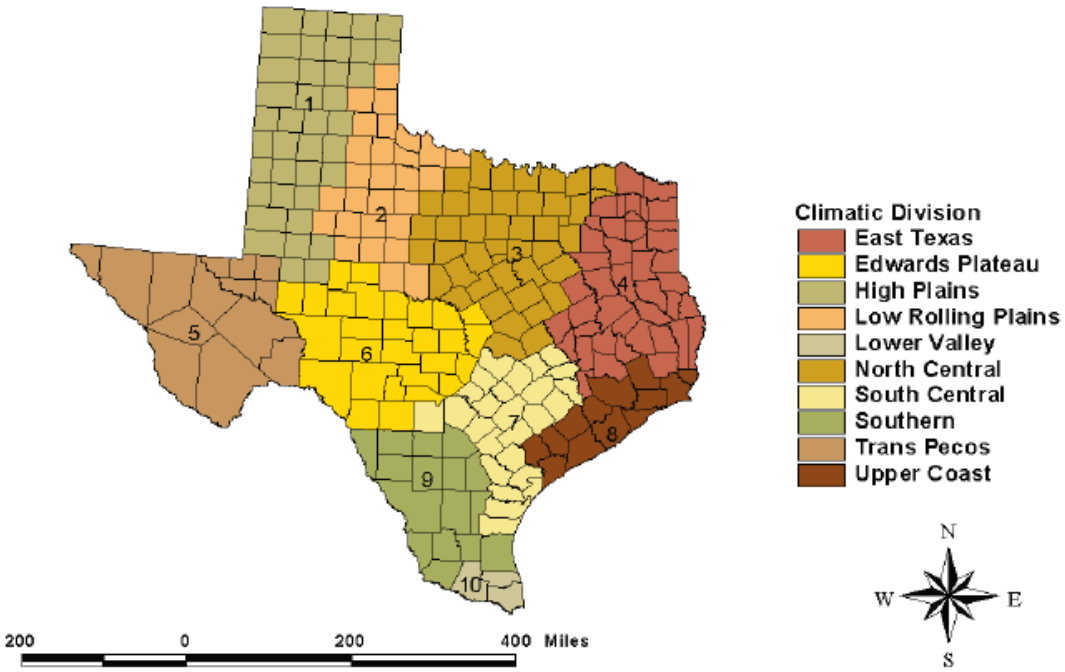


Geographic Area	Date	Percent of Area by Drought Severity					
		None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Texas	Jul. 12, 2022	0.76	99.24	93.82	75.7	51.8	21.32
	Sep. 13, 2022	21.62	78.38	59.4	31.92	8.34	0.62
	Change	20.86	-20.86	-34.42	-43.78	-43.46	-20.7

Texas Climate Divisions

U.S. Drought Monitor, Time Series of Climate Divisions – September 13, 2022

Climate divisions represent climatically homogenous regions. Texas is divided into 10 Climate Divisions represented in the following figure. For half of all Climate Divisions in the state, a majority of the landmass is in at least D1 drought. The South Central Division has the most area in D3-D4 by approximately 5%.



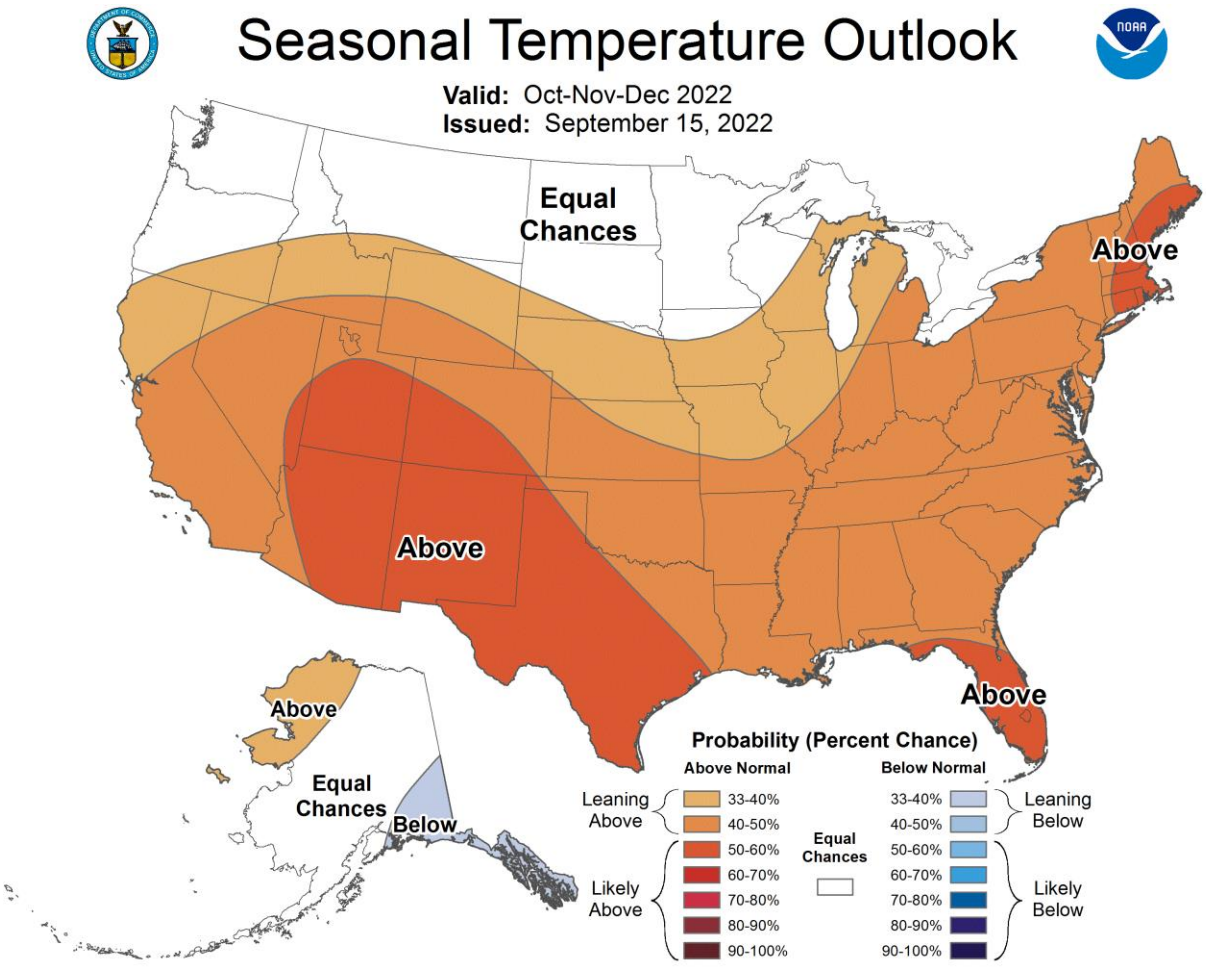
Geographic Area	Date	Percent of Area by Drought Severity					
		None	D0-D4	D1-D4	D2-D4	D3-D4	D4
East Texas	September 13, 2022	56.44	43.56	16.35	0.77	0.05	0.00
Edwards Plateau		0.00	100.00	91.90	60.17	9.28	0.31
High Plains		0.10	99.90	92.69	58.07	15.11	1.54
Low Rolling Plains		0.00	100.00	88.89	63.12	13.86	0.00
Lower Valley		100.00	0.00	0.00	0.00	0.00	0.00
North Central		9.34	90.66	68.22	38.78	12.53	1.06
South Central		18.60	81.40	61.52	35.80	20.61	2.48
Southern		57.36	42.64	25.13	10.09	1.16	0.00
Trans Pecos		24.09	75.91	41.50	0.09	0.00	0.00
Upper Coast		52.73	47.27	15.31	0.34	0.00	0.00

Seasonal Outlook Maps

NOAA NWS Climate Prediction Center, Monthly & Seasonal Color Outlook Maps – September 13, 2022

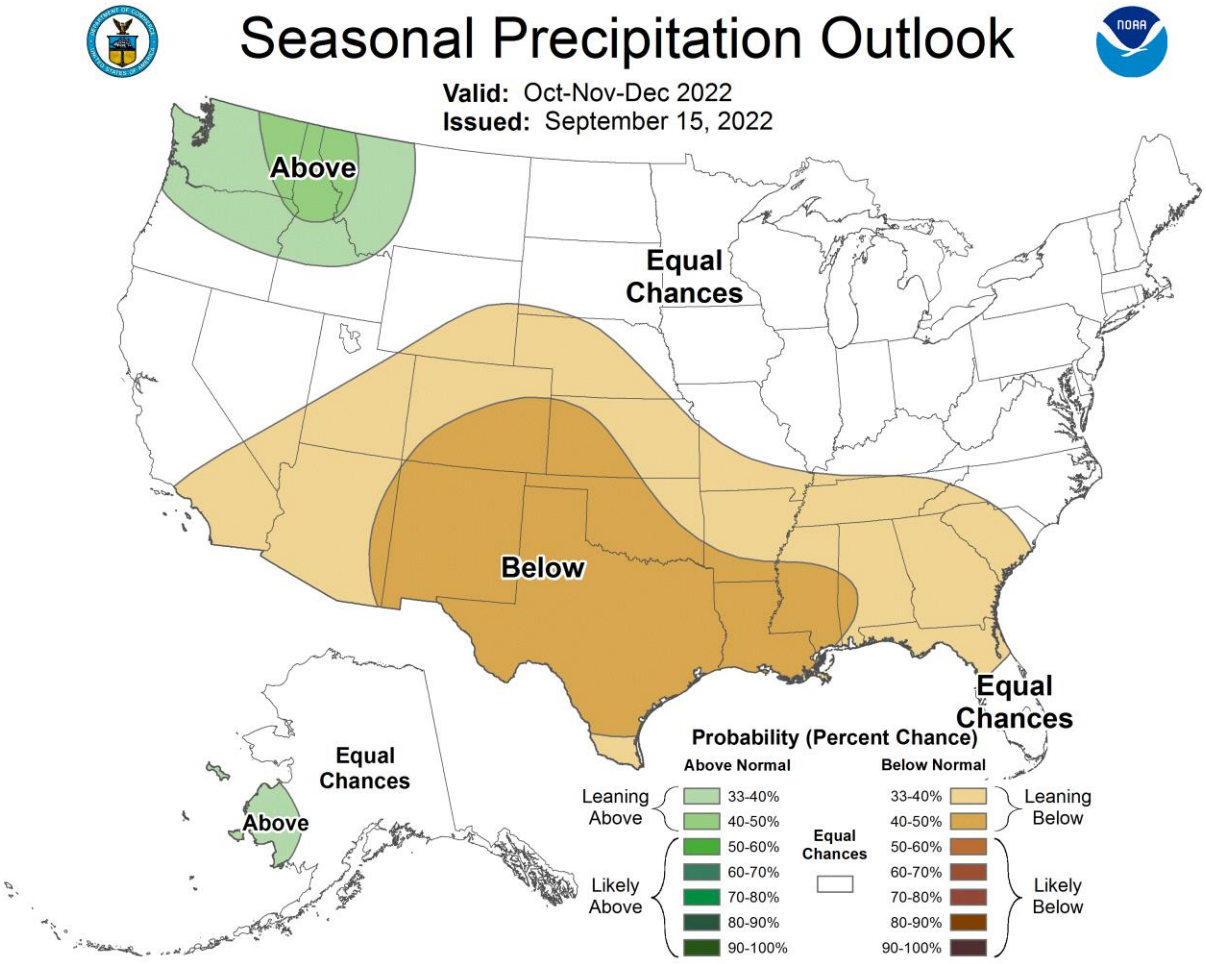
NOAA's seasonal color outlook maps represent probabilities of achieving average, below average, or above average temperature and precipitation for a given period of time. Note that the chance of different from average values does not necessarily represent the magnitude of those values, only that there is a chance of different from average conditions.

The outlook through December calls for 'likely above' average temperatures for roughly 75% of the continental United States. Temperatures in Texas are forecast as 'leaning above' to 'likely above' depending on the part of the state. Roughly two-thirds of Texas has a 50-60% chance of 'likely above' average temperatures for the October to December quarter.



The outlook through December calls for 'leaning below' average precipitation for approximately 50% of the continental United States. Precipitation in Texas is forecast as 'leaning below' average precipitation

values. All regions of Texas, save the Valley, have a 40-50% chance of 'likely below' average precipitation for the October to December quarter.



At this time the seasonal outlooks suggest a continuation of drought conditions through at least December. Seasonal outlook maps forecasting further into the future suggest sustained chances of above average temperatures through the majority of 2023, but show precipitation values returning to 'equal chances of above average and below average' during the winter months.