

Severe Drought in the Western Cape Reduces South Africa’s 2017/18 Wheat Output

South Africa’s Western Cape province experienced a severe drought during the 2017 wheat growing season, and wheat yields and output were reduced by more than 25 percent from the previous year’s crop. South Africa’s 2017 drought was most severe in the primary wheat growing areas in the Western Cape, where over 90 percent of national dryland wheat production is grown and approximately 50 percent of South Africa’s total wheat production occurs.

Winter wheat in Western Cape is planted in May and harvested in November, and monitoring rainfall from May through October helps to estimate potential wheat yields. Seasonal analysis from the CHIRPS (Climate Hazards Group Infrared Precipitation with Station data) rainfall data set indicated that the 2017 wheat growing season was the driest year during the past 37 years (Figures 1-3).

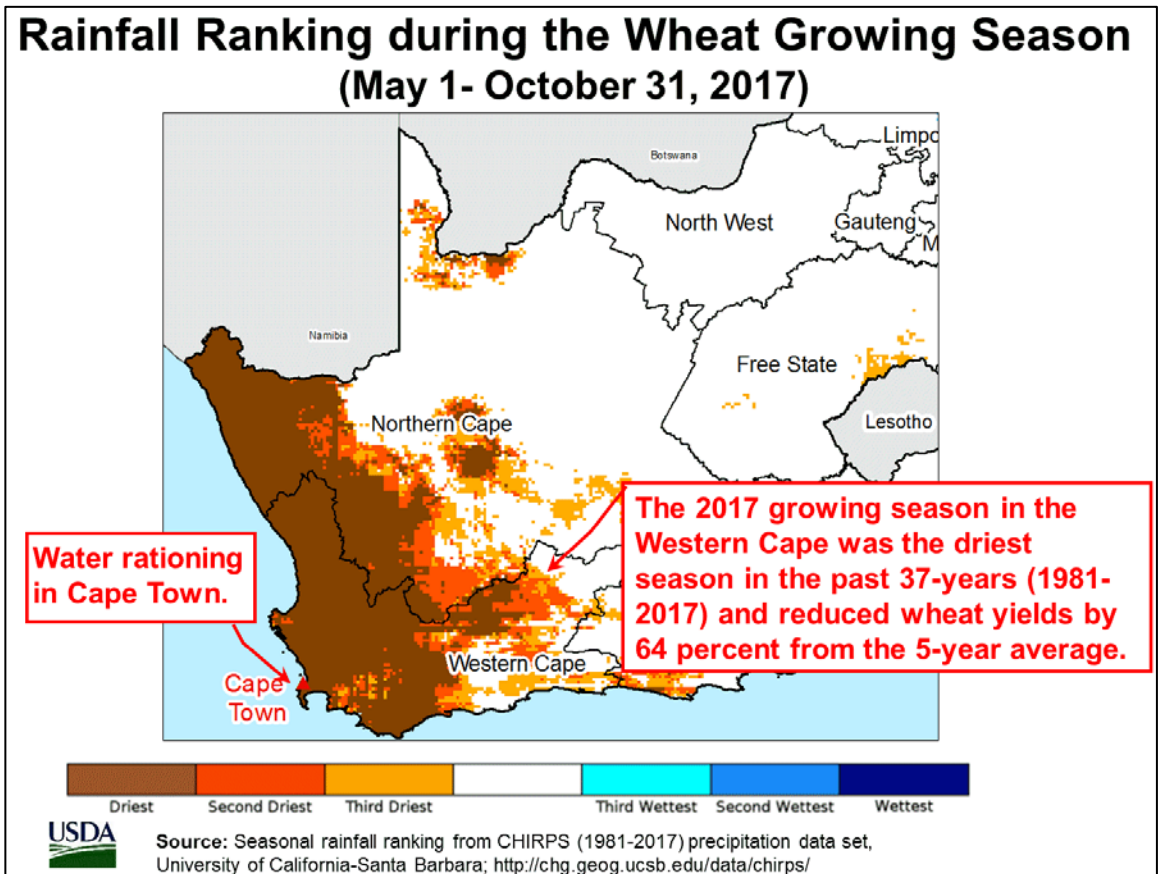
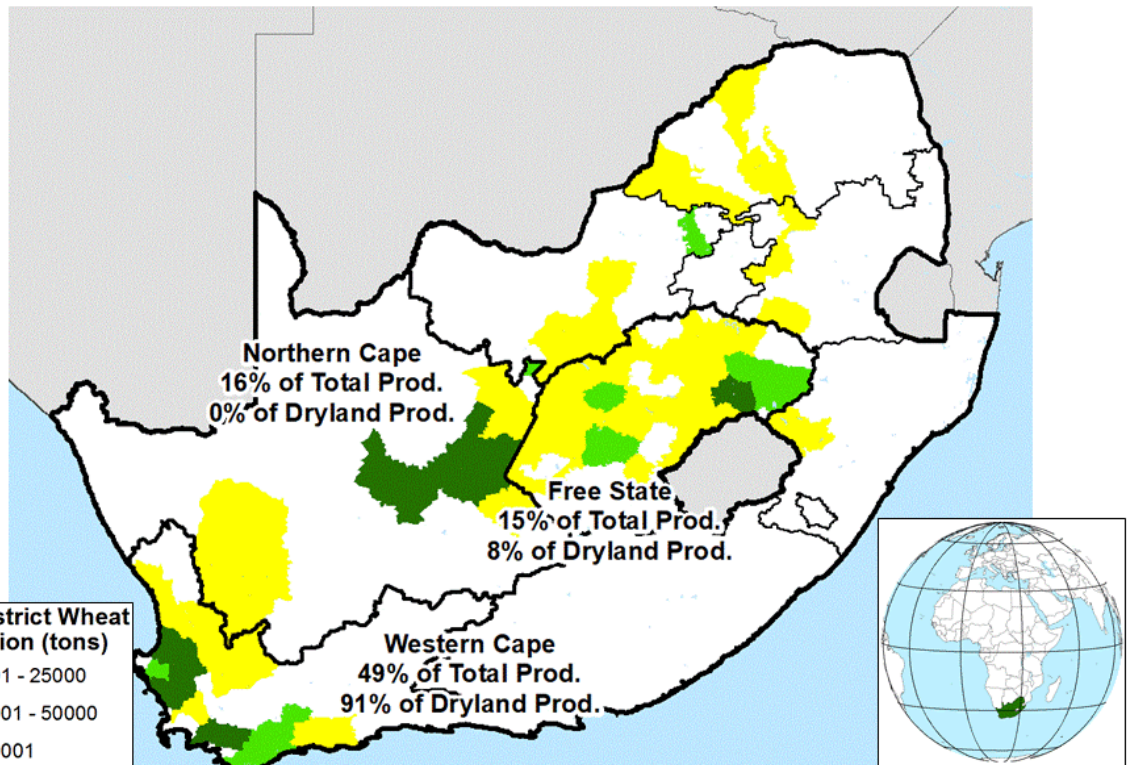


Figure 1. Western Cape’s seasonal rainfall was the driest since 1981.

The vast majority of South Africa's dryland wheat production is grown in the Western Cape. Monitoring crop conditions using Normalized Difference Vegetation Index (NDVI) data from Moderate Resolution Imaging Spectroradiometer (MODIS) satellite imagery helps estimate potential wheat yields. The 2017 vegetation conditions in the Western Cape as measured by NDVI were shown to be the lowest on record from May through August (Figure 4) and correspondingly South Africa's Crop Estimates Committee estimated that 2017 wheat yields in Western Cape will be 64 percent below the 5-year average, or approximately 1.8 tons per hectare (Figure 5).

In summary, South Africa's 2017/18 wheat production is estimated at 1.48 million metric tons, down 430,000 tons or 29 percent from last year's output of 1.9 million. Harvested area for 2017/18 is estimated at 490,000 hectares, down 18,000 hectares or 4 percent from last year. Yield is estimated at 3.02 tons per hectare, down 25 percent from last year and down 14 percent from the 5-year average.

South Africa Wheat Production (2013)



Data Sources:

- 1). Percentage value indicates percent province production of total and dryland production, Wheat production estimates from South Africa's Crop Estimates Committee (Dec. 20, 2013 report), Dept of Agriculture, Forestry & Fisheries.
- 2). District wheat production from 2007 Census of Commercial Agriculture, Statistics South Africa, 2011.

Figure 2. South Africa's Wheat Production (2013).

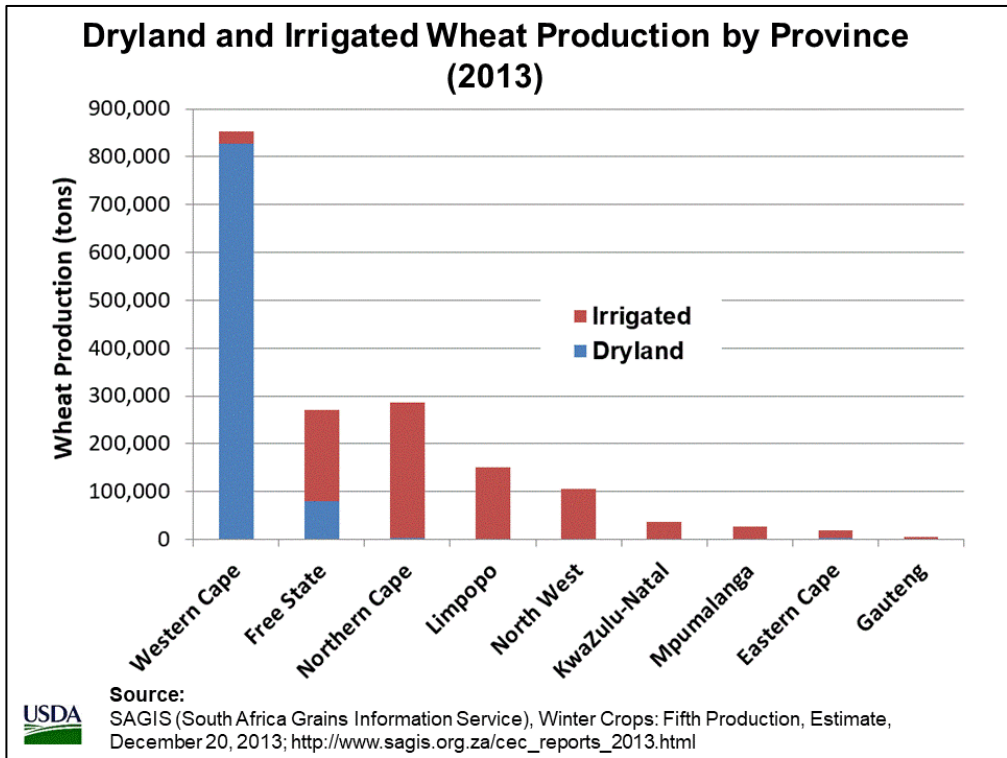


Figure 3. Over 90 percent of South Africa’s dryland wheat production is in the Western Cape.

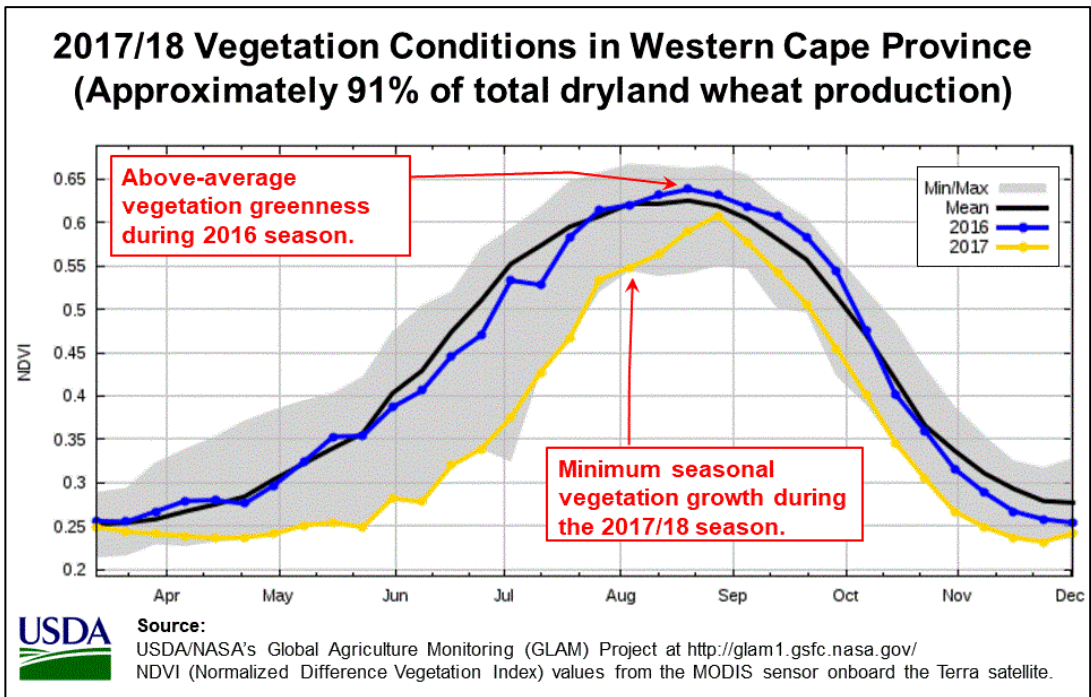


Figure 4. Vegetation conditions (NDVI) were the lowest on record for most of the season.

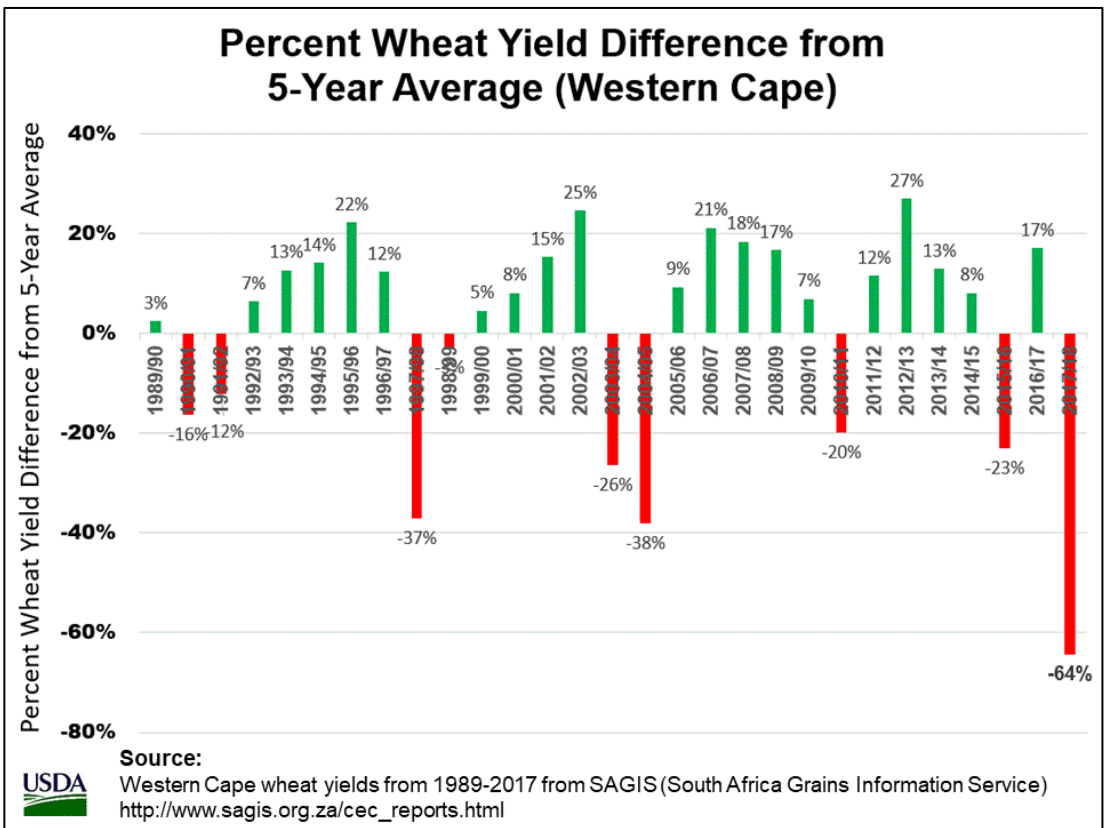


Figure 5. Western Cape’s 2017 wheat yields are estimated 64 percent below the 5-year average.

This report on South Africa’s 2017/18 wheat crop was provided by the FAS Office of Global Analysis (OGA), International Production Assessment Division (IPAD). Current USDA area and production estimates for grains and other agricultural commodities are available at [PSD Online](https://apps.fas.usda.gov/psdonline/app/index.html#/app/advQuery) (<https://apps.fas.usda.gov/psdonline/app/index.html#/app/advQuery>).

Other related links at FAS for monitoring worldwide crop conditions and droughts are available at: [Crop Explorer](https://ipad.fas.usda.gov/cropexplorer/Default.aspx) for monitoring Drought Severity via SPI-CHIRPS (<https://ipad.fas.usda.gov/cropexplorer/Default.aspx>)

USDA/NASA [GLAM \(Global Agriculture Monitoring\)](https://glam1.gsfc.nasa.gov/) System for MODIS-NDVI Time Series Graphs (<https://glam1.gsfc.nasa.gov/>)

FAS [World Agricultural Production \(WAP\)](https://www.fas.usda.gov/data/world-agricultural-production) circular (<https://www.fas.usda.gov/data/world-agricultural-production>)