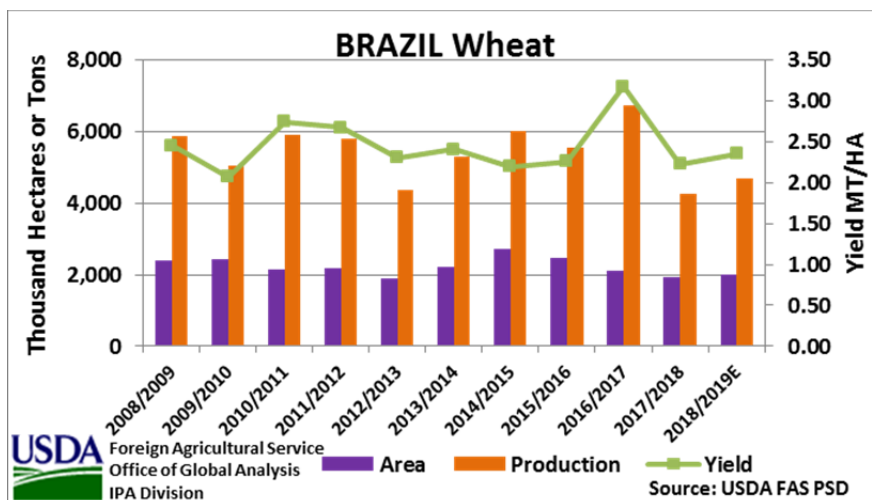




# Commodity Intelligence Report

## Brazil Wheat: Rains Arrived Too Late for Drought-Affected Areas of Paraná

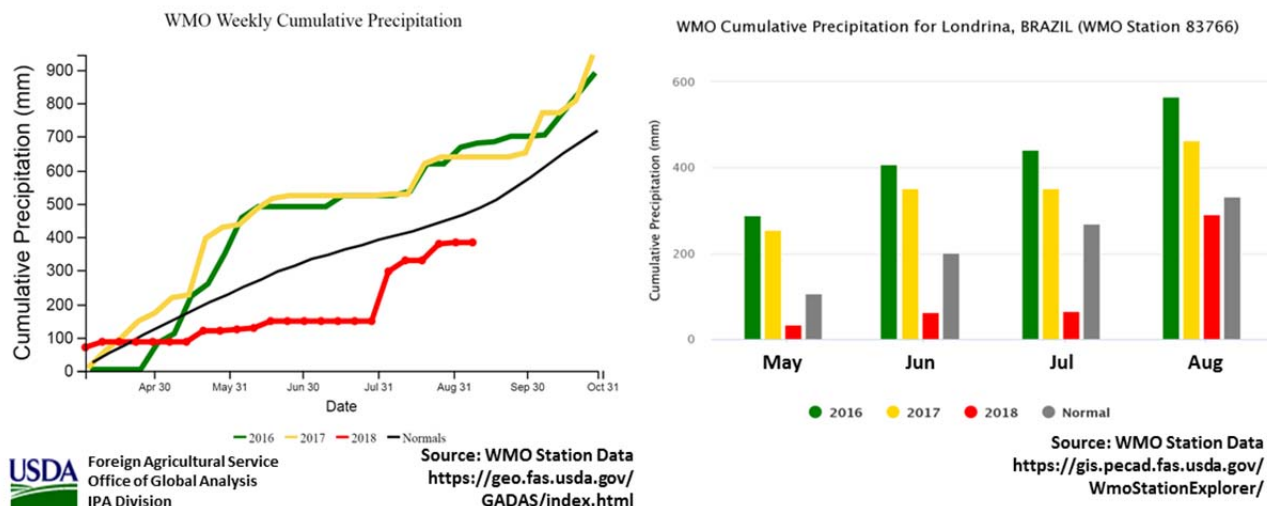
Brazil wheat production for 2018/19 is estimated at 4.7 million metric tons (mmt), up 0.44 mmt or 10 percent from last year but down 16 percent from the 5-year average. Unfavorable weather reduced last year's yield. Area is estimated at 2.0 million hectares, up 0.08 mha from last year. After several successive years of decline, wheat area rose this season for the first time in four years (Figure 1). Production, however, is estimated down from last year due to early season drought that reduced prospects for the crop in portions of Paraná. The return of rainfall in August and early September was beneficial for the crop although yield is still lower than the 5-year average due to drought losses.



**Figure 1.** Wheat area is up for the first time in four years. Production is estimated to recover from last year's reduced output due to unfavorable weather.

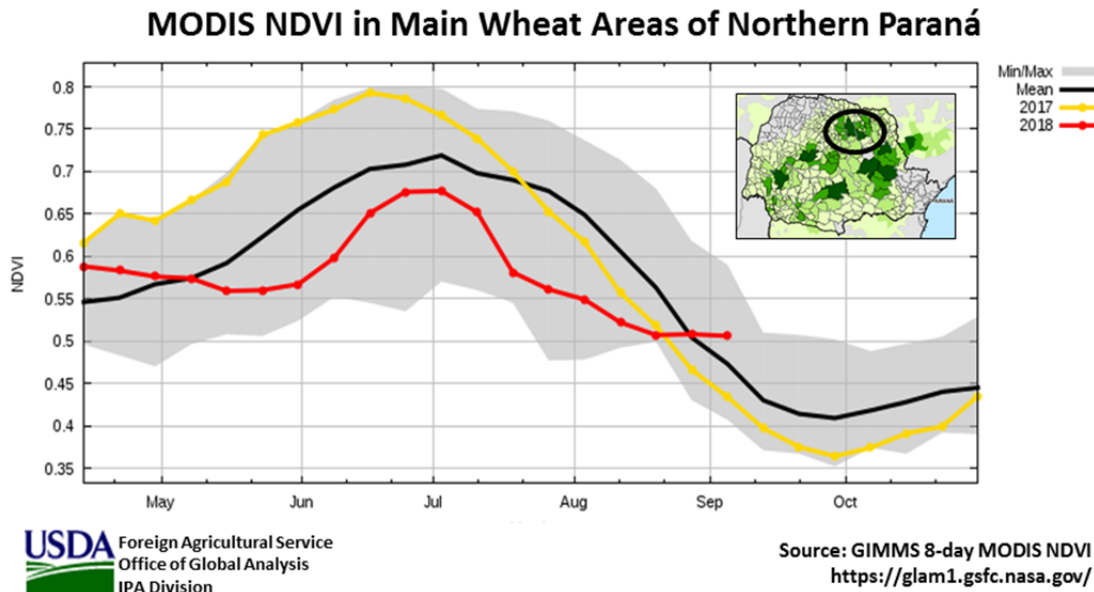
Nearly 90 percent of Brazil's wheat is grown in the southern states of Paraná, Rio Grande do Sul and Santa Catarina. The remainder of the crop is produced in the minor wheat areas of the center-west and southeast regions (Figure 2). Brazil's wheat for marketing year 2018/19 was planted from April through July, 2018. Wheat harvest is beginning now in Paraná and will continue to December.

More than half of Brazil's wheat is produced in the state of Paraná. Despite long periods without rain that delayed planting in some areas, farmers sowed 4 percent more area than last year. In other areas, dry conditions persisted through the reproductive stages of the crop. The duration and intensity of the drought were significant, lasting three consecutive months (Figure 3) during which the infrequent rains that did occur were at levels far below normal (Figure 4).



**Figure 4.** In Londrina, northern Paraná (WMO Station 83766), rainfall was very sparse from May-July.

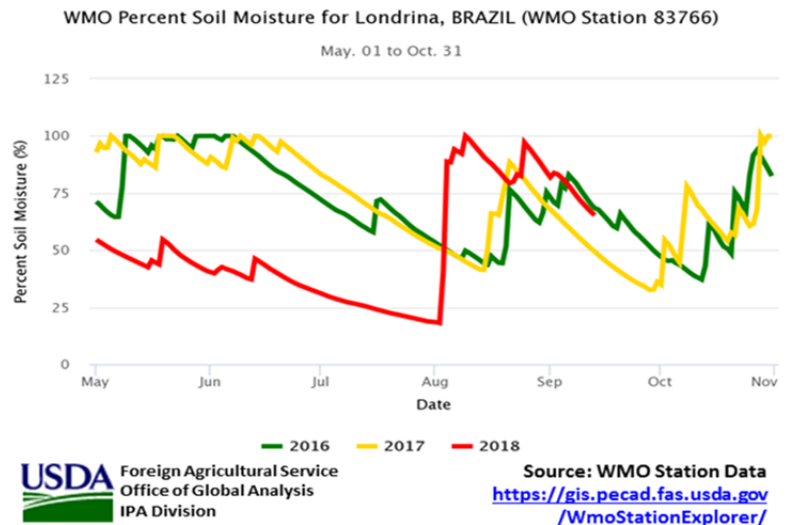
In Paraná's northern wheat region during July, the crop was stressed by inadequate moisture at a crucial time in its development – at flowering. The satellite-derived Normalized Difference Vegetation Index (NDVI) from late July confirms the negative impact of drought in the northern region (Figure 5). The NDVI indicates the crop condition is worse than average and worse than last year (Figure 6).



**Figure 6.** In main wheat areas of northern Paraná, NDVI indicates crop condition is below average and below last year.

Rain returned to Paraná in August and early September, providing needed relief and improving soil moisture (Figure 7) but was too late to reverse the impact of drought in parts of the northern and north-central regions where yields have been reduced. In southern wheat regions, frosts in early and late August (Figure 8) and in early September, combined with episodes of hail caused localized damage and reduced yield prospects.

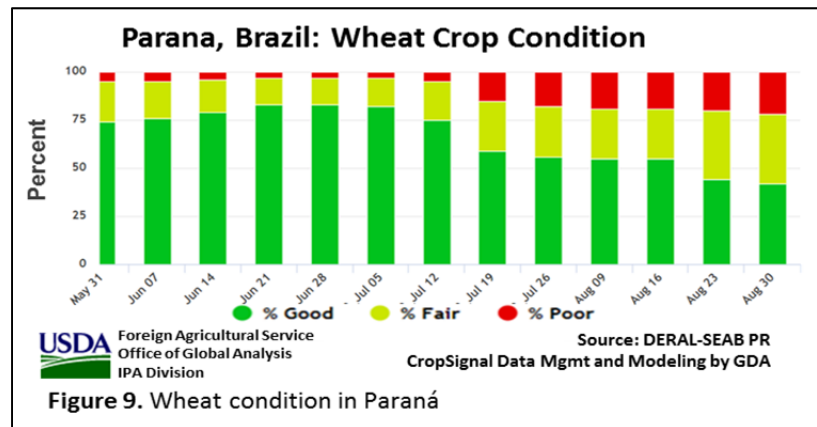
Overall, Paraná wheat conditions have been declining since mid-July (Figure 9), according to the Department of Rural Economy of the Paraná State Secretary of Agriculture and Supply (SEAB-DERAL). Already this season, SEAB-DERAL has reduced yield estimates by 10 percent from their initial estimate.



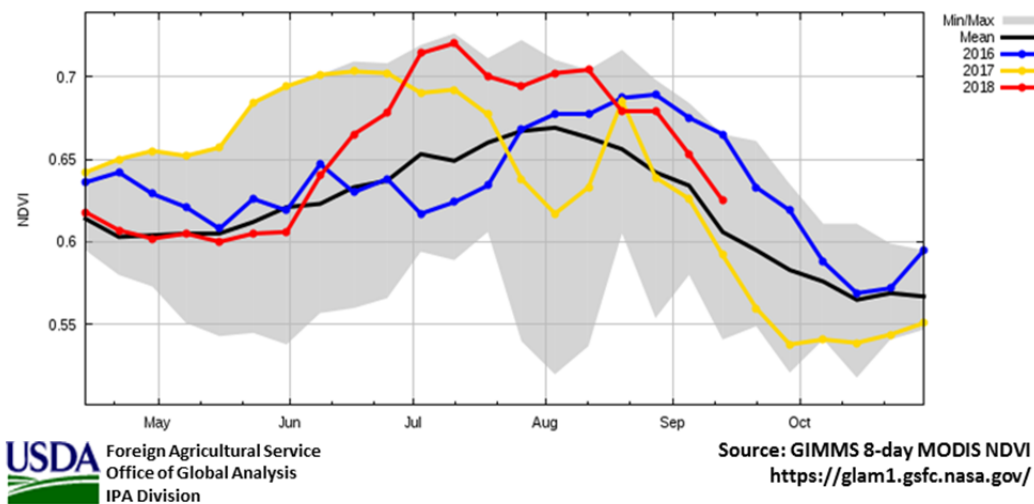
**Figure 7.** In northern Paraná (Londrina WMO Station 83766), August rains replenished a three-month long soil moisture deficit.

SEAB-DERL reports the remainder of the crop is in fair to good condition. NDVI in the rest of the main wheat areas indicate crop conditions that are better than average and better than the previous two years (Figure 10).

More than half the wheat has reached maturity and harvest of the earliest sown wheat in the far west has begun. Most of the remaining crop is in varying stages from flowering to grain filling and will need additional moisture to complete its development.



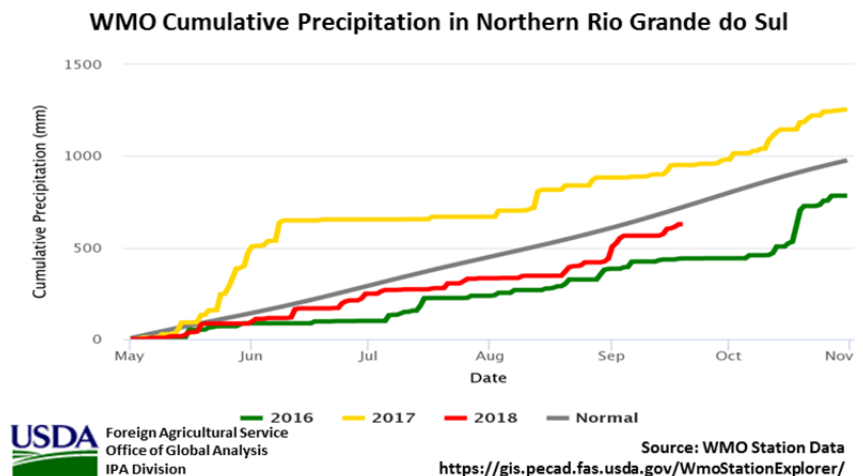
### MODIS NDVI in Wheat Areas of Paraná (excluding north)



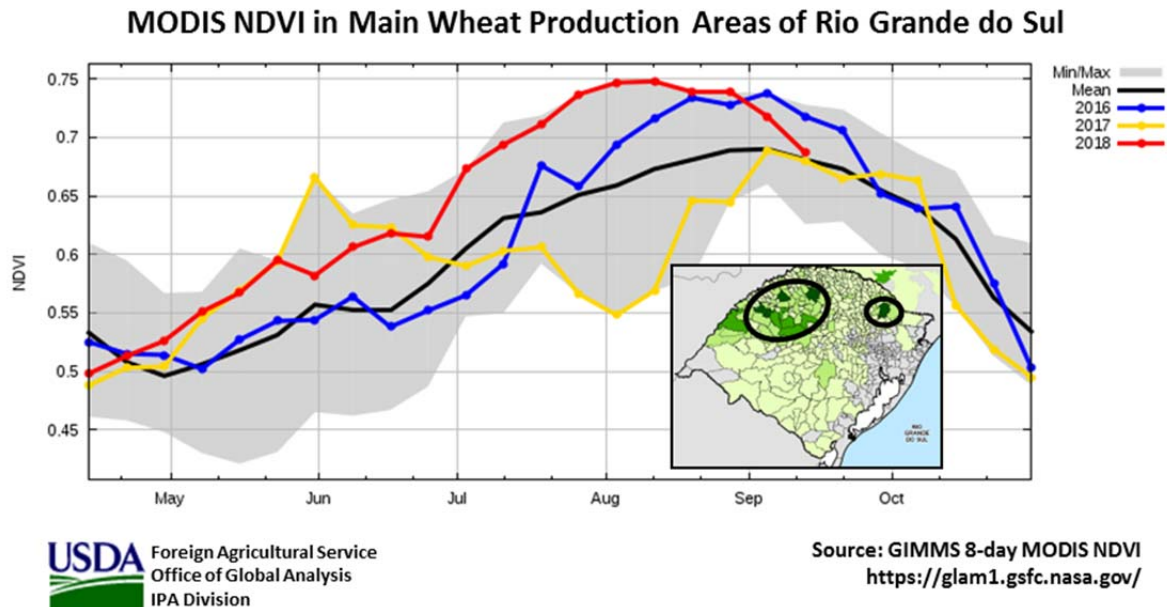
In Rio Grande do Sul (28 percent of production) the crop is progressing well. Wheat is planted later in Rio Grande do Sul than in Paraná, and follows the soybean harvest. Rainfall in the major wheat areas had been slightly below normal at the start of the season but yield prospects were boosted by heavy rains during late August and early September (Figure 11).

The frosts that occurred in late August (Figure 8) and early September extended into northern wheat areas of Rio Grande do Sul.

However, according to early reports by State Technical Assistance and Rural



Extension Enterprise in Rio Grande do Sul (EMATER/RS), the freezing temperatures mostly affected crops in low-lying areas and should not significantly impact overall yields. The majority of the wheat was not in advanced stages of development at that time. NDVI in the main wheat areas are better than average and better than the previous two years (Figure 12). Less than 20 percent of the crop is in tillering stage, and the remainder in flowering to grain development stages. The majority of wheat will be harvested from October to December.



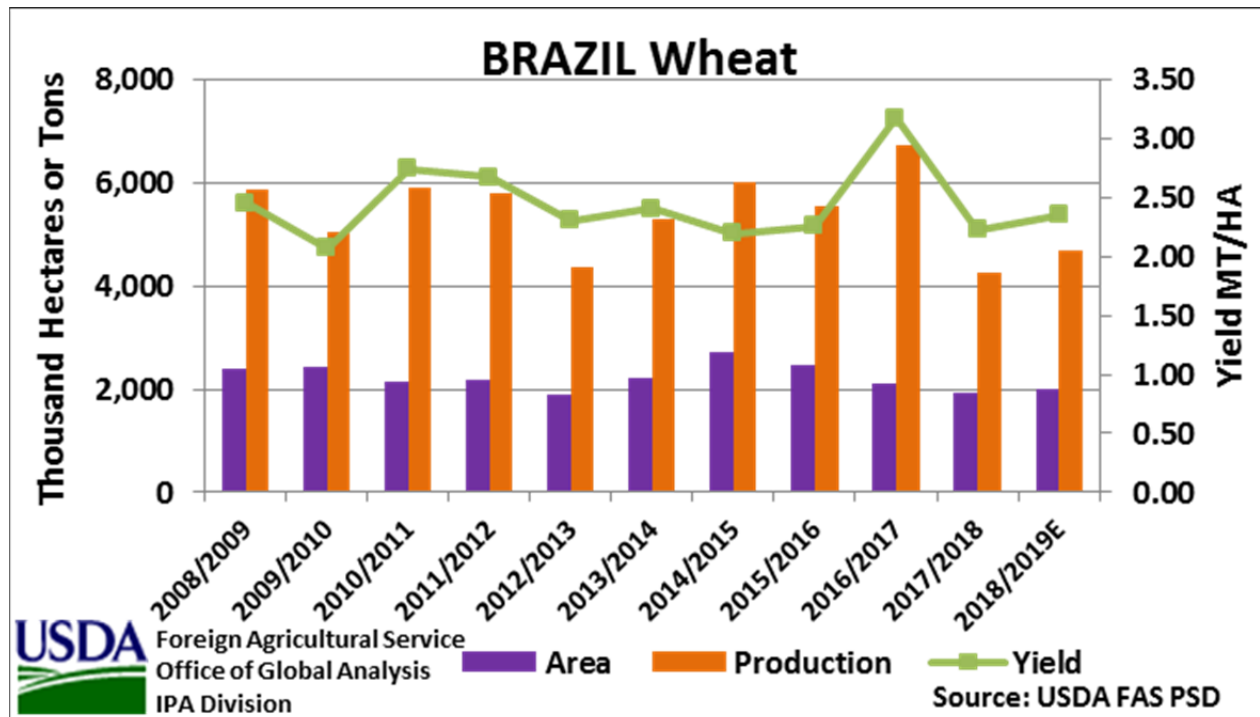
**Figure 12.** In main wheat areas of Rio Grande, NDVI indicates crop conditions are above average and better than the previous two seasons.

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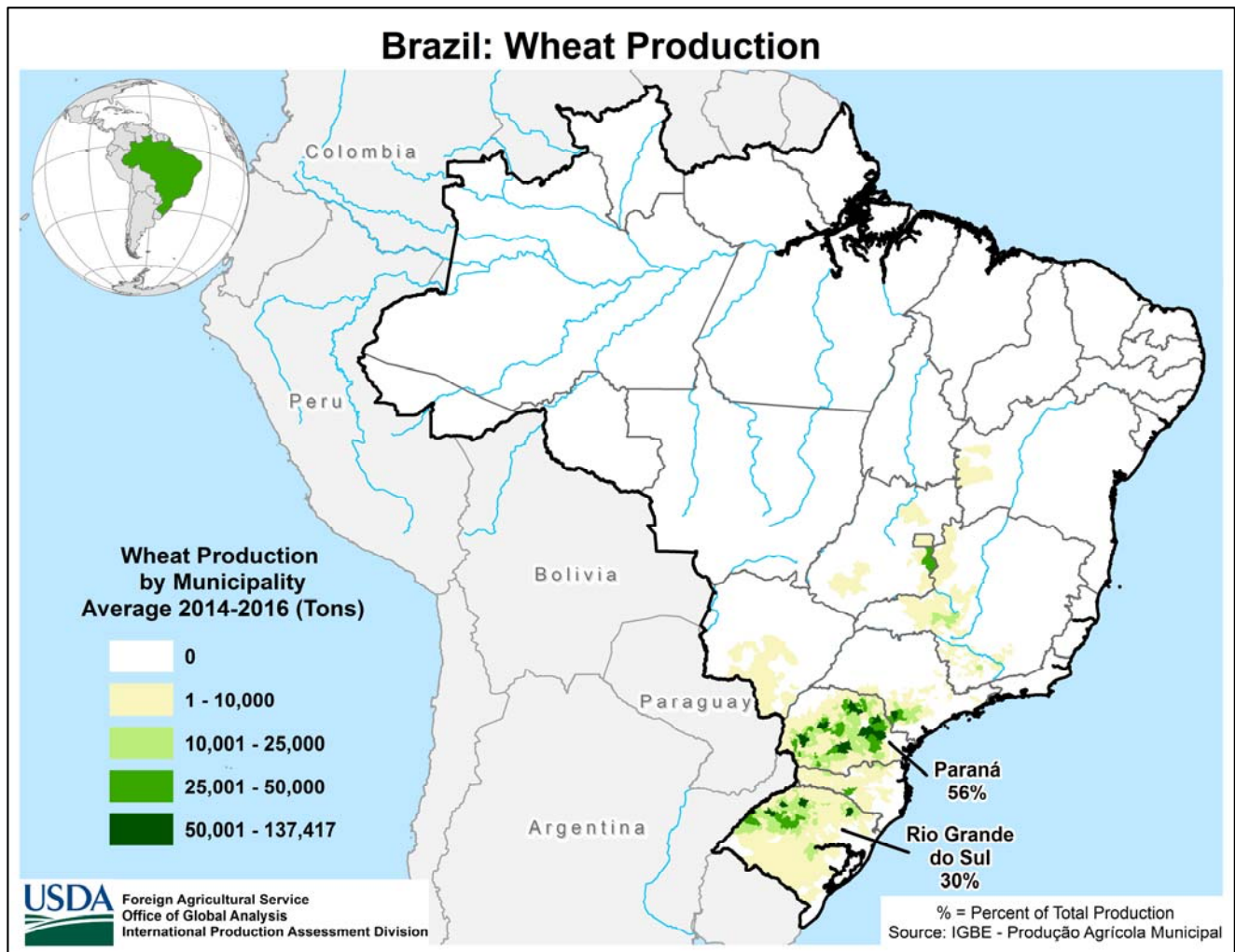
Current area and production estimates for grains and other agricultural commodities are available on IPAD's Agricultural Production page:  
[Crop Explorer https://ipad.fas.usda.gov/cropexplorer/](https://ipad.fas.usda.gov/cropexplorer/) or

Production, Supply and Distribution Database (PSD Online):  
<http://apps.fas.usda.gov/psdonline/psdHome.aspx>

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**Figure 1.** Wheat area is up for the first time in four years. Production is estimated to recover from last year's reduced output due to unfavorable weather.



**Figure 2.** The majority of wheat is grown in Paraná and Rio Grande do Sul

<https://ipad.fas.usda.gov/oqamaps/cropproductionmaps.aspx>

