

# ANNUAL WHEAT NEWSLETTER

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Contribution no. 23-035-B from the Kansas Agricultural Experiment Station,  
Kansas State University, Manhattan.

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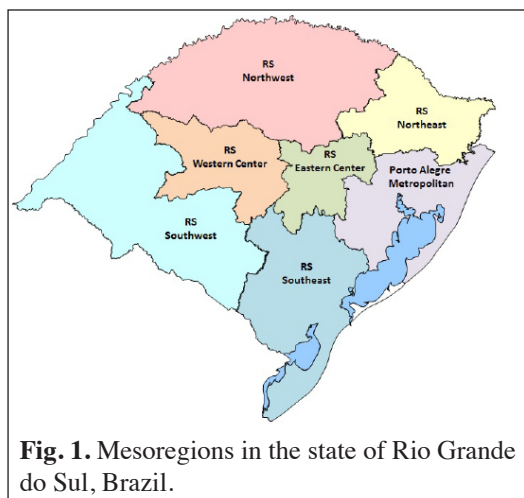
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**The wheat crop in the state of Rio Grande do Sul, Brazil, 2020.**

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The state of Rio Grande do Sul (RS) is one of the main wheat producing states in Brazil. The objective of this study was to analyze the wheat crop in Rio Grande do Sul in 2020. In 2020, Rio Grande do Sul harvested 953,382 ha of wheat (39.2% of the total area harvested in Brazil), producing 2,104,160 tons of wheat (33.1% of the Brazilian production), with an average of grain yield of 2,207 kg/ha (400 kg/ha below the Brazilian average of 2,607 kg/ha). Among the geographical mesoregions of Rio Grande do Sul state (Fig. 1), the RS Northwest mesoregion harvested the largest wheat area at 742,854 ha (77.9% of the cropped area in the state) and had the largest production, 1,535,955 tons of wheat grain (73.0% of state’s production) (Table 1). However, the average wheat grain yield obtained in this mesoregion was the lowest of the state at 2,068 kg/ha (139 kg/ha below the state average) (Table 1), which was due mainly to late frosts during flowering.



**Fig. 1.** Mesoregions in the state of Rio Grande do Sul, Brazil.

The RS Northeast mesoregion harvested 43,829 ha of wheat (4.6% of the cropped area in the state), produced 159,272 tons of wheat grain (7.6% of state production), and had the highest average wheat grain yield of the state at 3,634 kg/ha (1,427 kg/ha above the state’s average) (Table 1).

The wheat crop in Rio Grande do Sul in 2020 had some unfavorable environmental conditions, notably (i) the occurrence of yellow rust (until then with rare occurrence in Brazil), (ii) the breakdown of leaf rust resistance (race B62) in some resistant cultivars, and (iii) the occurrence of late frosts that coincided with flowering and the beginning of grain filling, especially in the RS Northwest mesoregion. Comparing the wheat crop data with the results of the State Test of Wheat Cultivars in Rio Grande do Sul (STWC-RS) in 2020, we observed that the average of wheat grain yield of commercial crops was 3,291 kg/ha below the average of (5,498 kg/ha).

**Table 1.** Area harvested, production, and average of grain yield of wheat in each of the mesoregions (see Fig. 1) of the state of Rio Grande do Sul, Brazil, in 2020 (Source: IBGE, 2022).

Mesoregion	Area harvested		Production		Grain yield (kg/ha)
	ha	%	tons	%	
RS Northwest	742,854	77.9	1,535,955	73.0	2,068
RS Northeast	43,829	4.6	159,272	7.6	3,634
RS Western Center	53,945	5.7	135,05	6.4	2,504
RS Eastern Center	15,807	1.7	39,971	1.9	2,529
Porto Alegre Metropolitan	2,044	0.2	4,879	0.2	2,387
RS Southwest	86,098	9.0	206,333	9.8	2,396
RS Southeast	8,805	0.9	22,645	1.1	2,572
<b>Rio Grande do Sul State</b>	<b>953,382</b>	<b>100.0</b>	<b>2,104,160</b>	<b>100.0</b>	<b>2,207</b>

Reference.

IBGE. 2022. Produção Agrícola Municipal. Disponível in <<https://www.ibge.gov.br/estatisticas/economicas/agricultura-e-pecuaria/9117-producao-agricola-municipal-culturas-temporarias-e-permanentes.html?=&t=resultados>>. Accessed on 30 April, 2022. Note: Aggregate database of studies and surveys carried out by IBGE.