

The Inova, FPS Certero, Topázio, ORS Vintecincinco, and TBIO Mestre cultivars had adaptability and stability in favorable environments (environments with average of wheat grain yield higher than the general average). Cultivars Topázio, FPS Certero, LG Oro, BRS Reponde, and Inova had adaptability and stability in unfavorable environments (environments with average of wheat grain yield lower than the general average). The general average of all environments, cultivars FPS Certero (3,963 kg/ha), Topázio (3,920 kg/ha), Inova (3,948 kg/ha), LG Oro (3,818 kg/ha), and ORS 1401 (3,780 kg/ha) came closest to the ideal cultivar.

Reference.

Carneiro PCS. 1998. New methodologies for analyzing the stability and adaptability of behavior. Viçosa: UFV, 1998. 168p. Thesis (Ph.D. in Genetics and Breeding), Post Graduate Program in Genetics and Breeding, Federal University of Viçosa.

Wheat crop in the state of Rio Grande do Sul, Brazil, 2017.

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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 state, in the year 2017. In 2017, RS harvested 690,233 ha of wheat (36.4 % of the total area harvested in Brazil), producing 1,192,918 tons of wheat (27.6% of Brazilian production), with an average of grain yield of 1,728 kg/ha (552 kg/ha below the Brazilian average: 2,280 kg/ha). Among the geographical mesoregions of RS (Fig. 2), the Northwest mesoregion harvested the largest wheat area: 550,973 ha (79.8% of the cropped area in the state) and had the largest production: 884,908 tons of wheat grain (74.2% of state production, Table 4). However, the average of wheat grain yield obtained in this mesoregion was the lowest of the state: 1,606 kg/ha (122 kg/ha below the state average, Table 4). The Northeast mesoregion harvested 36,730 ha of wheat (5.3% of the cropped area in the state), produced 115,001 tons of wheat grain (9.6% of state production), and had the highest average of wheat grain yield of the state: 3,131 kg/ha (1,403 kg/ha above the state average, Table 1). The wheat crop in the state of RS in 2017 had unfavorable weather conditions, with (i) lots of rain at the beginning of the sowing period, resulting in delayed sowing; (ii) rain lack in the crop growing period, resulting in the reduction of tillering and plant density; (iii) late frosts in some regions, especially in the Northwest mesoregion, damaging the grain formation and Alling; and (iv) excessive rainfall in spring, resulting in high incidence of Fusarium head blight, the most important wheat disease in RS. Comparing the wheat crop data with the results of the State Test of Wheat Cultivars in RS (STWC-RS) in 2017, the average of wheat grain yield of commercial crops was 1,816 kg/ha below the average of STWC-RS (3,544 kg/ha).

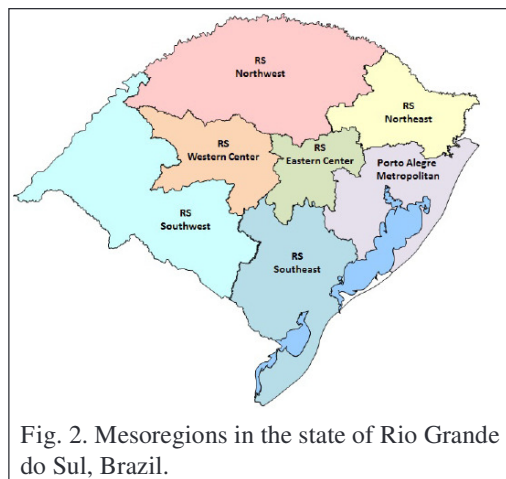


Fig. 2. Mesoregions in the state of Rio Grande do Sul, Brazil.

Table 4. 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 2017 (Source: IBGE. 2019).

Mesoregion	Area harvested		Production		Grain yield (kg/ha)
	ha	%	tons	%	
RS Northwest	550,973	79.8	884,908	74.2	1,606
RS Northeast	36,730	5.3	115,001	9.6	3,131
RS Western Center	44,729	6.5	77,948	6.5	1,743
RS Eastern Center	8,591	1.2	14,116	1.2	1,643
Porto Alegre Metropolitan	1,140	0.2	3,075	0.3	2,697
RS Southwest	43,150	6.3	87,154	7.3	2,020
RS Southeast	4,920	0.7	10,716	0.9	2,178
Rio Grande do Sul State	690,233	100.0	1,192,918	100.0	1,728

Reference.

IBGE. 2019. Sistema IBGE de Recuperação Automática - SIDRA. Available at <<https://sidra.ibge.gov.br/Tabela/1612>>. Accessed 24 March, 2019. Banco de dados agregados de estudos e pesquisas realizados pelo IBGE (In Portuguese).