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Supplementary Table 1. Phenological stages and duration of the periods (seeding, emergency, tillering, flowering, maturation and harvest) for the five wheat crops BRS 254 and BRS 394.

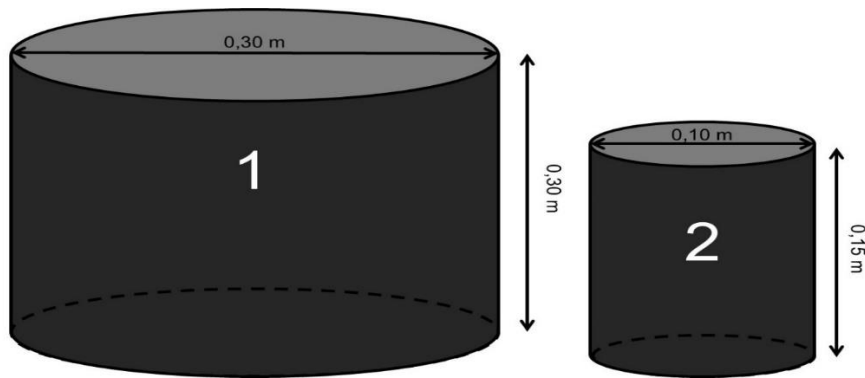
Phenological stages	Experiment					
				Duration of stages in days		
	A	B-K e B-S	C-K and C-S	A	B-K and B-S	C-K and C-S
	2016	2016	2017			
Seeding	20/06	05/05	03/05	0	0	0
Emergency	26/06	10/05	12/05	6	5	9
Tillering	13/07	25/05	27/05	17	15	15
Flowering	02/08	24/06	26/06	20	30	30
Maturation	05/09	26/07	05/08	34	32	40
Harvest	14/09	05/08	15/08	9	10	10
Total	-	-	-	86	92	104

Supplementary Table 1. Chemical characterization of the Oxisol of the experimental area in the years 2016 and 2017 in the layer 0 to 0.20 m.

Year	pH CaCl ₂	P ----- mg dm ⁻³ -----	K	S	Ca	Mg	Al+H	CTC	O.M. g kg ⁻¹	V ----- % -----	M
Experiment BRS-254											
2016	5.8	7.2	84.9		3.3	1.2	-	6.6	27.1	70.7	0
2017	5.1	13.8	69.1		3.7	2.7	4.4	8.3	35.6	46.6	0
Experiment BRS-394											
2016	4.0	1.1	25.3	5.7	0.15	0.12	6.65	6.99	20.6	4.86	75.89
2017	4.62	9.89	76.39	12.78	1.75	0.68	5.13	7.69	32.22	33.32	10.12

Supplementary Table 3. Criteria for performance classification of models (Camargo and Sentelhas (1997)).

"c" value	Performance
> 0.85	Great
0.76 a 0.85	Very good
0.66 a 0.75	Good
0.61 a 0.65	Median
0.51 a 0.60	Affordable
0.41 a 0.50	Bad
≤ 0.40	Terrible



Supplementary Fig 1. Representation of the dimensions of weighing lysimeters (0.0674 m^2) (1) and small-lysimeters (0.0074 m^2) (2) used. Rondonópolis, Mato Grosso - Brazil.
Supplementary Figure 1



Supplementary Fig 2. Lysimeter, small-lysimeter and access tube installed in the experimental plot.