1

(b)  $p - value = 0.0019 < \alpha = 0.05$ , reject  $H_0$ .

2

	Source		$\mathrm{d}\mathrm{f}$	SS	MS	$\mathbf{F}$	
(a)	Propper(A)		1	4.5	4.5	32.3741	
	Corn(B)		2	15.75	7.875	56.654	
	Interaction(A*B)		2	0.08	0.04	0.288	
	error		12	1.67	0.139		
	total		17	22.00			
(b)	p-value = 0.	755 >	> α =	$\alpha = 0.5$ , can't reject $H_0$ .			
	Source	df	SS	MS	$\mathbf{F}$		
(c)	Propper(A)	1	4.5	4.5	36		
	$\operatorname{Corn}(B)$	2	15.75	7.87	5 63		
	error	14	1.75	0.125	5		

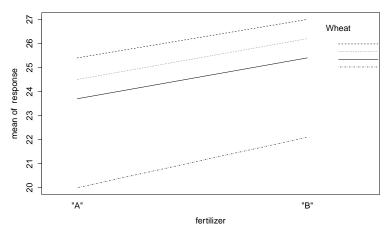
(e)  $p - value = 3.25e - 05 < \alpha = 0.05$ , reject  $H_0$ .

17 22.00

(f)  $p - value = 1e - 07 < \alpha = 0.05$ , reject  $H_0$ .

total

3



- 1. No interaction.
- 2. Df Sum Sq Mean Sq F value Pr(>F)

fertilizer 1 18.90 18.904 48.63 3.14e-06 \*\*\*

Wheat 3 92.02 30.674 78.90 8.37e-10 \*\*\*

fertilizer:Wheat 3 0.22 0.074 0.19 0.902

Residuals 16 6.22 0.389

---

Signif. codes: 0 \*\*\* 0.001 \*\* 0.01 \* 0.05 . 0.1 1

3. Df Sum Sq Mean Sq F value Pr(>F)

fertilizer 1 18.90 18.904 4.224 0.0519 .

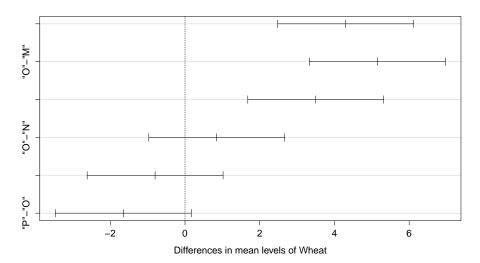
Residuals 22 98.46 4.476

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Signif. codes: 0 \*\*\* 0.001 \*\* 0.01 \* 0.05 . 0.1 1

Reject  $H_0$ . Pairwise comparisons:

## 95% family-wise confidence level



4. Df Sum Sq Mean Sq F value Pr(>F)

Wheat 3 92.02 30.674

24.2 7.32e-07 \*\*\*

Residuals 20 25.34 1.267

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Signif. codes: 0 \*\*\* 0.001 \*\* 0.01 \* 0.05 . 0.1 1

Reject  $H_0$ . Pairwise comparisons:

## 95% family-wise confidence level

