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### Generation means analysis for yield and its components in two bread wheat (*Triticum aestivum* L.) crosses under saline conditions

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Means of the six generations ( $P_1$ ,  $P_2$ ,  $F_1$ ,  $F_2$ ,  $BC_1$  and  $BC_2$ ) of the two wheat crosses; (1) Giza 168 × IG 4198 ICBW 207010 and the cross (II) Gemmeiza 10 × IG 41897 ICBW 201657 were used to estimate genetic parameters. The results of scaling test indicated that each of A, B and C were significant or highly significant in the two crosses for most traits. Results also revealed the presence of nonallelic gene interaction for most traits studied in the two crosses except no. of spekeletes/spike in the cross II, The additive gene effects (d) were significant or highly significant and either positive or negative for all traits studied except no. of spikes/plant and no of spekeletes/spike in the two crosses and 50% flowering and spike length in cross I suggesting the potential for obtaining further improvement of these traits by selection practice of their progenies. The dominance gene effects (h) were found to be highly significant for most studied traits except 50% flowering in cross I and plant height, spike length, no of spekeletes/ spike and 1000 -kernel weight in cross II. The magnitude of additive gene effects (d) were small relative to the corresponding dominance effects (h) in most cases, suggesting that pedigree selection method is a useful breeding program for improving these populations. However, the negative value of (h) observed in most cases indicated that the alleles responsible for less value of the trait were dominant over the alleles controlling high value. Significant epistatic additive × additive type of gene effects [i] was detected for plant height, no of spikes/ plant and grain yield/plant in the two crosses and 50% flowering and no. of kernels/plant in crosses II and spike length and no of spekeletes/ spike in cross I. Additive × dominance epistatic type of gene effects [j] was found to be significant for 50% flowering, spike length, no. of kernels/plant, 1000-kernel weight and grain yield/plant in the two crosses under investigations, and no of spekeletes/spike in cross II .The negative sign of additive × dominance [j] interaction in most cases also suggested dispersion of genes in the parents. Concerning the third type of epistatic effect i.e. .dominance × dominance [l], highly significant effects were detected for no of spikes/plant, plant height, spike length, no. of kernels/plant and 1000-kernel weight in all crosses and 50% flowering and grain yield/plant in cross II. The additive gene effects (d) were significant or high significant and either positive or negative for all traits studied except no. The simple genetic model (m, d, and h) was applied when epistasis was absent. The values of additive (d) were significant or highly significant and either positive or negative for all traits except grain yield in the two crosses, no. of spikes plant and no. of kernels/plant in cross I and 1000- kernel weight in cross II. The values of dominance (h) were significant or high significant and either positive or negative in all traits accept no. of spekeletes/spike in the two crosses, 50% flowering and no. of kernels/plant in cross I.

#### Biography

Mohamed S Hassan Ahmed has completed his Ph.D. at the age of 35 years from Suez Canal University, Egypt and postdoctoral studies from South Valley University, Egypt. He is the Head of Agronomy Department, Faculty of Agriculture, South Valley University. He has published more than 11 papers in reputed journals.

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### Gender roles in agro biodiversity conservation through homestead farming and threats faced by the farmers

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Homestead farming is a traditional practice of multiple and mixed cropping in small holdings in Kerala. Agro biodiversity is the major component of home garden. Home gardens are microenvironments containing high levels of species and genetic diversity within larger farming systems. Now a day's these home gardens are in declining stage due to various reasons so in order to find out the gender roles and the major threats in agro biodiversity conservation in Thrissur district of Kerala. Findings revealed majority of the activities aimed at agro biodiversity conservation were carried out by women. Regarding the threats, the major threat for agro biodiversity was unsustainable human activity (100%) followed by large scale introduction of cash crops (96.67%). Homesteads of Kerala provide hope for the future of agriculture in the state, as still families involve in part time maintenance of the homesteads, which is the only way possible within the changed way of life of today.

#### Biography

N Krishna Priya completed her PG at the age of 23 years from Kerala Agricultural University and she is pursuing Ph.D. in Dept. of Agricultural Extension, Agricultural College Bapatla in Acharya N. G. Ranga Agricultural University, India. She has published 5 articles in reputed journals.

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