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Genetic variability, correlation and path coefficient analysis of different kharif onion genotypes in Chhattisgarh plains

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Genetic variability, correlation coefficient and path coefficient were studied in onion involving 23 genotypes. High estimates of PCV were recorded in marketable bulb yield, total bulb yield, collar height and average bulb weight. While, GCV were recorded highest in marketable bulb yield and total bulb yield. High heritability coupled with high genetic advance as per cent of mean were observed for total bulb yield, marketable bulb yield, average bulb weight and collar height. Correlation coefficient analysis revealed that total bulb yield had positive significant correlation with number of leaves/plant, plant height, collar height, polar and equatorial diameter of bulb, average bulb weight and marketable bulb yield. Path coefficient analysis revealed that number of leaves/plant, plant height, leaf thickness, TSS, polar and equatorial diameter of bulb, average bulb weight and marketable bulb yield exhibited positive direct effect on total bulb yield. In addition to this, neck thickness, collar height and leaf length showed negative direct effect on total bulb yield at phenotypic levels and could be utilized as selection criteria in onion improvement programme for Chhattisgarh plains.

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