

عنوان مقاله:

Response of agronomic characteristics of oilseed rape (*Brassica napus* L.) to drought stress

محل انتشار:

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خلاصہ مقاله:

Climate change may contribute to drought stress and limit crop production. The oilseed rape (*Brassica napus* L.) cultivation area has declined due to drought stress. Identification of high-yielding and tolerant varieties could be regarded as a solution to this problem. Twelve oilseed rape genotypes were planted under drought stress and normal conditions in Lishtar, Gachsaran, Iran, using a randomized complete block design with three replications in ۲۰۱۷. A considerable decline in the pods per plant (۷۶%), pod length (۲۰%), grain yield (۸۰%), biomass (۷۳%), harvest index (۳۷%), plant height (۳۴%), seeds per pod (۴۱%) and branches per plant (۴۱%) of genotypes was observed in the evaluated genotypes of the oilseed rape as the consequence of drought stress. In general, grain yield, biomass, and pods per plant had a very high sensitivity to moisture reduction. The significant direct effect of the pod number and ۱۰۰۰-seed weight on the grain yield showed that these characteristics can be used to select the promising genotypes to increase the grain yield of oilseed rape under normal conditions. Under drought stress conditions, branch number per plant, pod length, and seeds per pod had a significant direct effect on grain yield. Increasing these traits and reducing the plant height and shortening the growth period may improve the grain yield of the oilseed rape. Hyola۴۰۱, RGS۰۰۳, and Hyola۳۰۸, showed the highest grain yield under both drought stress and normal conditions among the evaluated oilseed rape genotypes. They may be regarded as the promising varieties to be planted in the conditions of the experimental site or similar areas.

کلمات کلیدی:

Direct effect, Drought, Oilseed Rape, Path analysis

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