

EVALUATION OF DROUGHT TOLERANCE ,AND GROWTH AND YIELD TRAITS FOR CULTIVARS OF FIELD PEAS(*Pisum sativum L.*) PLANTED UNDER RAIN FED AREAS.

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ABSTRACT

The study evaluated drought tolerance for five new cultivars of Field Peas(*Pisum sativum L.*) introduced from ICARDA for the first time to rain fed areas in Iraq and planting them in 3 different environmental locations(Alqush ,Telkief MRA and Mosul MRA). Because the 2009 season is drought season the only location realized the complete results for studied traits is Alqush location which classified as High Rainfall Area , despite this season we get only(210mm)which is less than half of yearly mean precipitation.

Randomized Complete Block Design RCBD was used in this experiment with 3 Replicates each Rep. 5 square meter, the Morphological & productival traits for the fifth cultivars studied to know which cultivar from the 5 cultivars was suitable for rain fed planting in Ninevah governorate.

The results indicate that the cv. Local check was superior in , pod length 8.33 cm ,width 16.37 mm and thickness 8.53 mm, and in no. seeds in pod 7.67, seed diameter 8.60 mm and weight of 1000 seeds 200.8gm .

In productival traits the cv.s Dunwa and Local check have significant values in dry seeds yield 143.2 & 142.8 gm in square meter and 358.0 & 357.0 kg in Iraqi Donum(2500 m²)respectively , the cv. Dunwa was superior in no. seeds 1204.0 in square meter , the cv. Kaspas was the only cv. Who have the highest significant values in straw weight 427.85 gm in square meter and 1098.63 kg in Iraqi Donum, but he was the last cv. in other morphological and yield component traits.

This positive results for this crop even under drought season make this crop a promising crop to be alternate of some other legumes crops in rain fed area like chickpea and lentil.