

# **RESPONSE OF PEA CULTIVARS TO SPRAYING WITH SEAWEED EXTRACTS .**

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## **ABSTRACT**

A field experiment was conducted in the growing season 2010/2011 in two different districts : Al-Rashidya and Al-Salihya/Ninevah , to study the effect of spraying seaweed extract "kelp 40" at 2ml/l , (0, once and twice) on four pea cultivars namely : Spring , Petit Provencal, Mammoth Melting and Thomas Laxton. Results indicated that "kelp 40" affected significantly stem length , No. branches/plant, chlorophyll content, pods/plant, seeds/pod, dry seeds yield, some seeds quality parameters and seeds mineral content in the two districts. Results also showed that twice foliar applications with 2ml/l of kelp40 gave the highest dry seed yield 1928.30 , 2134.80 kg/ha in the two districts respectively. Mammoth Melting cultivar gave the highest dry seeds yield 2881.48, 3021.92kg/ha , in Al-Rashidya and Salihya districts respectively. Results indicated that spraying twice with kelp 40 gave the highest value in the protein, carbohydrate and TSS in Salihya district , 25.08% , 7.437 Microgram/gm dry weight and 14.50% respectively as compared with Rashidya district . Also the same treatment gave highest value of mineral concentrations as follow: 4.012% N, 0.470% P, 2.924%K, 0.352%Ca, 0.337%Mg, and 0.019%Fe as compared with Al-Rashidya district. Generally plants grown in Al-Salihya district gave higher mean values of studied characteristics than those grown in Al-Rashidya district.

**Key words:** Seaweed extracts , Kelp40, Foliar fertilization, Pea, Cultivars .