

THE EFFECT OF OIL CONTAMINATE ON UNDERGROUND ORGANS OF POA BULBOSA ON DROUGHT STRESS CONDITION

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ABSTRACT

Crude oil is one of the most important pollutants of the soil in the southern part of Iran especially near the oil refinery. Crude oil can leak into the soil. Two types of plants including legumes and grasses have a potential to be used for phytoremediation. In addition, grasses can also be used in landscaping. As results two goals can be achieved with planting grass. A green house experiment was performed on *Poa bulbosa* root yield to introduce this plant to spread the green space on contaminated and hot region with 384 treatments in three repeats. Treatments have done on four levels of different rates of oil crude (0, 1%, 2% & 3% w/w) and four levels of Stress (no stress, ¼ stress, ½ stress & ¾ stress). Treatments have effect on root biomass, dry mass and length that significant at ($p < 0.01$). The efficiency of root was in level 3% oil pollution that increasing that traits than the non pollution about 16.8%, 20.2 % & 15.1% respectively. From stress treatments similar results indicate so that *Poa bulbosa* showed better results in the highest level of stress. Interactive effect of oil pollution and stress was significant at $p < 0.01$. With due attention to these results planting of *Poa bulbosa* In addition to development of green space in oil pollution and hot area were recommended.

Keywords: Stress, Oil pollution, Green Space, *Poa bulbosa*, yield

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