

# **INFLUENCE OF TYPE OF FIELD AND AGRICULTURAL PRACTICES OF LENTIL ON WEED SEED BANK IN SOIL .**

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## **ABSTRACT**

Weed seed bank study was carried out to determine the influences of different method of weed control in lentil on viable weed seed numbers soil at Talkief and Namrood locations in Naniva province during growing season 2008-2009. Soil samples had taken from two phase, the first phase with soil tested from samples under supplementary and rainfall area and from agricultural road side. The second phase, soil samples were tested at harvest time from the lentil experiment had three factors. Tillage system (no till. , no till. + Gramaxon, no till. + Glyphosate, conventional till.), Seed rate (100, 120 ,140 kg/ha) and irrigation system (rainfall, supplementary). The results showed that there were high significant difference in seed bank between the two phase of soil testing samples. The seed bank was much higher before the lentil experiment was planted than at harvesting time (second stage). In the first stage: seed bank was much higher at Talkief than at the AL-Namrood location. Agricultural road side typically have a higher population (more than twice) of weed seed at Talkief than at AL Namrood location. In the second stage, it can be confirmed that the lowest number of weed seed bank in soil had seen in NT + Gramoxone and in CT. at the two locations . On other hand , increasing seeding rates of lentil crop at Talkief location potentially reducing weed seed bank , but this results was unlikely in Namrood location which showed an opposite pattern with seeding rate at (140 kg/ha). In dry land farming the seed bank was much lees than at supplementary irrigation in the two locations, which reached up to 14.6% , 83.6% in Talkief and Namrood location respectively. The lower value of viable weed seeds bank noticed in the treatment of (CT x Supp. irrg. x 140 kg/ha) at Talkief location. Where as the lowest value at AL-Namrood location obtained at (NT x Supp. irrg. x 100 kg/ha) treatment. The percentage reduction in the two location were 85.4% and 98.1% at Talkief and Namrood respectively.