



University of Zabol
Graduate School
Department of Agronomy

**Thesis Submitted in Partial Fulfillment of the
Requirement for the degree of Master of Science (M. Sc) in
Agronomy**

**Evaluation yield of quantitative and qualitative aloe
vera in intercropping of barley (*Hordeum vulgare* L.)**

Supervisor:

Dr. M. Dahmardeh

Advisors:

Dr. E. Khamar

By:

Sima Mianji

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Abstract

This research performed in order to evaluate the effects of intercropping on barley and aloe vera on quantity and quality yield of components mixture in the field of Agricultural Research Institute, University of Zabol was conducted based on randomized complete block design with three replications in during 92-93. Treatments were barley monocrop, aloe vera monocrop, 25% barley+75% aloe vera, 75% aloe vera+25% barley, 50% barley+50% aloe vera, 100% barley+100% aloe vera, 35% barley+65% aloe vera, 65% barley+35% aloe vera, 55% barley+45% aloe vera, 45% barley+55% aloe vera. This experiment, the seeds of barley and aloe vera suckers were planted with desired intercropping rations at same time. For assessment ration of monocropping than intercropping used of LER. All characteristic of aloe vera except diameter, number of leaf and chlorophyll a were affected. So that maximum weight of gel total weight of aloe vera combined treatment of 65% barley+35% aloe vera. Also the effect of intercropping on all characteristic of barley except plant height, number of spike and tiller were significant. The maximum economic yield (584.29) of barley combined in 55% barley+45% aloe vera. LER was very significant and the highest of LER combined of treatment of 50% barley+50% aloe vera. According to results, intercropping of barley and aloe vera for maximum economic yield ration of 50% barley+50% aloe vera recommended. Therefore, barley shade caused to keep Aloe vera from severe winter weather and Aloe vera as a resistant plant can be successfully used in intercropping systems and agro - forestry systems

Keywords: shadow, extract, aloe vera, barley, intercropping