



MINISTRY OF JIHAD-E-AGRICULTURE

Agricultural Research, Education and Extension Organization  
Fars Agricultural and Natural Resources  
Research and Education Center

**Effects of different levels of barley hydroponic fodder on feedlot performance, carcass characteristics and economic indices of Fars native kids**

**Research worker: Hossain Noorollahi and Rohham Rahmani**

**Abstract**

The effects of different levels of barley hydroponic fodder on feedlot performance, carcass characteristics and economic indices of Fars native kids were studied. Twenty-four kids (6-7 months old) in four treatments with six replications were used for this experiment. The lambs were kept in the individual cages with free access to feed and water. Zero (control), 25, 50 and 75 percent of alfalfa were replaced with barley hydroponic fodder in the diet. The length of adaptation period 10 days and fattening period was 80 days. Dry mater intake, average daily gain, feed conversion ratio (FCR), final live weight and economic indices (The average production cost per kg live weight gain of goat, Technical, allocative and economic efficiency) were measured. At the end of fattening period, the lambs were slaughtered and weight of hot and cold carcasses, tail fat, visceral fat, pelvic fat, kidney, kidney fat, heart, heart fat and lungs were measured. Average daily gain (ADG) and final live weight in 25 percent barley hydroponic fodder treatment were significantly higher than control and other treatments. Dry mater intake in kids fed with diet containing 50 and 75 percent barley hydroponic fodder was lower than control and 25 percent barley hydroponic fodder. The highest feed conversion ratio was observed in control group and had significantly difference whit other groups. However, FCR was similar among the groups that received barley hydroponic fodder. Other characteristics were not significantly affected by barley hydroponic fodder. The highest efficiency was observed in 25 percent barley hydroponic fodder treatment. The average technical efficiency was similar among experimental treatments. Allocative efficiency in control was significantly lower than other treatments. Economic efficiency in 50 and 75 Percent replacement of hydroponic fodder were significantly higher than control and 25 Percent. The results showed that the use of hydroponic barley fodder in feedlot kid's ration was useful.

**Keywords:** Barley hydroponic, Economic indices, performance, Native kids.