

## **ABSTRACT**

MSc Thesis

### **THE EFFECTS OF THE ZINC FERTILIZATION ON THE YIELD AND QUALITY OF SOME WINTER LEGUME**

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This research was aimed to find out the effects of different doses of zinc (0.75, 1.50, 3.00 kg da<sup>-1</sup>) on morphologic characteristics, nutrient contents in the leaf and whole crop and some quality parameters of the winter legume crops (common vetch, narbon vetch, field pea, persian clover ) This study was conducted in the Faculty of Agriculture in Adnan Menderes University under field conditions.

Zinc applications provided significant level of improvements in the morphologic characteristics like plant height, fresh and dry forage yields. Among the winter legume crops, the maximum plant high, fresh and dry forage yields was held on the common vetch. The effects of Zn applications on the number of side bough and dry matter percentage were seen as inconsiderable. It was seen that in the whole crop analyses the Zn application caused a rising in N and Cu while there was a decreasing in P and Ca. The other nutrient elements (K, Mg and Na) was not effected. It was founded that the highest qualified winter legume crop was field pea according to different quality parameters in our research. As an average, the highest relative feed value was founded in field pea (% 315), and followed persian clover (% 229), narbon vetch (% 139) and common vetch (% 135).

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#### **Key words**

Common vetch, narbon vetch, field pea, persian clover, nutrients, relative feed value.