

## **ABSTRACT**

### **THE EFFECT OF CORN-SOYBEAN INTERCROPPING ON SOME AGRONOMIC CHARACTERISTICS**

İbrahim SABANCI

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Supervisor: Prof. Dr. Aydın ÜNAY

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Field trials were conducted at experimental field of University of Adnan Menderes, Faculty of Agriculture during 2012 and 2013 to determine the possibility of intercropping maize and soybean. The experiments were arrangement at Randomized Complete Block Design with two factors and 3 replicates. Vitormone application and cropping systems as sole maize and soybean, 1 maize + 1 soybean, 1 maize + 2 soybeans and 1 maize + 2 soybeans (in alternative space) were evaluated.

In research, the differences between cropping systems were significant for plant height, thousand kernel weight, leaf chlorophyll content, leaf area index, yield in maize and soybean; first ear height, ear diameter and grain number per ear in maize; first pod height, pod lenght, and grain number per pod in soybean. The differences between Vitormone applications were significant especially for observed characteristics in soybean. From the results of this study, it was concluded that 1 maize + 2 soybean cropping system (1.20-1.26) was the most suitable for intercropping but 1 maize + 2 soybeans in additive sown (at the same row) given unsuitable values (0.69-0.78) when observed characters and the LER values (more than unity 1) were evaluated.

**Keywords:** Corn, soybean, intercropping, the yield of grain, the LER.