



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Effects of Inoculation with Rhizobium on Seed Yield and Yield Components of Common Vetch (*Vicia sativa* L.)

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Abstract: The effects of inoculation with *Rhizobium leguminosarum* on seed yield and yield components of common vetch (*Vicia sativa* L.) were evaluated under Black Sea Coastal Region conditions, Turkey, in the 2001-2002 and 2002-2003 growing seasons using common vetch cultivars Kubilay, Ürem, Karaelçi, Uludağ, Emir, Çubuk and Nilüfer. The experiment was established as a split block design with 3 replications. Inoculation increased seed yield and all yield components of common vetch cultivars. It was observed that inoculated common vetch cultivars gave higher biological yield (8.5%), seed yield (7.6%), straw yield (10.4%), pod length (25.5%), number of seed per pod (16.2%), number of pods (28.4%), main stem length (3.5%) and thousand seed weight (5.5%) compared to non-inoculated cultivars. While the highest biological and straw yields were determined in the inoculated cultivar Kara elçi, the highest seed yield was obtained from the inoculated cultivars Emir. Among the inoculated cultivars Emir had the greatest number of pods, thousand seed weight and the shortest maturity day, and Uludağ showed the highest main stem length and pod length. The highest number of seed per pod was found in the inoculated cultivar Kubilay. Based on these results, the cultivars Emir, Uludağ and Kubilay can be recommended for similar ecological conditions because of their better seed yield and yield components.

Key Words: Common vetch, *Vicia sativa* L., inoculation, seed yield

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