This study was carried out field experiments in SDU Agricultural Research and Application Center and germination experimentals in laboratories of Field Crops Department in 2016/2017. The aim of study is to determine the effects of some essential oils on the germination and some seedling growth characteristics in dry bean varieties. It was carried out field experiments according to completely randomized blocks design split plot; laboratory experiments according to completely randomized plots split plot design with 3 repetitions. It was used Şeker, Sarıkız and Burgan of bean varieties as seed material; commercial essential oil preparations derived from fennel, garlic and thyme plants as essential oils in the study. When the aphids were started to show on plants in the field experiments, the solutions prepared with origanum (Origanum onites) (3 ppm), fennel (Foeniculum vulgare) (10 ppm) and garlic (Allium sativum) (10 ppm) were sprayed to the green plants. Also, insecticide containing Deltamethrin (at 50 ml / da dose) was used as a chemical control. In the laboratory experiments, germination tests were carried out seeds of the bean varieties with the solutions containing the thyme (0, 1, 2 and 3 ppm), fennel and garlic (0, 2, 4, 6, 8 and 10 ppm) essential oils. The germination rate, mean germination times, seedling and root lengths and seedling and root weights were examined in seeds obtained from field experiments (only pure water was applied) and laboratory tests. While the application of thyme oil in seeds obtained from field experiments is negative in relation to germination and seedling growth characteristics in Sarıkız and Şeker varieties; it effects the positive in the Burgan variety. It is determined that garlic and fennel oils showed a positive increase in the germination and seedling growth characteristics of the varieties except Sarıkız variety. In laboratory tests, doses of 1 and 2 ppm of thyme oil and doses of 2, 4 and 6 ppm of garlic oil were found having positive effects on the examined properties in all bean varieties. All doses of fennel oil caused reduced on germination and seedling growth.