

The Bio-herbicidal Effects of Daphne (*Laurus nobilis* L.) and Some of Its Important Components on the Germination of Some Weeds and Agronomic Crops.

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A laboratory study was conducted to determine the bio-herbicidal potential effects of three volatile oils, Daphne (*Laurus nobilis* L.) and the most important compounds of Daphne, cineol and α -pinen. Five concentrations (control, 5, 10, 15, 20 ppm) of these compounds were used for four weeds [amaranth (*Amaranthus retroflexus* L.), wild licorice (*Glycyrrhiza glabra* L.), curled dock (*Rumex crispus* L.), and cutleaf ground-cherry (*Physalis angulata* L.)] and for three agronomic crops (Wheat, Corn, Cotton). All three compounds inhibited the germinations of all four weeds with concentrations increase. When they were used for the agronomic crops, two of three compounds (daphne and cineol) showed increasing bio-herbicidal effect with the increasing concentrations. Whereas, there was no effect of α -pinen in all four concentrations in corn and wheat.