

Role of an indole alkaloid in the resistance of barley seedlings to aphids

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The content of the simple indole alkaloid gramine in barley leaves decreased with age. Conversely, susceptibility to aphids increased in older plants. Population growth rate of the greenbug *Schizaphis graminum* correlated with gramine content of leaves of several barley cultivars. Gramine decreased rate of feeding, survival and reproductive index of aphids feeding on artificial diets at concentrations similar to those found in plant leaves. Thus, it is suggested that gramine plays a role in the resistance of barley seedlings to *S. graminum*. Benzyl alcohol, a previously reported insect resistance factor from barley, was absent from all barley cultivars analysed. © 1985.