
Allelopathic Response of *Asphodelus tenuifolius* Cav. on the Early Vegetative Growth of *Zea mays* L.

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Abstract

Allelopathy is a mechanism in which allelo-chemicals produced by plants may inhibit or enhance the associated plant growth. Plants have a defense system to produce allelochemicals and localize them to the front line i.e. on the leaf surface, external stem and roots, buds etc. In the present investigation we were observed that the shoot and seed extracts of *Asphodelus tenuifolius* Cav. have shown the inhibitory effect on germination of the test crops, *Zea mays*. Further, different concentrations of *Asphodelus tenuifolius* Cav. shoot and seed extracts have caused inhibitory effect on germination and growth behavior of *Zea mays* L. seedlings significantly. Maximum germination and growth occurred in control, whereas, at lower concentrations significant growth in shoot length and root length observed. Similarly the fresh weight and dry weight is also reduced in *Asphodelus tenuifolius* Cav. extracts. Therefore we conclude that *Asphodelus tenuifolius* shows significant allelopathic effect on seedling growth of *Zea mays*.

Keywords: Allelopathy, *Asphodelus tenuifolius*, plant water extract, maize growth

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