

Abstract

To evaluate the effect of chitosan on plant withanolides compounds in *Withania* (*Withania coagulans*), a split plot experiment in a randomized complete block design with three replications in Zabol University Biotech Center (Biocenter) was conducted as a the pot. The samples were taken three times at 1, 3 and 7 days after Foliar chitosan as the main plot and various levels 0, 0.5, 1 and 2 gr/L⁻¹ were considered as sub plots. The results showed different levels of chitosan had significant effect on plant height, leaf area index, Espd, Chlorophyll b, Proline was obtained. The activity of the antioxidant enzymes Katalase, Peroxidase, guaiacol Peroxidase Ascorbate Withania leaf soluble chitosan with increasing levels of consumption increased. Chitosan treatment also had no significant effect on the amount of chlorophyll a and total chlorophyll. The delay in harvest time and different levels of chitosan on plant withanolides compounds in *Withania* such WithaferinA, WithanolideA, Withastramonolide, Withanone, Glucowithanolid, Withanoside VI, Coagluin, Withanoside X and Withanoside VIII had a significant impact. In sum, the results of this test can be expressed as a mechanism for increasing the yield of bio Elicitors *Withania* professionalism.

Key words: Chitosan ,*Withania*. Withanolides Compounds



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Title

**The effect of chitosan on plant withanolides compounds in
Withania coagulans (Stocks) Dunal**

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