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INDUCTION OF BIOCHEMICAL DEFENSE MECHANISMS IN COMMON BEAN (*Phaseolus vulgaris* L.) INFECTED WITH *Sclerotinia sclerotiorum*. B.B. RISSATO<sup>1</sup>; J.R. STANGARLIN<sup>2</sup>; O.D.F. DILDEY<sup>2</sup>; C.R. da SILVA<sup>1</sup>; E.D.V. GONÇALVES-TREVISOLI<sup>2</sup>; S. COLTRORONCATO<sup>3</sup>; T.F.B. WEBLER<sup>4</sup>; O.J. KUHN<sup>2</sup>; K.R.F. SCHWAN-ESTRADA. State University of Maringá<sup>1</sup>, Maringá, BR. <sup>2</sup>Western Paraná State University, Marechal Cândido Rondon, BR. <sup>3</sup>Dynamic University of the Falls, Medianeira, BR. <sup>4</sup>Federal University of Paraná, Palotina, BR  
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Common bean cultivation is the main source of income for a considerable number of farmers, besides being one of the most important cultures for the world economy. However, the diversity of diseases that affect the culture leads to the need of integrate control methods, which include the induced resistance of plants. Aiming to contribute to the developing of alternative methods for the control of plant diseases, was evaluated the induction of biochemical defense mechanisms in common bean infected with *Sclerotinia sclerotiorum*. As treatments were used the homeopathic solutions Phosphorus 12CH, Phosphorus 48CH, *Calcarea carbonica* 13CH and *Calcarea carbonica* 48CH, being the hydroalcoholic solution 30% (ethanol) the control treatment. The experimental design used was randomized blocks with five replications and the comparison between the averages performed through the Tukey test at 5% of probability. The variables evaluated were the phytoalexin phaseolin formation and the activity of the enzymes peroxidase and catalase. The homeopathic solutions did not present phytoalexin-inducing potential in any of the tested dynamizations. In plants treated with *Phosphorus* 48CH, *Calcarea carbonica* 12CH homeopathic solutions and *Calcarea carbonica* 48CH, the activity of peroxidase was 103%, 90% and 87%, respectively, higher than the control. For catalase, *Phosphorus* 12CH, *Phosphorus* 48CH, *Calcarea carbonica* 12CH and *Calcarea carbonica* 48CH, showed satisfactory results, increasing the enzyme activity in 840%, 810%, 932% and 1021%, respectively, when compared to control. This results indicates the potential of these homeopathic solutions in activating defense mechanisms in bean plants infected with *Sclerotinia sclerotiorum*.

**Keywords:** Alternative control, *Calcarea carbonica*, *Phosphorus*, Resistance induction.