

PROTEOMICAL ANALYSIS OF *Beauveria bassiana* SECRETION IN THE PRESENCE OF BRUCHID *Callosobruchus maculatus*.

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Vigna unguiculata is an important subsistence crop for Africa and Latin America. Unfortunately, stored cowpea seeds are often attacked by cowpea weevil *Callosobruchus maculatus*, causing severe economical losses. Diverse studies have been carried out in order to decrease the pest damage. In last years, the use of entomopathogenic fungi such as *Beauveria bassiana* became an important alternative in biological control. These species secrete different enzymes that can be used as defense molecules against insect-pests. In this report, 2D protein maps from *B. bassiana*, synthesized in response to *C. maculatus* cuticle were elucidated. *B. bassiana* conidia were grown in minimal media (0.2% KH₂PO₄, 0.03% MgSO₄, 1.4% (NH₄)₂SO₄ and FeCl₃ trace) containing 0.5% *C. maculatus* cuticle. Protein patterns of induced and non-induced secretions showed clear differences in SDS-PAGE. Furthermore, 800 µg of proteins of both fungi secretions were used for each 2D electrophoresis. Extracts were applied on non linear strips of 13 cm, with pH range of 3-11. Proteins observed in 2D electrophoresis ranging pIs between 3 to 8, been observed 102 different spots, being 59 found at induced and 43 at non-induced 2DE gels. Main protein spots were trypsinized and identified by MS/MS techniques. Among them; it was possible to identify proteinases, acetyltransferases, reductase, hydrolases, esterases and lipases. In a near future these proteins can be utilized for control *C. maculatus* since they could act in insect cuticle degradation.

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Key words: *Vigna unguiculata*, *Callosobruchus maculatus*, *Beauveria bassiana*, proteomic analysis.