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**POSTER PRESENTATIONS**

**QUANTITATIVE AND QUALITATIVE ANALYSIS OF THE PRODUCTION OF AGMNPV POLYHEDRA THROUGH SERIAL PASSAGING IN SF9 INSECT CELLS**

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Baculoviruses and Sf9 cells have a great interest in biotechnology due to the possibility of gene expression and the use as biopesticides. They can replace the chemical ones because of their specificity and safeness for the environment and public health. A drawback for the use of AgMNPV as biopesticide is the scaling up of production and the loss of polyhedra virulence after passages in cells. We have studied parameters for optimizing the cell culture conditions and viral infection for the production of virulent polyhedra in shaker bottles and bioreactors. We have tested the cell culture volume, agitation, dissolved oxygen (DO), multiplicity of infection (moi), nutrients consumption, and metabolites production. The data show that good quantitative results of polyhedra production were obtained with a medium volume/bottle volume ratio of 1/5, 29C, 100 rpm, moi of 1 performed with a cell density of 10E6 cells/ml in a medium containing enough glucose and glutamine. For qualitative control of polyhedra virulence, hemolymph from AgMNPV infected *anticrosia gemmatalis* was used as starting material for passages in Sf9 cells and the polyhedra production was tested for virulence in bioassays. Viral passages in Sf9 cell cultures led to a loss of virulence among the polyhedra with an increase in the DL50. Polyhedra from the 4th passage were already not virulent enough to induce mortality indicating the synthesis of defective polyhedra. Samples are subject of structural studies in view of identifying changes during the passages and establishing conditions for biopesticide production in cultures. Supported by: FAPESP(00/02720-0 e 02/06924-5), CNPq, CAPES, Fundação Butantan.