EVALUATION REPORT ON CONTRACT PROJECT TITLED: "*A MOLECULAR STUDY OF A SOUTH AFRICAN ISOLATE OF SOYBEAN MOSAIC VIRUS* (PROF. H. HUISMANS - UP)"

1. EVALUATION OF PROJECT SUBSECTION TITLED "*DEVELOPMENT OF ELISA AGAINST TRYPSIN TREATED SOYBEAN MOSAIC VIRUS*"

1.1.Summary Of Results

- The authors have used trypsin treatment to remove the hydrophilic surface-exposed N-terminal domain of a potyvirus (86/20). In the potyvirus group, there is considerable variation in the N-terminal region of the coat protein (CP), but remarkable conservation in the core region of the CP. They then used the purified virus (devoid of the N-terminal region) to raise antibodies. The rationale apparently was to raise antibodies with a wide spectrum that would exhibit a wide spectrum of group-specific and strain non-specific recognition in the potyvirus group. Theoretically such antibodies could have practical diagnostic application due to their wide spectrum specificity. However, the authors failed to attain this objective and found that the antiserum reacted very poorly in comparison to antiserum prepared against whole virus. They also found that the serum did not exhibit group specificity as anticipated.

2. EVALUATION OF PROJECT SUBSECTION TITLED: *"POLIMERASE KETTINGREAKSIE AMPLIFIKASIE, KLONERING EN VOLGORDEBEPALING VAN DIE KAPSIED - GEEN VAN 'N ONGEWONE ISOLAAT VAN SOJABOON MOSAIEKVIRUS (SbMV)"*

2.1. Summary Of Results

- This part of the project describes the cDNA cloning of a ca 1kb 3'-terminal fragment of a putative strain of SbMV (termed SbMV 87/14). Attempted sequence analysis of this clone was unsuccessful due to CG compressions assumed to result from the homopolymer tailing used in cloning strategy.

- Subsequently, a portion of the CP gene was amplified by using degenerate primers aimed at conserved areas in the CP gene (obtained from Prof. EP Rybicki) and cloned. Sequence analysis of this 750 kb clone was used to infer that the virus belonged in the SbMV subgroup of potyviruses.