

## Table of Contents

Introduction . . . . .	1
Literature Review . . . . .	4
General description of the virus . . . . .	4
Host traits affected by PMV infection . . . . .	6
Strains of peanut mottle virus . . . . .	7
Inheritance of resistance to PMV in soybean . . . . .	7
Reaction of soybean to other viruses . . . . .	8
Materials and Methods . . . . .	9
Virus maintenance and inoculation procedures . . . . .	9
Tissue immunoblot assay . . . . .	10
Inheritance of resistance and tests of allelism. . . . .	11
Growth of F <sub>1</sub> and F <sub>2</sub> plants. . . . .	12
Collection and analysis of data . . . . .	13
Results and Discussion . . . . .	14
Allelism test for the resistance gene in CNS . . . . .	14
Inheritance of resistance in PI 486355 . . . . .	15
Tests of allelism of PI 486355 resistance genes . . . . .	16
Inheritance of resistance in PI 398593 . . . . .	18
Genetics of resistance of six soybean cultivars . . . . .	22
Summary . . . . .	25
References . . . . .	35