Contents

Introduction	Page
Review of the literature	. 1
Materials and methods	3
Results: -	21
Part I- Isolation and Identification of The Virus	•
1. Symptomology	38
2. Host range	40
3. Transmission of virus	40
4. Electron Microscopy	54
5. Physical properties of virus	55
5.1 Thermal inactivation point	56
5.2 Dilution end point	
5.3 Longevity in vitro	58
Part II-Histopathology of virus infected leaves showing	61
necrotic local lesions	÷
Discussion	63
Summary	77
References	86
Arabic summary	89
	100