

LIST OF TABLES

	Page No.
Table 1.1. Important bacterial wilt diseases	5
Table 1.2. Host range and geographical distribution of the pathogenic Races and biovars of <i>Ralstonia solanacearum</i>	11
Table 1.3. Major diseases of Solanaceous vegetable crops	14
Table 1.4. Statement showing the data on the district-wise area and production of the tomato crop in Karnataka during 2000-01 and 2002-03	17
Table 1.5. Statement showing the data on the district-wise area and production of the eggplant crop in Karnataka during 2000-01 and 2002-03	20
Table 1.6. Statement showing the data on the district-wise area and production of the chilli crop in Karnataka state, during the year 2000-01 and 2002-03	22
Table 1.7. Statement showing the data on the district-wise area and production of the potato crop in Karnataka during 2000-01 and 2002-2003	25
Table 3.1. Features of the study area	67
Table 3.2. Disease incidence of tomato during kharif, rabi and summer 2005-06	73
Table 3.3. Disease incidence of tomato during kharif, rabi and summer 2006-07	74
Table 3.4. Disease incidence of tomato during kharif, rabi and summer 2007-08	75
Table 3.5. Disease incidence of eggplant during kharif, rabi and summer 2005-06	76
Table 3.6. Disease incidence of eggplant during kharif, rabi and summer 2006-07	77

Table 3.7.	Disease incidence of eggplant during kharif, rabi and summer 2007-08	78
Table 3.8.	Disease incidence of chilli during kharif, rabi and summer 2005-06	79
Table 3.9.	Disease incidence of chilli during kharif, rabi and summer 2006-07	80
Table 3.10.	Disease incidence of chilli during kharif, rabi and summer 2007-08	81
Table 3.11.	Disease incidence of potato during kharif and rabi 2006-07	82
Table 3.12.	Disease incidence of potato during kharif and rabi 2007-08	82
Table 3.13.	Collection of tomato seed samples during 2005-07	83
Table 3.14.	Collection of eggplant seed samples during 2005-07	83
Table 3.15.	Collection of chilli seed samples during 2005-07	84
Table 3.16.	Collection of potato samples during 2006-08	84
Table 3.17.	Climatic conditions at different districts of Karnataka during kharif-2005	85
Table 3.18.	Climatic conditions at different districts of Karnataka during rabi-2005	86
Table 3.19.	Climatic conditions at different districts of Karnataka during kharif-2006	87
Table 3.20.	Climatic conditions at different districts of Karnataka during rabi-2006	88
Table 3.21.	Climatic conditions at different districts of Karnataka during kharif-2007	89
Table 3.22.	Climatic conditions at different districts of Karnataka during rabi-2007	90
Table 3.23.	Race determination in <i>Ralstonia solanacearum</i> (Molterer, 1998)	103

Table 3.24.	Biovar determination in <i>Ralstonia solanacearum</i> (Hayward, 1964; Goszczyńska <i>et al.</i> , 2000)	104
Table 4.1.	Colony counts of <i>R. solanacearum</i> on Kelman's TZCA from the infected samples of tomato by liquid assay method	127
Table 4.2.	Colony counts of <i>R. solanacearum</i> on Kelman's TZCA from the infected samples of eggplant by liquid assay method	128
Table 4.3.	Colony counts of <i>R. solanacearum</i> on Kelman's TZCA from the infected samples of chilli by liquid assay method	128
Table 4.4.	Colony counts of <i>R. solanacearum</i> on Kelman's TZCA from the infected samples of potato by liquid assay method	128
Table 4.5.	Colony counts of <i>R. solanacearum</i> on Kelman's TZCA from seed samples of solanaceous vegetable crops by macerated seed liquid assay method	129
Table 4.6.	Bacterial population density (colonies) from the infected solanaceous samples by direct plating of macerated seeds	129
Table 4.7.	Colony characters of <i>R. solanacearum</i> on different media	131
Table 4.8.	Detection and isolation of the <i>R. solanacearum</i> from tomato on Kelman's TZCA by direct plating and liquid assay methods and percent of infection	139
Table 4.9.	Detection and isolation of the <i>R. solanacearum</i> from eggplant on Kelman's TZCA by direct plating and liquid assay methods and percent of infection	145
Table 4.10.	Detection and isolation of the <i>R. solanacearum</i> from chilli on Kelman's TZCA by direct plating and liquid assay methods and percent of infection	150
Table 4.11.	Detection and isolation of the <i>R. solanacearum</i> from potato on Kelman's TZCA by direct plating and liquid assay methods and percent of infection	156
Table 4.12.	Disease incidence and infected tomato seed samples during kharif, rabi and summer 2005-06 and 2006-07	158

Table 4.13.	Disease incidence and infected eggplant seed samples during kharif, rabi and summer 2005-06 and 2006-07	158
Table 4.14.	Disease incidence and infected chilli seed samples during kharif, rabi and summer 2005-06 and 2006-07	159
Table 4.15.	Disease incidence and infected potato samples during kharif and rabi 2006-07 to 2007-08	159
Table 4.16.	Morphological, cultural, biochemical and pathological characteristics of the solanaceous isolates and biovar characterization of <i>Ralstonia solanacearum</i>	167
Table 4.17.	Characterization for race identification of the solanaceous isolates of <i>Ralstonia solanacearum</i> (EPPO, 2000; Rajeshwari, 2001; Molterer, 1998)	168
Table 4.18.	Host specificity, pathogen interaction based on pathogenicity and cross host infectivity in Tomato isolates of <i>R. solanacearum</i>	179
Table 4.19.	Host specificity, pathogen interaction based on pathogenicity and cross host infectivity in eggplant isolates of <i>R. solanacearum</i>	185
Table 4.20.	Host specificity, pathogen interaction based on pathogenicity and cross host infectivity in chilli isolates of <i>R. solanacearum</i>	189
Table 4.21.	Host specificity, pathogen interaction based on pathogenicity and cross host infectivity in potato isolates of <i>R. solanacearum</i>	195
Table 4.22.	Virulence and disease reaction of the solanaceous isolates of <i>R. solanacearum</i> by cross-host inoculation	197
