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Giuseppe Parrella, Patrick Gognalons, Kahsay Gebre Selassie, C. Vovlas, Georges Marchoux. An update of the host range of tomato spotted wilt virus. *Journal of Plant Pathology*, 2003, 85 (4), pp.227-264. hal-02682821

HAL Id: hal-02682821

<https://hal.inrae.fr/hal-02682821v1>

Submitted on 1 Jun 2020

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INVITED REVIEW

AN UPDATE OF THE HOST RANGE OF *TOMATO SPOTTED WILT VIRUS*G. Parrella¹, P. Gognalons², K. Gebre-Selassie², C. Vovlas³ and G. Marchoux²¹ Istituto per la Protezione delle Piante del CNR, Sezione di Portici, Via Università 133, 80055 Portici (NA), Italy² Institute National de la Recherche Agronomique, Station de Pathologie Végétale, BP 94 - 84143 Montfavet Cedex, France³ Dipartimento di Protezione delle Piante e Microbiologia Applicata, Università degli Studi and Istituto di Virologia Vegetale del CNR, Sezione di Bari, Via G. Amendola 165/A, 70126 Bari, Italy

SUMMARY

Among plant viruses, *Tomato spotted wilt virus* (TSWV) is considered as the most widespread and to have the largest host-range. This virus is responsible for numerous epidemics in different regions of the world, mainly in horticultural and floral crops, which are often destructive and cause heavy economic losses. The highly polyphagous nature, the efficiency of virus transmission and the biological activity of its vectors, the rapidity with which new variants arise, and difficulties in the control of the vectors, make TSWV one of the most feared plant viruses by growers of agricultural crops. Preventive and integrated cultural practices such as the eradication of weed hosts able to serve as virus reservoirs, combined with vector management strategies, play a crucial role in the control of the virus. Thus, the availability of an up-to-date list of TSWV host plants is a potentially useful reference for researchers and farmers. The current list of TSWV hosts consists of 1090 plants species belonging in 15 families of monocotyledonous plants, 69 families of dicotyledonous plants and one family of pteridophytes.

Key words: *Tomato spotted wilt virus*, host range, *Thrips* spp., weeds, virus control, virus disease

INTRODUCTION

First described in 1915 in Australia by Brittlebank (1919), *Tomato spotted wilt virus* (TSWV) is the type species of the genus *Tospovirus* in the family *Bunyaviridae*, a large family of RNA viruses most of which infect vertebrate and/or invertebrate hosts. TSWV is one of the most destructive plant viruses. It is estimated that worldwide it causes losses, mainly of commercial vegetable crops, of around one billion dollars annually (Scott, 2000). The economic importance of TSWV, in addition to its biological and molecular features, has made it one of the most extensively studied plant viruses.

TSWV virions are 80-120 nm diameter, spherical, enveloped, and studded with surface projections composed of two glycoproteins, G1 and G2. Virion composition is

5% nucleic acid (RNA), 70% protein, 5% carbohydrate, and 20% lipid. The genome consists of three negative or ambisense ssRNA species designated as S (2.9 kb), M (4.8 kb) and L (8.9 kb). The RNAs have partially complementary terminal sequences that allow the RNAs to adopt a pseudocircular or panhandle conformation (Elliott *et al.*, 2000). The largest RNA (L RNA) is negative sense and monocistronic; the other two RNAs (S and M RNAs) encode two proteins in an ambisense arrangement. Thus, the viral genome codes for five proteins in total. In particular: (i) RNA polymerase (330-kDa) is encoded by L RNA; (ii) protein NS_M, a 34-kDa protein involved in cell-to-cell movement of the virus, is encoded by virion sense M RNA; (iii) glycoproteins G1 and G2, that form the projections on the virus particle surface and result from processing of a 127-kDa protein, are coded for by the complementary sense M RNA; (iv) protein NS_S, a 52 kDa protein with unknown function, is encoded by the virion sense S RNA; (v) protein N, the 29 kDa structural protein that coats the genomic RNA fragment giving rise to the nucleocapsids is encoded by the complementary sense S RNA (Hull, 2002). These are enclosed in a host-derived membrane bilayer, along with an estimated 10-20 copies of the L protein, the putative RNA-dependent RNA polymerase, encoded by RNA L (Hull, 2002).

In nature, TSWV is transmitted by at least eight species of thrips (Mound, 1996; Ullman *et al.*, 1997; Groves *et al.*, 2002), in a circulative and propagative manner (Wijkamp *et al.*, 1993; Ullman *et al.*, 1993). Recently, factors involved in the determination of vector competence have been identified in *Frankliniella occidentalis* and *Thrips tabaci* (Nagata *et al.*, 2002).

TSWV is readily transmitted mechanically from sap of naturally infected plants. *Petunia hybrida* is one of the most useful diagnostic species (Allen and Matteoni, 1991) because of the rapidity with which typical brown local lesion develop, usually within 2-4 days from inoculation. Manually inoculated *Nicotiana tabacum*, *Nicotiana glutinosa* and *Nicotiana benthamiana* develop large necrotic local lesions followed by systemic mosaic and necrosis, that is sometimes lethal in *N. benthamiana*. *Cucumis sativus* also is a reliable assay host as it develops chlorotic local lesions on cotyledons 4-5 days after inoculation.

DAS-ELISA using polyclonal antibodies to the whole virion is commonly used for detecting TSWV isolates, both in plant extracts (Gonzalves and Trujillo, 1986) and thrips (Cho *et al.*, 1998; Bandla *et al.*, 1994). Differentia-

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tion among virus isolates by serological methods is possible using antisera raised to different viral antigens, such as the N and G structural proteins (de Avila *et al.*, 1990; Law and Moyer, 1990; Wang and Gonsalves, 1990; Adam *et al.*, 1995). TSWV-specific monoclonal antibodies detect differences among virus isolates (Sherwood *et al.*, 1989; Huguenot *et al.*, 1990; Adam *et al.*, 1991).

TSWV molecular detection has been developed using cDNA probes (Ronco *et al.*, 1989; Rice *et al.*, 1990) and riboprobes (Huguenot *et al.*, 1990), both of which have proved useful for the sanitary certification of plant material (Saldarelli *et al.*, 1996). Several PCR-based methods have been developed for the specific detection of TSWV. The first PCR-based assay was developed by Mumford *et al.* (1994). Immunocapture PCR and RT-PCR were developed by Nolasco *et al.* (1993) and Weekes *et al.* (1996), respectively. A reliable and rapid detection of TSWV from a single infected thrip by RT-PCR has recently been reported by Mason *et al.* (2003). A very sensitive protocol for the detection and quantification of TSWV is the real-time RT-PCR assay based on TaqManTM chemistry, on both "leaf soak" and total RNA extracts from infected plants (Roberts *et al.*, 2000).

TSWV particles can be readily detected by electron microscope observations of leaf dip preparations with or without gold-immunolabelling (Milne, 1993). Ultrathin sectioning of infected tissues, although time-consuming, is a reliable technique for virus identification because of the characteristic intracellular appearance and localization of virions. These accumulate in dilations of the endoplasmic reticulum and mature by budding of the nucleocapsids through the endoplasmic reticulum membrane (Martelli and Russo, 1984).

In general, the two main concomitant factors that make TSWV one of the most destructive and widely distributed plant virus are the highly polyphagous nature of its vectors and the relative lack of host specificity of the virus. Consequently, TSWV has a very large host range and its control remains problematic.

Resistant varieties are useful in minimizing losses, but infections by field resistance-breaking (RB) TSWV isolates have been reported in nominally resistant pepper hybrids (Roggero *et al.*, 1999b, 2002) as well as in resistant tomato hybrids (Aramburu and Marti, 2003). Nevertheless, the genetic status at resistance loci (i.e. heterozygosity *vs* homozygosity) could play an important role in determining the level of resistance. The emergence of RB isolates of

TSWV seems to be correlated with the extensive cultivation of resistant hybrids, as reported for pepper, but it has also been noted that RB isolates tend to survive in weeds (Roggero *et al.*, 2002). The extreme variability of TSWV isolates, coupled with the possibility of the exchange of genetic information through reassortment of genome segments were suggested as the main causes for the apparent readiness of the virus to adapt so as to overcome both natural and pathogen-mediated resistances (Qiu *et al.*, 1998; Qiu and Moyer, 1999).

Different preventive strategies are effective in TSWV management. TSWV-infected hosts in vegetable-growing regions play an important role in the epidemiology of the disease, thus the elimination of weed hosts is the main agronomic practice to control TSWV outbreaks (Marchoux *et al.*, 2000). An up-to-date list of TSWV host species should help in the identification of putative natural virus reservoirs and allow the eradication of potential weed hosts. Best (1968) provided the first list of TSWV hosts, comprising 157 dicotyledonous plant species from 29 families and 6 monocotyledonous plant species from 5 families. Subsequently, many new hosts have been discovered, so that the list has been growing steadily (Cho *et al.*, 1987; Berling, 1991; Sether and De Angelis, 1991; Peters and Golbach, 1998). In the last decade, extensive surveys for new natural and experimental hosts of TSWV have identified a large number of new susceptible species (Gognalons *et al.*, 1996, 1999).

In this paper we present an "update" of TSWV-susceptible plant species, adopting the taxonomic system proposed by Engler and Diels (1936), modified by Bambacioni (1976), according to the International Code for Botanical Nomenclature (Greuter *et al.*, 1994). This list consists of 1090 plant species capable of being locally and/or systematically infected by TSWV. The species are from a single family of the class *Pteropsida* (Division X - *Pteridophyta*, Tab. 1), 69 families of the class *Dicotyledones* (Division XII - *Angiospermae*, Tab. 2) and 15 families of the class *Monocotyledones* (Division XII - *Angiospermae*, Tab. 3). Most of the plants listed as hosts of TSWV belong to the family *Asteraceae* (247 species), *Solanaceae* (172 species) and *Fabaceae* (60 species). In this list, accessions, varieties, cultivars, subspecies, hybrids as well as plants identified only at the genus level (e.g. *Aphelandra* sp.) have been considered as distinct botanical entities. The total number of TSWV-susceptible plant species of each family is reported in parenthesis near each family name.

PTERIDOPHYTA

Table 1. Class Pteropsida

Family	Species	Infection	Reference
<i>Polypodiaceae</i>	<i>Asplenium nidus</i>	-	Adam and Kegler, 1994
(= <i>Pteridaceae</i>) (2)	<i>Platyserum superbum</i>	N	Kaminska and Korbin, 1991

M = experimental transmission and positive in ELISA test; N = natural infections; F = transmitted by *Frankliniella occidentalis*; Ff = transmitted by *Frankliniella fusca*; T = transmitted by *Thrips tabaci*; - = no information given; M* = experimental transmission with development of local lesions; N* = positive bioassay.

ANGIOSPERMAE

Table 2. Class Dicotyledones

Family	Species	Infection	Reference
<i>Acanthaceae</i> (5)	<i>Acanthus mollis</i>	N	Marchoux <i>et al.</i> , 2000
	<i>Aphelandra</i> sp.	N	Louro, 1996
	<i>Aphelandra squarrosa</i>	N	Edwardson and Christie, 1997
	<i>Beloperone guttata</i>	N	Chatzivassiliou <i>et al.</i> , 2000
	<i>Hypoestes talniata</i>	M	Marchoux <i>et al.</i> (unpublished)
<i>Aizoaceae</i> (4)	<i>Mesembryanthemum tricolor</i>	-	Best, 1968
	<i>Mollugo verticillata</i>	N	Groves <i>et al.</i> , 2002
	<i>Tetragonia expansa</i>	N	Rosello <i>et al.</i> , 1994
		-	Edwardson and Christie, 1997
	<i>Tetragonia tetragonoides</i>	-	Adam and Kegler, 1994
<i>Amaranthaceae</i> (16)	<i>Alternanthera sessilis</i>	-	Edwardson and Christie, 1997
	<i>Amaranthus albus</i>	N	Marchoux <i>et al.</i> , 2000
	<i>Amaranthus blitum</i>	N	Jorda <i>et al.</i> , 1995
	<i>Amaranthus caudatus</i>	N	Marchoux <i>et al.</i> , 1991
		F	Stobbs <i>et al.</i> , 1992
	<i>Amaranthus graecizans</i>	-	Best, 1968
	<i>Amaranthus hybridus</i>	N	Cho <i>et al.</i> , 1986
	<i>Amaranthus paniculata</i>	-	Sether and De Angelis, 1991
	<i>Amaranthus powellii</i>	F	Stobbs <i>et al.</i> , 1992
	<i>Amaranthus retroflexus</i>	F	Stobbs <i>et al.</i> , 1992
		N	Grieco <i>et al.</i> , 2000
		N	Marchoux <i>et al.</i> , 2000
	<i>Amaranthus</i> sp.	N	van Os B. <i>et al.</i> , 1993
	<i>Amaranthus spinosus</i>	N	Bond <i>et al.</i> , 1983
		N	Cho <i>et al.</i> , 1989
		F	Stobbs <i>et al.</i> , 2000
	<i>Amaranthus viridis</i>	N	Cho <i>et al.</i> , 1989
	<i>Celosia argentea</i>	-	Adam and Kegler, 1994
	<i>Celosia cristata</i>	-	Adam and Kegler, 1994
		N	Chatzivassiliou <i>et al.</i> , 2000
	N	Marchoux <i>et al.</i> , 2000	
<i>Celosia</i> sp.	-	Edwardson and Christie, 1997	
<i>Gomphrena globosa</i>	M	Allen and Matteoni, 1991	
	F	Pocsai <i>et al.</i> , 1998	
<i>Apiaceae</i> (= <i>Umbelliferae</i>) (15)	<i>Aegopodium podagraria</i>	-	Adam and Kegler, 1994
	<i>Ammi majus</i>	N	Latham and Jones, 1997
	<i>Apium graveolens</i> var. <i>dulce</i>	N	Cho <i>et al.</i> , 1986
		N	Latham and Jones, 1997
	<i>Carum carvi</i>	F	Stobbs <i>et al.</i> , 1992
	<i>Chaerophyllum</i> sp.	N	Chatzivassiliou <i>et al.</i> , 1998
	<i>Chaerophyllum temulentum</i>	N	Chatzivassiliou <i>et al.</i> , 1998
	<i>Conium maculatum</i>	F	Stobbs <i>et al.</i> , 1992
	<i>Coriandrum sativum</i>	-	Best, 1968
		N	Marchoux <i>et al.</i> , 2000

Family	Species	Infection	Reference
	<i>Daucus carota</i>	M	Marchoux <i>et al.</i> , (unpublished)
	<i>Foeniculum vulgare</i>	M	Marchoux <i>et al.</i> , (unpublished)
	<i>Hydrocotyle asiatica</i>	N	Cho <i>et al.</i> , 1987
	<i>Orlaya</i> sp.	N	Chatzivassiliou <i>et al.</i> , 1998
	<i>Petroselinum sativum</i> f. <i>crispum</i>	N	Marchoux <i>et al.</i> , 2000
	<i>Torilis arvensis</i>	N	Lavina <i>et al.</i> , 1996
	<i>Trachymene caerulea</i>	-	Best, 1968
<i>Apocynaceae</i> (7)	<i>Adenium obesum</i>	-	Edwardson and Christie, 1997
	<i>Adenium</i> sp.	N	Verhoeven and Roenhorst, 1994
	<i>Catharanthus roseus</i>	N	Tehrani <i>et al.</i> , 1990;
		F	Stobbs <i>et al.</i> , 1992;
		N	Louro, 1996;
		N	Chatzivassiliou <i>et al.</i> , 2000
		N	Marchoux <i>et al.</i> , 2000
	<i>Nerium oleander</i>	N	Louro, 1996
	<i>Pachypodium lamerei</i>	N	Kaminska and Korbin, 1994
	<i>Plumeria acutiplia</i>	N	Rosello <i>et al.</i> , 1994
		-	Edwardson and Christie, 1997
	<i>Vinca minor</i>	N	Louro, 1996
<i>Araliaceae</i> (5)	<i>Fatsybedera lizei</i>	N*	Kaminska and Korbin, 1994
	<i>Fatsia japonica</i>	N	Vaira <i>et al.</i> , 1992a
		N	Kaminska and Korbin, 1994
		N	Verhoeven and Roenhorst, 1994
		N	Chatzivassiliou <i>et al.</i> , 2000
		N	Marchoux <i>et al.</i> , 2000
	<i>Schefflera actinophylla</i> (= <i>Brassaia actinophylla</i>)	N	Kaminska and Korbin, 1991
		N	Tehrani <i>et al.</i> , 1990
	<i>Schefflera arboricola</i>	N	Tehrani <i>et al.</i> , 1990
	<i>Trevesia palmata</i>	N	Edwardson and Christie, 1997
<i>Aristolochiaceae</i> (3)	<i>Aristolochia clematitidis</i>	N	Chatzivassiliou <i>et al.</i> , 1998
	<i>Aristolochia elegans</i>	N	Rosello <i>et al.</i> , 1994
		-	Edwardson and Christie, 1997
	<i>Asarum canadense</i>	F	Stobbs <i>et al.</i> , 1992
<i>Asclepiadaceae</i> (= <i>Apocynaceae</i>) (10)	<i>Asclepias curassavica</i>	N	Salomone <i>et al.</i> , 2003
	<i>Calotropis gigantea</i>	N	Rosello <i>et al.</i> , 1994
	<i>Hoya australis</i>	N	Verhoeven and Roenhorst, 1998
	<i>Hoya bella</i>	N	Verhoeven and Roenhorst, 1998
	<i>Hoya carnosa</i>	N	Kaminska and Korbin, 1994
	<i>Hoya linearis</i>	N	Verhoeven and Roenhorst, 1998
	<i>Hoya</i> sp.	N	Verhoeven and Roenhorst, 1994
	<i>Oxypetalum</i> sp.	N	Verhoeven and Roenhorst, 1998
	<i>Stapelia</i> sp.	N	Edwardson and Christie, 1997

Family	Species	Infection	Reference
	<i>Stephanotis floribunda</i>	N	Tehrani <i>et al.</i> , 1990
		N	Daughtrey, 1996
		N	Edwardson and Christie, 1997
		N	Verhoeven and Roenhorst, 1998
		N	Chatzivassiliou <i>et al.</i> , 2000
		N	Marchoux <i>et al.</i> , 2000
<i>Asteraceae</i> (= <i>Compositae</i>) (247)	<i>Agyranthemum frutescens</i>	N	Marchoux <i>et al.</i> , 2000
	<i>Acantospermum hispidum</i>	-	Edwardson and Christie, 1997
	<i>Achillea millefolium</i>	M	Gognalons <i>et al.</i> , 1996
	<i>Agathaea amelloides</i> (= <i>Felicia amelloides</i>)	N	Vaira <i>et al.</i> , 1992a
	<i>Agathaea bergeriana</i> (= <i>Felicia bergeriana</i>)	N	Vaira <i>et al.</i> , 1992a
	<i>Ageratum conyzoides</i>	M	Marchoux <i>et al.</i> (unpublished)
	<i>Ageratum houstonianum</i>	N	Tehrani <i>et al.</i> , 1990
		N	Router and Gitaitis, 1993
		N	Marchoux <i>et al.</i> , 2000
	<i>Ageratum mexicanum</i>	N	Marchoux <i>et al.</i> , 2000
	<i>Ambrosia artemisiifolia</i>	F	Stobbs <i>et al.</i> , 1992
	<i>Ambrosia psilostachyna</i>	F	Stobbs <i>et al.</i> , 1992
	<i>Ambrosia trifida</i>	F	Stobbs <i>et al.</i> , 1992
	<i>Antennaria neglecta</i>	F	Stobbs <i>et al.</i> , 1992
	<i>Antennaria rosea</i>	M	Marchoux <i>et al.</i> (unpublished)
	<i>Anthemis arvensis</i>	M	Gognalons <i>et al.</i> , 1996
		N	Grieco <i>et al.</i> , 2000
	<i>Anthemis tinctoria</i>	N	Chatzivassiliou <i>et al.</i> , 1998
	<i>Anthemis</i> sp.	N	Marchoux <i>et al.</i> , 2000
	<i>Arctium lappa</i>	N	Cho <i>et al.</i> , 1986
		F	Stobbs <i>et al.</i> , 1992
		F	Bautista <i>et al.</i> , 1995
	<i>Arctium minus</i>	F	Stobbs <i>et al.</i> , 1992
		-	Gognalons <i>et al.</i> , 1996
	<i>Arctium tomentosum</i>	M	Marchoux <i>et al.</i> (unpublished)
	<i>Arctotheca calendula</i>	-	Edwardson and Christie, 1997
		N	Latham and Jones, 1997
		N	Wilson, 1998
	<i>Argyranthemum frutescens</i>	N	Verhoeven and Roenhorst, 1998
	<i>Argyranthemum</i> sp.	-	Edwardson and Christie, 1997
	<i>Artemisia dracunculus</i>	-	Adam and Kegler, 1994
		N	Marchoux <i>et al.</i> , 2000
	<i>Artemisia vulgaris</i>	M	Gognalons <i>et al.</i> , 1996
	<i>Aster amellus</i>	N	Verhoeven and Roenhorst, 1998
	<i>Aster chinensis</i>	-	Edwardson and Christie, 1997
	<i>Aster cordifolius</i>	F	Stobbs <i>et al.</i> , 1992
	<i>Aster ericoides</i>	N	Verhoeven and Roenhorst, 1998
	<i>Aster laterifolius</i>	F	Stobbs <i>et al.</i> , 1992
	<i>Aster novae-angliae</i>	F	Stobbs <i>et al.</i> , 1992

Family	Species	Infection	Reference
	<i>Aster novi-belgii</i>	M	Gognalons <i>et al.</i> , 1996
	<i>Aster radula</i>	M	Marchoux <i>et al.</i> (unpublished)
	<i>Aster rotundifolius</i>	N	Marchoux <i>et al.</i> , 2000
	<i>Aster</i> sp.	-	Edwardson and Christie, 1997
	<i>Aster tataricus</i>	M	Marchoux <i>et al.</i> (unpublished)
	<i>Bellis caeruleascens</i>	N	Marchoux <i>et al.</i> , 2000
	<i>Bellis perennis</i>	M	Gognalons <i>et al.</i> , 1996
	<i>Bidens discoidea</i>	-	Sether and De Angelis, 1991
	<i>Bidens pilosa</i>	N	Cho <i>et al.</i> , 1986
		N	Cho <i>et al.</i> , 1989
	<i>Bidens radiata</i>	M	Marchoux <i>et al.</i> (unpublished)
	<i>Bidens</i> sp.	F	Stobbs <i>et al.</i> , 1992
	<i>Bidens vulgata</i>	F	Stobbs <i>et al.</i> , 1992
	<i>Brachycome iberidifolia</i>	N	Bitterlich and MacDonald, 1993
	<i>Cacalia suaveolens</i>	M	Marchoux <i>et al.</i> (unpublished)
	<i>Calendula arvensis</i>	N	Lavina <i>et al.</i> , 1996
		N	Grieco <i>et al.</i> , 2000
	<i>Calendula officinalis</i>	N	Tehrani <i>et al.</i> , 1990
		N	Vaira <i>et al.</i> , 1992b
		N	Latham and Jones, 1997
		N	Marchoux <i>et al.</i> , 2000
	<i>Callistephus chinensis</i>	N	Tehrani <i>et al.</i> , 1990
		N	Marchoux <i>et al.</i> , 1991
		F, T	Lemmetty and Lindqvist, 1993
		N	Marchoux <i>et al.</i> , 2000
	<i>Callistephus</i> sp.	N	Daughtrey, 1996
	<i>Carduus acanthoides</i>	F	Stobbs <i>et al.</i> , 1992
	<i>Carduus crispus</i>	M	Marchoux <i>et al.</i> (unpublished)
	<i>Carduus nutans</i>	N	Chatzivassiliou <i>et al.</i> , 1998
	<i>Carduus pycnocephalus</i>	M	Gognalons <i>et al.</i> , 1996
	<i>Carthamus tinctorius</i>	N	Rosello <i>et al.</i> , 1994
	<i>Centaurea alpestris</i>	M	Marchoux <i>et al.</i> (unpublished)
	<i>Centaurea calcitrapa</i>	M	Gognalons <i>et al.</i> , 1996
	<i>Centaurea cineraria</i>	-	Edwardson and Christie, 1997
	<i>Centaurea cinerea</i>	-	Adam and Kegler, 1994
	<i>Centaurea collina</i>	M	Marchoux <i>et al.</i> (unpublished)
	<i>Centaurea cyanus</i>	N	Sether and De Angelis, 1991
		F	Stobbs <i>et al.</i> , 1992
	<i>Centaurea montana</i>	N	Verhoeven and Roenhorst, 1998
	<i>Centaurea scabiosa</i>	M	Marchoux <i>et al.</i> (unpublished)
	<i>Centaurea</i> sp.	N	Verhoeven and Roenhorst, 1994
	<i>Chamomilla recutita</i>	N	Chatzivassiliou <i>et al.</i> , 1998
	<i>Chamomilla suaveolens</i>	N	Chatzivassiliou <i>et al.</i> , 1998
	<i>Chondrilla juncea</i>	N	Chatzivassiliou <i>et al.</i> , 1998
		M	Marchoux <i>et al.</i> (unpublished)
	<i>Chondrilla</i> sp.	-	Sether and De Angelis, 1991
	<i>Chrysanthemum carinatum</i>	M	Marchoux <i>et al.</i> (unpublished)

Family	Species	Infection	Reference
	<i>Chrysanthemum coronarium</i>	N -	Cho <i>et al.</i> , 1986 Sether and De Angelis, 1991
	<i>Chrysanthemum frutescens</i>	N N	Tehrani <i>et al.</i> , 1990 Verhoeven and Roenhorst, 1994
	<i>Chrysanthemum indicum</i>	N	Edwardson and Christie, 1997
	<i>Chrysanthemum leucanthemum</i>	F N	Stobbs <i>et al.</i> , 1992 Edwardson and Christie, 1997
	<i>Chrysanthemum macrophyllum</i>	M	Marchoux <i>et al.</i> (unpublished)
	<i>Chrysanthemum maximum</i>	-	Sether and De Angelis, 1991
	<i>Chrysanthemum x morifolium</i>	N N N N N N N N	Cho <i>et al.</i> , 1986 Matteoni <i>et al.</i> , 1989 Marchoux <i>et al.</i> , 1991 Hausbeck <i>et al.</i> , 1992 Kaminska and Korbin, 1994 Nagata <i>et al.</i> , 1995 Louro, 1996 Latham and Jones, 1997
	<i>Chrysanthemum x superbum</i>	N	Tehrani <i>et al.</i> , 1990
	<i>Cichorium endivia</i>	N	Verhoeven and Roenhorst, 1994
	<i>Cichorium endivia</i> var. <i>crispa</i>	N	Marchoux <i>et al.</i> , 2000
	<i>Cichorium endivia</i> var. <i>latifolia</i>	N	Marchoux <i>et al.</i> , 2000
	<i>Cichorium intybus</i>	F N N N	Stobbs <i>et al.</i> , 1992 Verhoeven and Roenhorst, 1994 Louro, 1996 Grieco <i>et al.</i> , 2000
	<i>Cineraria cruenta</i> (= <i>Senecio cruentus</i>)	N	Gognalons <i>et al.</i> , 1996
	<i>Cineraria</i> sp.	N	Edwardson and Christie, 1997
	<i>Cirsium acaule</i>	M	Marchoux <i>et al.</i> (unpublished)
	<i>Cirsium arvense</i>	F N N	Stobbs <i>et al.</i> , 1992 Lavina <i>et al.</i> , 1996 Grieco <i>et al.</i> , 2000
	<i>Cirsium japonicum</i>	N	Verhoeven and Roenhorst, 1998
	<i>Cirsium lanceolatum</i>	N	Edwardson and Christie, 1997
	<i>Cirsium oleraceum</i>	M	Marchoux <i>et al.</i> (unpublished)
	<i>Cirsium palustre</i>	N	Van Os <i>et al.</i> , 1993
	<i>Cirsium</i> sp.	N	Verhoeven and Roenhorst, 1994
	<i>Cirsium vulgare</i>	F	Stobbs <i>et al.</i> , 1992
	<i>Conyza bonariensis</i>	N	Cho <i>et al.</i> , 1986
	<i>Conyza canadensis</i>	M, N	Gognalons <i>et al.</i> , 1996
	<i>Coreopsis drummondii</i>	N	Gognalons <i>et al.</i> , 1996
	<i>Coreopsis lanceolata</i>	F	Stobbs <i>et al.</i> , 1992
	<i>Coreopsis maritima</i>	M	Marchoux <i>et al.</i> (unpublished)
	<i>Coreopsis tinctoria</i>	-	Edwardson and Christie, 1997
	<i>Cosmos bipinnatus</i>	F	Stobbs <i>et al.</i> , 1992
	<i>Cosmos sulphureus</i>	M	Marchoux <i>et al.</i> (unpublished)
	<i>Crepis alpestris</i>	M	Marchoux <i>et al.</i> (unpublished)
	<i>Crepis capillaris</i>	- F	Best, 1968 Stobbs <i>et al.</i> , 1992
	<i>Crepis divaricata</i>	-	Best, 1968

Family	Species	Infection	Reference
	<i>Crepis japonica</i>	N	Edwardson and Christie, 1997
	<i>Crepis pulchra</i>	-	Best, 1968
	<i>Crepis pumila</i>	-	Best, 1968
	<i>Crepis rhoeadifolia</i>	-	Best, 1968
	<i>Crepis rubra</i>	M	Marchoux <i>et al.</i> (unpublished)
	<i>Crepis sancta</i>	M	Gognalons <i>et al.</i> , 1996
	<i>Crepis setosa</i>	M	Gognalons <i>et al.</i> , 1996
	<i>Cynara scolymus</i>	N	Vaira <i>et al.</i> , 1992a
		N	Vovlas and Laforzezza, 1994
		N	Latham and Jones, 1997
		N	Marchoux <i>et al.</i> , 2000
	<i>Cynara syriaca</i>	N	Gognalons <i>et al.</i> , 1996
	<i>Dablia arborescens</i>	M	Marchoux <i>et al.</i> (unpublished)
	<i>Dablia hortensis</i>	N	Marchoux <i>et al.</i> , 2000
	<i>Dablia hybrida</i>	N	Marchoux <i>et al.</i> , 1991
		N	Daughtrey, 1996
		-	Edwardson and Christie, 1997
		N	Latham and Jones, 1997
	<i>Dablia pinnata</i> x <i>D.coccinea</i>	-	Sether and De Angelis, 1991
	<i>Dablia</i> sp.	N	Hausbeck <i>et al.</i> , 1992
		N	Edwardson and Christie, 1997
	<i>Dablia variabilis</i>	N	Gognalons <i>et al.</i> , 1996
	<i>Dendranthema grandiflora</i>	N	Kaminska and Korbin, 1991
	<i>Dendranthema indicum</i>	N	Verhoeven and Roenhorst, 1998
	<i>Dimorphoteca sinuata</i>	N	Rosello <i>et al.</i> , 1994
		N	Manoussopoulos <i>et al.</i> , 1999
	<i>Dimorphoteca</i> sp.	N	Marchoux <i>et al.</i> , 2000
	<i>Dracopis amplexicaulis</i>	N	Johnson <i>et al.</i> , 1995
	<i>Emilia javanica</i>	-	Edwardson and Christie, 1997
	<i>Emilia sagittata</i>	-	Edwardson and Christie, 1997
	<i>Emilia sonchifolia</i>	N	Cho <i>et al.</i> , 1986
		N	Gonsalves and Trujillo, 1986
		N	Nagata <i>et al.</i> , 1995
	<i>Emilia</i> sp.	-	Cho <i>et al.</i> , 1987
	<i>Erigeron acer</i>	M	Marchoux <i>et al.</i> , 2003
	<i>Erigeron bonariensis</i>	N	Cho <i>et al.</i> , 1986
		N	Latham and Jones, 1997
	<i>Erigeron canadensis</i>	N	Marchoux <i>et al.</i> , 1991
		F	Stobbs <i>et al.</i> , 1992
		N	Lavina <i>et al.</i> , 1996
		N	Louro, 1996
		N	Grieco <i>et al.</i> , 2000
	<i>Erigeron</i> sp.	N	Van Os <i>et al.</i> , 1993
	<i>Erigeron strigosus</i>	F	Stobbs <i>et al.</i> , 1992
	<i>Erlangea tomentosa</i>	N	Edwardson and Christie, 1997
	<i>Eupatorium cannabinum</i>	M	Gognalons <i>et al.</i> , 1996
	<i>Eupatorium capillifolium</i>	N	Groves <i>et al.</i> , 2002
	<i>Eupatorium maculatum</i>	F	Stobbs <i>et al.</i> , 1992
	<i>Eupatorium rugosum</i>	M	Marchoux <i>et al.</i> (unpublished)

Family	Species	Infection	Reference
	<i>Eupatorium urticifolium</i>	M	Marchoux <i>et al.</i> (unpublished)
	<i>Euryops</i> sp.	N	Verhoeven and Roenhorst, 1998
	<i>Felicia fragilis</i>	M	Marchoux <i>et al.</i> (unpublished)
	<i>Felicia fructicosa</i>	N	Verhoeven and Roenhorst, 1998
	<i>Felicia petiolata</i>	M	Marchoux <i>et al.</i> (unpublished)
	<i>Felicia</i> sp.	N	Vaira <i>et al.</i> , 1992c
		N	Verhoeven and Roenhorst, 1994
		N	Gognalons <i>et al.</i> , 1996
	<i>Flaveria bidentis</i>	N	Edwardson and Christie, 1997
	<i>Gaillardia aristata</i>	N	Cho <i>et al.</i> , 1987
	<i>Gaillardia pulchella</i>	M	Marchoux <i>et al.</i> (unpublished)
	<i>Gaillardia</i> sp.	N	Cho <i>et al.</i> , 1987
		-	Sether and De Angelis, 1991
	<i>Gaillardia x grandiflora</i>	N	Tehrani <i>et al.</i> , 1990
		-	Sether and De Angelis, 1991
	<i>Galinsoga ciliata</i>	N	Cho <i>et al.</i> , 1986;
		F	Stobbs <i>et al.</i> , 1992;
		N	Verhoeven and Roenhorst, 1998
	<i>Galinsoga parviflora</i>	N	Cho <i>et al.</i> , 1987
	<i>Galinsoga quadriradiata</i>	N	Gognalons <i>et al.</i> , 1996
	<i>Gazania</i> sp.	N	Berling, 1991
		N	Ruter and Gitaitis, 1993
		N	Louro, 1996
	<i>Gazania quadriradiata</i>	N	Edwardson and Christie, 1997
	<i>Gazania splendens</i>	N	Marchoux <i>et al.</i> , 2000
	<i>Gerbera hybrida</i>	-	Edwardson and Christie, 1997
		N	Marchoux <i>et al.</i> , 2000
	<i>Gerbera jamesonii</i>	N	Kaminska and Korbin, 1991
			Louro, 1996
	<i>Gerbera</i> sp.	N	Verhoeven and Roenhorst, 1994
	<i>Gnaphalium purpureum</i>	N	Groves <i>et al.</i> , 2002
	<i>Gnaphalium uliginosum</i>	F	Stobbs <i>et al.</i> , 1992
	<i>Gnaphalium undulatum</i>	M	Marchoux <i>et al.</i> (unpublished)
	<i>Gynura aurantiaca</i>	N	Matteoni <i>et al.</i> , 1989
		N	Sether and De Angelis, 1991
	<i>Helianthus annuus</i>	N	Edwardson and Christie, 1997
	<i>Helianthus giganteus</i>	M	Marchoux <i>et al.</i> (unpublished)
	<i>Helianthus orgyalis</i>	M	Marchoux <i>et al.</i> (unpublished)
	<i>Helichrysum bracteatum</i>	N	Louro <i>et al.</i> , 1996
	<i>Helichrysum</i> sp.	N	Marchoux <i>et al.</i> , 2000
	<i>Helipterum mangleesii</i>	-	Cho <i>et al.</i> , 1987
	<i>Helipterum roseum</i>	-	Cho <i>et al.</i> , 1987
	<i>Helminthia echioides</i>	N	Gognalons <i>et al.</i> , 1996
	<i>Inula</i> sp.	N	Van Os <i>et al.</i> , 1993
	<i>Inula viscosa</i>	M	Gognalons <i>et al.</i> , 1996
	<i>Lactuca canadensis</i>	F	Stobbs <i>et al.</i> , 1992
	<i>Lactuca floridana</i>	Ff	Hobbs <i>et al.</i> , 1993

Family	Species	Infection	Reference
	<i>Lactuca perennis</i>	M	Marchoux <i>et al.</i> (unpublished)
	<i>Lactuca saligna</i>	-	Adam and Kegler, 1994
	<i>Lactuca sativa</i>	N	Cho <i>et al.</i> , 1987
		N	Marchoux <i>et al.</i> , 1991
		N	Vaira <i>et al.</i> , 1992b
		N	Nagata <i>et al.</i> , 1995
		N	Louro, 1996
		N	Latham and Jones, 1997
		F	Roca <i>et al.</i> , 1997
	<i>Lactuca sativa</i> var. <i>capitata</i>	N	Cho <i>et al.</i> , 1986
	<i>Lactuca sativa</i> var. <i>crispa</i>	N	Cho <i>et al.</i> , 1986
	<i>Lactuca sativa</i> var. <i>longifolia</i>	N	Cho <i>et al.</i> , 1986
		F	Bautista <i>et al.</i> , 1995
	<i>Lactuca scariola</i>	N	Cho <i>et al.</i> , 1987
		M	Gognalons <i>et al.</i> , 1996
	<i>Lactuca serriola</i> (= <i>Lactuca scariola</i>)	-	Sether and De Angelis, 1991
		F	Stobbs <i>et al.</i> , 1992
		M	Gognalons <i>et al.</i> , 1996
	<i>Lactuca</i> sp.	N	Edwardson and Christie, 1997
	<i>Lactuca virosa</i>	M	Gognalons <i>et al.</i> , 1996
	<i>Lagascea mollis</i>	N	Rosello <i>et al.</i> , 1994
	<i>Lapsana communis</i>	M	Gognalons <i>et al.</i> , 1996
	<i>Layia elegans</i>	N	Cho <i>et al.</i> , 1987
	<i>Ligularia kaempferi</i>	N	Edwardson and Christie, 1997
	<i>Matricaria chamomilla</i>	M	Gognalons <i>et al.</i> , 1996
	<i>Matricaria maritima</i> var. <i>agrestis</i>	F	Stobbs <i>et al.</i> , 1992
		N	Marchoux <i>et al.</i> , 2000
	<i>Matricaria matricarioides</i>	F	Stobbs <i>et al.</i> , 1992
	<i>Matricaria perforata</i>	N	Marchoux <i>et al.</i> , 2000
	<i>Melampodium</i> sp.	N	Marchoux <i>et al.</i> , 2000
	<i>Melilotus parviflora</i>	N	Rosello <i>et al.</i> , 1994
	<i>Onopordum acanthium</i>	N	Gognalons <i>et al.</i> , 1996
	<i>Onopordum illyricum</i>	N	Chatzivassiliou <i>et al.</i> , 1998
	<i>Osteospermum ecklonis</i>	N	Marchoux <i>et al.</i> , 2000
	<i>Osteospermum fruticosum</i>	N	Daughtrey, 1996
	<i>Osteospermum</i> sp.	N	Hausbeck <i>et al.</i> , 1992
	<i>Picris echioides</i>	N	Gognalons <i>et al.</i> , 1996
	<i>Picris spinulosa</i>	M	Gognalons <i>et al.</i> , 1996
	<i>Pterotheca nemausensis</i>	M	Gognalons <i>et al.</i> , 1996
	<i>Pyrrhopappus carolinianus</i>	N	Groves <i>et al.</i> , 2002
	<i>Rudbeckia amplexicaulis</i>	N	Edwardson and Christie, 1997
	<i>Rudbeckia hirta</i>	N	Schuster and Halliwell, 1994
	<i>Rudbeckia laciniata</i>	M	Marchoux <i>et al.</i> (unpublished)
	<i>Rudbeckia nitida</i>	N	Verhoeven and Roenhorst, 1998
	<i>Rudbeckia occidentalis</i>	N	Marchoux <i>et al.</i> , 2000
	<i>Rudbeckia</i> sp.	N	Marchoux <i>et al.</i> , 2000
	<i>Scorsonera laciniata</i>	M	Gognalons <i>et al.</i> , 1996
	<i>Senecio cineraria</i>	N	Marchoux <i>et al.</i> , 2000

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	<i>Senecio cruentus</i>	N	Cho <i>et al.</i> , 1987
	<i>Senecio doria</i>	-	Marchoux <i>et al.</i> (unpublished)
	<i>Senecio erucifolius</i>	M	Gognalons <i>et al.</i> , 1996
	<i>Senecio jacobea</i>	N F	Cho <i>et al.</i> , 1987 Stobbs <i>et al.</i> , 1992
	<i>Senecio paludosus</i>	M	Marchoux <i>et al.</i> (unpublished)
	<i>Senecio sp.</i>	N	Verhoeven and Roenhorst, 1996
	<i>Senecio vulgaris</i>	N F N	Marchoux <i>et al.</i> , 1991 Stobbs <i>et al.</i> , 1992 Latham and Jones, 1997
	<i>Senecio x hybridus</i>	N N -	Cho <i>et al.</i> , 1987 Tehrani <i>et al.</i> , 1990 Sether and De Angelis, 1991
	<i>Sigesbeckia orientalis</i>	N	Latham and Jones, 1997
	<i>Silybum marianum</i>	M	Gognalons <i>et al.</i> , 1996
	<i>Solidago sp.</i>	N N	Hausbeck <i>et al.</i> , 1992 Groves <i>et al.</i> , 2002
	<i>Sonchus arvensis</i>	M	Gognalons <i>et al.</i> , 1996
	<i>Sonchus asper</i>	F Ff N N	Stobbs <i>et al.</i> , 1992 Hobbs <i>et al.</i> , 1993 Johnson <i>et al.</i> , 1995 Latham and Jones 1997
	<i>Sonchus oleraceus</i>	N F N N N	Cho <i>et al.</i> , 1986 Stobbs <i>et al.</i> , 1992 Lavina <i>et al.</i> , 1996 Wilson, 1998 Grieco <i>et al.</i> , 2000
	<i>Sonchus sp.</i>	N	Bond <i>et al.</i> , 1983
	<i>Sonchus tenerrimus</i>	N N N	Rosello <i>et al.</i> , 1994 Jorda <i>et al.</i> , 1995 Lavina <i>et al.</i> , 1996
	<i>Spilantes oleracea</i>	N	Marchoux <i>et al.</i> , 2000
	<i>Spilantes acinella</i>	M	Marchoux <i>et al.</i> (unpublished)
	<i>Tagetes erecta</i>	-	Edwardson and Christie, 1997
	<i>Tagetes minuta</i>	-	Best, 1968
	<i>Tagetes patula</i>	N	Tehrani <i>et al.</i> , 1990
	<i>Tanacetum parthenium</i>	M	Gognalons <i>et al.</i> , 1996
	<i>Taraxacum officinale</i>	F M, N	Stobbs <i>et al.</i> , 1992 Gognalons <i>et al.</i> , 1996
	<i>Taraxacum sp.</i>	N	Bond <i>et al.</i> , 1983
	<i>Tithonia rotundifolia</i>	N	Ruter and Gitaitis, 1993
	<i>Tragopogon porrifolius</i>	N	Dellavalle <i>et al.</i> , 1999
	<i>Tragopogon pratensis</i>	M	Gognalons <i>et al.</i> , 1996
	<i>Troximon sp.</i>	-	Best, 1968
	<i>Tussilago farfara</i>	F	Stobbs <i>et al.</i> , 1992
	<i>Verbesina alternifolia</i>	M	Marchoux <i>et al.</i> (unpublished)
	<i>Verbesina enceloides</i>	N N F	Cho <i>et al.</i> , 1986 Sether and De Angelis, 1991 Bautista <i>et al.</i> , 1995

Family	Species	Infection	Reference
	<i>Verbesina virginica</i>	M	Marchoux <i>et al.</i> (unpublished)
	<i>Xanthium italicum</i>	M	Gognalons <i>et al.</i> , 1996
	<i>Xanthium orientale</i>	M	Marchoux <i>et al.</i> (unpublished)
	<i>Xanthium saccharatum</i>	N	Cho <i>et al.</i> , 1987
		N	Sether and De Angelis, 1991
	<i>Xanthium spinosum</i>	N	Chatzivassiliou <i>et al.</i> , 1998
	<i>Xanthium strumarium</i>	F	Stobbs <i>et al.</i> , 1992
	<i>Xanthium strumosum</i>	N	Edwardson and Christie, 1997
	<i>Youngia japonica</i>	-	Sether and De Angelis, 1991
	<i>Zinnia elegans</i>	N	Cho <i>et al.</i> , 1987
		N	Tehrani <i>et al.</i> , 1990
		N	Latham and Jones, 1997
		N	Marchoux <i>et al.</i> , 2000
	<i>Zinnia peruviana</i>	M	Marchoux <i>et al.</i> (unpublished)
Balsaminaceae (9)	<i>Impatiens balsamina</i>	N	Thehrani <i>et al.</i> , 1990
		N	Chatzivassiliou <i>et al.</i> , 2000
	<i>Impatiens capensis</i>	F	Stobbs <i>et al.</i> , 1992
	<i>Impatiens holstii</i>	N	Sether and De Angelis, 1991
	<i>Impatiens x hybridus</i>	N	Hausbeck <i>et al.</i> , 1992
	<i>Impatiens</i> cv. New Guinea	N	Verhoeven and Roenhorst, 1994
		N	Daughtrey, 1996
	<i>Impatiens petersiana</i>	N	Chatzivassiliou <i>et al.</i> , 2000
	<i>Impatiens</i> sp.	N	Louro, 1996
	<i>Impatiens sultani</i>	N	Sether and De Angelis, 1991
	<i>Impatiens wallerana</i>	N	Hausbeck <i>et al.</i> , 1992
		N	Ruter and Gitaitis, 1993
		N	Tehrani <i>et al.</i> , 1990
		M	Verhoeven and Roenhorst, 1994
		N	Daughtrey, 1996
Begoniaceae (6)	<i>Begonia elatior</i>	N	Verhoeven and Roenhorst, 1998
	<i>Begonia gracilis</i>	-	Edwardson and Christie, 1997
	<i>Begonia x biemalis</i>	-	Cho <i>et al.</i> , 1987
	<i>Begonia semperflorens-cultorum</i>	N	Edwardson and Christie, 1997
	<i>Begonia</i> sp.	N	Hausbeck <i>et al.</i> , 1992
		N	Verhoeven and Roenhorst, 1994
		N	Chatzivassiliou <i>et al.</i> , 2000
	<i>Begonia x tuberhybrida</i>	-	Edwardson and Christie, 1997
Berberidaceae (1)	<i>Berberis</i> sp.	-	Adam and Kegler, 1994
Boraginaceae (9)	<i>Anchusa azurea</i>	N	Chatzivassiliou <i>et al.</i> , 1998
	<i>Anchusa capensis</i>	-	Edwardson and Christie, 1997
	<i>Anchusa officinalis</i>	N	Chatzivassiliou <i>et al.</i> , 1998
	<i>Anchusa undulata</i>	N	Chatzivassiliou <i>et al.</i> , 1998
	<i>Cynoglossum</i> sp.	N	Chatzivassiliou <i>et al.</i> , 1998
	<i>Heliotropium europaeum</i>	N	Chatzivassiliou <i>et al.</i> , 1998
	<i>Myosotis alpestris</i>	-	Best, 1968

Family	Species	Infection	Reference
	<i>Myosotis</i> sp.	F	Stobbs <i>et al.</i> , 1992
	<i>Symphytum tuberosum</i>	N	Chatzivassiliou <i>et al.</i> , 1998
<i>Brassicaceae</i> (= <i>Cruciferae</i>) (33)	<i>Alliaria officinalis</i>	F	Stobbs <i>et al.</i> , 1992
	<i>Alyssum maritimum</i>	N	Lavina <i>et al.</i> , 1996
	<i>Arabidopsis thaliana</i>	M	German <i>et al.</i> , 1995
	<i>Arabis</i> sp.	-	Edwardson and Christie, 1997
	<i>Aubieta deltooides</i>	-	Adam and Kegler, 1994
	<i>Barbarea vulgaris</i>	F	Stobbs <i>et al.</i> , 1992
	<i>Brassica campestris</i>	N	Cho <i>et al.</i> , 1987
	<i>Brassica napus</i>	N	Van Os <i>et al.</i> , 1993
	<i>Brassica oleracea</i>	-	Edwardson and Christie, 1997
		N	Marchoux <i>et al.</i> , 2000
	<i>Brassica oleracea</i> var. <i>botrytis</i>	-	Sether and De Angelis, 1991
	<i>Brassica pekinensis</i>	-	Edwardson and Christie, 1997
	<i>Brassica perviridis</i>	-	Edwardson and Christie, 1997
	<i>Brassica rapa</i> ssp. <i>chinensis</i>	N	Cho <i>et al.</i> , 1986
	<i>Brassica rapa</i> ssp. <i>silvestris</i>	N	Wilson, 1998
	<i>Capsella bursa-pastoris</i>	N	Cho <i>et al.</i> , 1986
		F	Stobbs <i>et al.</i> , 1992
		N	Wilson, 1998
	<i>Cardamine hirsuta</i>	N	Verhoeven and Roenhorst, 1998
	<i>Cardamine oligospermum</i>	F	Stobbs <i>et al.</i> , 1992
	<i>Cardamine</i> sp.	N	Marchoux <i>et al.</i> , 2000
	<i>Cardaria draba</i>	N	Van Os <i>et al.</i> , 1993
	<i>Cheiranthus cheiri</i>	-	Edwardson and Christie, 1997
	<i>Coronopus didymus</i>	N	Cho <i>et al.</i> , 1986
	<i>Diplotaxis eruroides</i>	N	Lavina <i>et al.</i> , 1996
	<i>Diplotaxis muralis</i>	N	Latham <i>et al.</i> , 1997
	<i>Erysimum cheiranthoides</i>	F	Stobbs <i>et al.</i> , 1992
	<i>Erysimum cheiri</i>	N	Marchoux <i>et al.</i> , 2000
	<i>Hesperis matronalis</i>	F	Stobbs <i>et al.</i> , 1992
	<i>Hirschfeldia incana</i>	N	Lavina <i>et al.</i> , 1996
	<i>Lepidium draba</i>	N	Lavina <i>et al.</i> , 1996
	<i>Lunaria annua</i>	M	Marchoux <i>et al.</i> (unpublished)
	<i>Matthiola incana</i>	N	Chatzivassiliou <i>et al.</i> , 2000
	<i>Narsturtium officinale</i>	N	Chatzivassiliou <i>et al.</i> , 1998
	<i>Rapbanus raphanistrum</i>	N	Van Os <i>et al.</i> , 1993
	<i>Sinapis arvensis</i>	N	Chatzivassiliou <i>et al.</i> , 1998
<i>Buddlejaceae</i> (= <i>Loganiaceae</i>) (1)	<i>Buddleja davidii</i>	N	Mertelik <i>et al.</i> , 1996
<i>Cactaceae</i> (3)	<i>Opuntia</i> sp.	N	Adam and Kegler, 1994
	<i>Schlumbergera bridgesii</i>	N	Tehrani <i>et al.</i> , 1990
	<i>Schlumbergera truncata</i>	N	Hausbeck <i>et al.</i> , 1991

Family	Species	Infection	Reference
<i>Campanulaceae</i> (16)	<i>Campanula americana</i>	F	Stobbs <i>et al.</i> , 1992
	<i>Campanula glomerata</i>	N	Edwardson and Christie, 1997
	<i>Campanula isophylla</i>	N	Edwardson and Christie, 1997
	<i>Campanula latiloba</i>	N	Edwardson and Christie, 1997
	<i>Campanula persicifolia</i>	N	Edwardson and Christie, 1997
	<i>Campanula pyramidalis</i>	N	Edwardson and Christie, 1997
	<i>Campanula rapunculoides</i>	F	Stobbs <i>et al.</i> , 1992
	<i>Campanula</i> sp.	N	Verhoeven and Roenhorst, 1994
	<i>Lobelia dortmanna</i>	N	Marchoux <i>et al.</i> , 2000
	<i>Lobelia erinus</i>	N	Verhoeven and Roenhorst, 1998
	<i>Lobelia ricardi</i>	N	Verhoeven and Roenhorst, 1998
	<i>Lobelia</i> sp.	N	Verhoeven and Roenhorst, 1994
	<i>Lobelia valida</i>	N	Verhoeven and Roenhorst, 1998
	<i>Specularia perfoliata</i>	N	Groves <i>et al.</i> , 2002
	<i>Trachelium caeruleum</i>	N	Marchoux <i>et al.</i> , 2000
	<i>Trachelium</i> sp.	N	Edwardson and Christie, 1997
<i>Caprifoliaceae</i> (5)	<i>Lonicera japonica</i>	M	Mertelik <i>et al.</i> , 1996
	<i>Sambucus nigra</i>	N, F	Mertelik <i>et al.</i> , 1996
	<i>Symphoricarpos albus</i>	F	Mertelik <i>et al.</i> , 1996
	<i>Weigela florida</i>	F	Mertelik <i>et al.</i> , 1996
	<i>Weigela florida</i> cv. <i>Variegata nana</i>	N	Ruter and Gitaitis, 1993
<i>Caricaceae</i> (1)	<i>Carica papaya</i>	N	Gonsalves and Trujillo, 1986
<i>Caryophyllaceae</i> (16)	<i>Agrostemma githago</i>	F N	Stobbs <i>et al.</i> , 1992 Daughtrey, 1996
	<i>Cerastium vulgatum</i>	F	Stobbs <i>et al.</i> , 1992
	<i>Dianthus chinensis</i>	N	Chatzivassiliou <i>et al.</i> , 2000
	<i>Dianthus</i> sp.	N	Anonymous, 1991
	<i>Gypsophila elegans</i>	N N	Tehrani <i>et al.</i> , 1990 Sether and De Angelis, 1991
	<i>Gypsophila paniculata</i>	N	Best, 1968
	<i>Lychnis alba</i>	F	Stobbs <i>et al.</i> , 1992
	<i>Lychnis chalconica</i>	-	Edwardson and Christie, 1997
	<i>Lychnis coronaria</i>	N	Best, 1968
	<i>Saponaria officinalis</i>	F	Stobbs <i>et al.</i> , 1992
	<i>Silene alba</i>	F N N	Stobbs <i>et al.</i> , 1992 Jorda <i>et al.</i> , 1995 Chatzivassiliou <i>et al.</i> , 1998
	<i>Silene</i> sp.	N	Chatzivassiliou <i>et al.</i> , 1998
	<i>Silene vulgaris</i>	N	Rosello <i>et al.</i> , 1994
	<i>Spergula arvensis</i>	F N	Stobbs <i>et al.</i> , 1992 Latham <i>et al.</i> , 1997
	<i>Stellaria media</i>	N N F N	Cho <i>et al.</i> , 1986 Marchoux <i>et al.</i> , 1991 Stobbs <i>et al.</i> , 1992 Latham <i>et al.</i> , 1997

Family	Species	Infection	Reference
	<i>Stellaria</i> sp.	N	Best, 1968
		N	Sether and De Angelis, 1991
<i>Chenopodiaceae</i> (14)	<i>Beta vulgaris</i>	N	Marchoux <i>et al.</i> , 2000
	<i>Chenopodium album</i>	N	Cho <i>et al.</i> , 1986
		N	Cho <i>et al.</i> , 1989
		F	Stobbs <i>et al.</i> , 1992
		N	Louro, 1996
		N	Latham <i>et al.</i> , 1997
		N	Grieco <i>et al.</i> , 2000
	<i>Chenopodium amaranticolor</i>	F	Stobbs <i>et al.</i> , 1992
	<i>Chenopodium ambrosioides</i>	N	Cho <i>et al.</i> , 1986
	<i>Chenopodium capitatum</i>	-	Adam and Kegler, 1994
	<i>Chenopodium foetidum</i>	-	Edwardson and Christie, 1997
	<i>Chenopodium foliosum</i>	-	Adam and Kegler, 1994
	<i>Chenopodium gigantospermum</i>	F	Stobbs <i>et al.</i> , 1992
	<i>Chenopodium glaucum</i>	F	Stobbs <i>et al.</i> , 1992
		N	Chatzivassiliou <i>et al.</i> , 1998
	<i>Chenopodium murale</i>	N	Cho <i>et al.</i> , 1986
		N	Cho <i>et al.</i> , 1989
		F	Stobbs <i>et al.</i> , 1992
	<i>Chenopodium quinoa</i>	M	Pocsai <i>et al.</i> , 1998
	<i>Chenopodium urbicum</i>	-	Adam and Kegler, 1994
	<i>Salsola pestifer</i>	F	Stobbs <i>et al.</i> , 1992
	<i>Spinacia oleracea</i>	N	Edwardson and Christie, 1997
		N	Marchoux <i>et al.</i> , 2000
<i>Convolvulaceae</i> (16)	<i>Calystegia sepium</i>	F	Stobbs <i>et al.</i> , 1992
		N	Van Os <i>et al.</i> , 1993
	<i>Convolvulus althaeoides</i>	N	Chatzivassiliou <i>et al.</i> , 1998
	<i>Convolvulus arvensis</i>	F	Stobbs <i>et al.</i> , 1993
		N	Lavina <i>et al.</i> , 1996
		N	Louro, 1996
	<i>Convolvulus cantabrica</i>	N	Van Os <i>et al.</i> , 1993
	<i>Convolvulus sepium</i>	F	Stobbs <i>et al.</i> , 1993
	<i>Convolvulus</i> sp.	N	Best, 1968
		N	Van Os <i>et al.</i> , 1993
	<i>Dichondra carolinensis</i>	M	Sakimura, 1961
	<i>Ipomea batatas</i>	N	Edwardson and Christie, 1997
	<i>Ipomea congesta</i>	N	Cho <i>et al.</i> , 1986
		N	Cho <i>et al.</i> , 1989
		F	Stobbs <i>et al.</i> , 1992
	<i>Ipomea hederacea</i>	M	Sakimura, 1961
	<i>Ipomea hederifolia</i>	M	Sakimura, 1961
	<i>Ipomea lacunosa</i>	F	Johnson <i>et al.</i> , 1996
	<i>Ipomea purpurea</i>	-	Sether and De Angelis, 1991
		N	Chatzivassiliou <i>et al.</i> , 1998
	<i>Jacquemontia tamnifolia</i>	N	Schuster and Halliwell, 1994
		N	Johnson <i>et al.</i> , 1995

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	<i>Quamoclit coccinea</i>	M	Sakimura <i>et al.</i> , 1961
	<i>Sedum</i> sp.	F	Stobbs <i>et al.</i> , 1992
<i>Cornaceae</i> (1)	<i>Cornus sanguinea</i>	N	Chatzivassiliou <i>et al.</i> , 1998
<i>Crassulaceae</i> (4)	<i>Kalanchoe blossfeldiana</i>	N	Hausbeck <i>et al.</i> , 1992
		N	Verhoeven and Roenhorst, 1994
	<i>Kalanchoe daigremontiana</i>	N	Verhoeven and Roenhorst, 1994
	<i>Kalanchoe</i> sp.	N	Tehrani <i>et al.</i> , 1990
		N	Verhoeven and Roenhorst, 1994
	<i>Kalanchoe thyrsiflora</i>	N	Verhoeven and Roenhorst, 1994
<i>Cucurbitaceae</i> (12)	<i>Citrullus lanatus</i>	-	Sether and De Angelis, 1991
	<i>Citrullus vulgaris</i>	-	Sether and De Angelis, 1991
	<i>Cucumis melo</i>	N	Marchoux <i>et al.</i> , 2000
	<i>Cucumis mucronata</i>	-	Sether and De Angelis, 1991
	<i>Cucumis sativus</i>	M	Marchoux <i>et al.</i> , 1991
		N	Nagata <i>et al.</i> , 1995
	<i>Cucurbita maxima</i>	-	Sether and De Angelis, 1991
	<i>Cucurbita moschata</i>	-	Sether and De Angelis, 1991
	<i>Cucurbita pepo</i>	-	Sether and De Angelis, 1991
		N	Nagata <i>et al.</i> , 1995
	<i>Echinocystis lobata</i>	F	Stobbs <i>et al.</i> , 1992
	<i>Lagenaria leucantha</i>	-	Sether and De Angelis, 1991
	<i>Luffa cylindrica</i>	-	Sether and De Angelis, 1991
<i>Sechium edule</i>	N	Edwardson and Christie, 1997	
<i>Dipsacaceae</i> (3)	<i>Scabiosa atropurpurea</i>	-	Sether and De Angelis, 1991
	<i>Scabiosa</i> sp.	N	Edwardson and Christie, 1997
	<i>Dipsacus fullonum</i>	M	Marchoux <i>et al.</i> (unpublished)
<i>Ericaceae</i> (1)	<i>Rhododendron</i> sp.	N	Hausbeck <i>et al.</i> , 1992
<i>Euphorbiaceae</i> (7)	<i>Euphorbia eritrea</i>	N	Salomone <i>et al.</i> , 2003
	<i>Euphorbia heterophylla</i>	N	Johnson <i>et al.</i> , 1995
	<i>Euphorbia peplus</i>	N	Van Os <i>et al.</i> , 1993
	<i>Euphorbia pulcherrima</i>	N	Kaminska and Korbin, 1994
		N	Marchoux <i>et al.</i> , 2000
	<i>Mercurialis annua</i>	N	Grieco <i>et al.</i> , 2000
	<i>Pedilanthus tithymaloides</i>	-	Adam and Kegler, 1994
	<i>Ricinus communis</i>	-	Sether and De Angelis, 1991
<i>Fabaceae</i> (=Leguminosae) (60)	<i>Arachis batizocai</i>	N	Rosello <i>et al.</i> , 1994
	<i>Arachis duranensis</i>	N	Rosello <i>et al.</i> , 1994
	<i>Arachis hypogaea</i>	N	Johnson <i>et al.</i> , 1996
	<i>Arachis monticola</i>	N	Rosello <i>et al.</i> , 1994

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	<i>Arachis pusilla</i>	N	Rosello <i>et al.</i> , 1994
	<i>Arachis stenosperma</i>	N	Rosello <i>et al.</i> , 1994
	<i>Arachis villosulicarpa</i>	N	Rosello <i>et al.</i> , 1994
	<i>Brunfelsia</i> sp.	-	Edwardson and Christie, 1997
	<i>Cajanus cajan</i>	-	Edwardson and Christie, 1997
	<i>Canavalia ensiformis</i>	-	Edwardson and Christie, 1997
	<i>Canavalia gladiata</i>	N	Rosello <i>et al.</i> , 1994
	<i>Cassia floribunda</i>	-	Edwardson and Christie, 1997
	<i>Cassia obtusifolia</i>	N	Edwardson and Christie, 1997
	<i>Cassia occidentalis</i>	F	Stobbs <i>et al.</i> , 1992
	<i>Cassia tora</i>	N	Rosello <i>et al.</i> , 1994
	<i>Cicer arietinum</i>	N	EPPO/CABI, 1997
	<i>Crotalaria incana</i>	N	Cho <i>et al.</i> , 1986
	<i>Crotalaria juncea</i>	N	Edwardson and Christie, 1997
	<i>Crotalaria mucronata</i>	N	Cho <i>et al.</i> , 1986
	<i>Crotalaria spectabilis</i>	N	Groves <i>et al.</i> , 2002
	<i>Cytisus scoparius</i>	N	Van Os <i>et al.</i> , 1993
	<i>Desmodium tortuosum</i>	F	Johnson <i>et al.</i> , 1996
	<i>Desmodium trifolium</i>	N	Rosello <i>et al.</i> , 1994
	<i>Desmodium uncinatum</i>	N	Cho <i>et al.</i> , 1986
	<i>Dolichos lablab</i>	-	Sether and De Angelis, 1991
	<i>Dolichos uniflorus</i>	-	Edwardson and Christie, 1997
	<i>Gleditschia tricanthos</i>	N	Mertelik <i>et al.</i> , 1996
	<i>Glycine max</i>	N	Edwardson and Christie, 1997
	<i>Glycine soja</i>	N	Golnaraghi <i>et al.</i> , 2002
	<i>Lathyrus odoratus</i>	N	Edwardson and Christie, 1997
	<i>Lathyrus sativus</i>	N	Zimmer and Haber, 1992
	<i>Lens culinaris</i>	N	EPPO/CABI, 1997
	<i>Lupinus albus</i>	-	Edwardson and Christie, 1997
	<i>Lupinus angustifolius</i>	-	Edwardson and Christie, 1997
	<i>Lupinus leucophyllus</i>	N	Edwardson and Christie, 1997
	<i>Lupinus polyphyllus</i>	N	Edwardson and Christie, 1997
	<i>Lupinus</i> sp.	F	Stobbs <i>et al.</i> , 1992
	<i>Lupinus subcarosus</i>	N	Shuster and Halliwell, 1994.
	<i>Medicago aviculare</i>	N	Wilson, 1998
	<i>Medicago lupulina</i>	F	Stobbs <i>et al.</i> , 1992
	<i>Medicago polymorpha</i>	N	Cho <i>et al.</i> , 1986
	<i>Medicago</i> sp.	N	Edwardson and Christie, 1997
	<i>Melilotus officinalis</i>	N	Cho <i>et al.</i> , 1986
		N	Cho <i>et al.</i> , 1989
		F	Stobbs <i>et al.</i> , 1992
	<i>Phaseolus angularis</i>	-	Edwardson and Christie, 1997
	<i>Phaseolus aureus</i>	N	Edwardson and Christie, 1997
	<i>Phaseolus lunatus</i>	-	Sether and De Angelis, 1991
	<i>Phaseolus mungo</i>	N	Edwardson and Christie, 1997
	<i>Phaseolus</i> sp.	N	Verhoeven and Roenhorst, 1994

Family	Species	Infection	Reference
	<i>Phaseolus vulgaris</i>	N N N	Cho <i>et al.</i> , 1986 Louro, 1996 Marchoux <i>et al.</i> , 2000
	<i>Pisum arvense</i>	N	Edwardson and Christie, 1997
	<i>Pisum sativum</i>	F N	Roca <i>et al.</i> , 1997 Marchoux <i>et al.</i> , 2000
	<i>Tephrosia purpurea</i>	N	Edwardson and Christie, 1997
	<i>Trifolium incarnatum</i>	N	Edwardson and Christie, 1997
	<i>Trifolium repens</i>	F N	Stobbs <i>et al.</i> , 1992 Lavina <i>et al.</i> , 1996
	<i>Trifolium</i> sp.	N N N	Bitterlich and MacDonald, 1993 Lavina <i>et al.</i> , 1996 Wilson, 1998
	<i>Trifolium subterraneum</i>	-	Edwardson and Christie, 1997
	<i>Vicia faba</i>	N N N	Marchoux <i>et al.</i> , 1991 Louro, 1996 Latham and Jones, 1997
	<i>Vigna mungo</i>	-	Edwardson and Christie, 1997
	<i>Vigna radiata</i>	-	Edwardson and Christie, 1997
	<i>Vigna unguiculata</i> ssp. <i>sesquipedalis</i>	-	Edwardson and Christie, 1997
	<i>Vigna unguiculata</i> ssp. <i>unguiculata</i> (= <i>V. sinensis</i>)	N M N N	Cho <i>et al.</i> , 1987 Marchoux <i>et al.</i> , 1991 Verhoeven and Roenhorst, 1994 Edwardson and Christie, 1997
<i>Gentianaceae</i> (6)	<i>Eustoma grandiflorum</i>	N	Marchoux <i>et al.</i> , 2000
	<i>Eustoma russellianum</i>	M	Edwardson and Christie, 1997
	<i>Eustoma</i> sp.	-	Sether and De Angelis, 1991
	<i>Exacum affine</i>	N	Tehrani <i>et al.</i> , 1990
	<i>Exacum officinale</i>	M	Edwardson and Christie, 1997
	<i>Lisianthus</i> sp.	N	Rosello <i>et al.</i> , 1994
<i>Geraniaceae</i> (15)	<i>Erodium ciconium</i>	N	Chatzivassiliou <i>et al.</i> , 1998
	<i>Erodium moschatum</i>	N	Wilson <i>et al.</i> , 1998
	<i>Erodium</i> sp.	N	Chatzivassiliou <i>et al.</i> , 1998
	<i>Geranium carolinianum</i>	N	Groves <i>et al.</i> , 2002
	<i>Geranium robertianum</i>	F	Stobbs <i>et al.</i> , 1992
	<i>Geranium</i> sp.	N N	Sether and De Angelis, 1991 Chatzivassiliou <i>et al.</i> , 2000
	<i>Pelargonium crispum</i>	N	Sherwood and von Broembsen, 1991
	<i>Pelargonium</i> x <i>grandiflorum</i>	N	Marchoux <i>et al.</i> , 2000
	<i>Pelargonium</i> x <i>hortorum</i>	N N	Tehrani <i>et al.</i> , 1990 Bitterlich and Mac Donald, 1993
	<i>Pelargonium</i> x <i>hortorum</i> (2N)	N	Hausbeck <i>et al.</i> , 1992
	<i>Pelargonium</i> x <i>hortorum</i> (4N)	N	Hausbeck <i>et al.</i> , 1992
	<i>Pelargonium limoneum</i>	N	Sherwood and von Broembsen, 1991
	<i>Pelargonium peltatum</i>	N N N N	Hausbeck <i>et al.</i> , 1992 Verhoeven and Roenhorst, 1994 Louro, 1996 Marchoux <i>et al.</i> , 2000

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	<i>Pelargonium</i> sp.	N	Chatzivassiliou <i>et al.</i> , 2000
	<i>Pelargonium zonale</i>	N	Louro, 1996
		-	Edwardson and Christie, 1997
<i>Gesneriaceae</i> (19)	<i>Achimenes</i> sp.	N	Verhoeven and Roenhorst, 1998
	<i>Aeschynanthus pulcher</i>	-	Adam and Kegler, 1994
	<i>Aeschynanthus</i> sp.	N	Verhoeven and Roenhorst, 1998
		M	Edwardson and Christie, 1997
	<i>Aeschynanthus speciosus</i>	N	Verhoeven and Roenhorst, 1998
	<i>Codonanthe crassifolia</i>	N	Verhoeven and Roenhorst, 1998
	<i>Columnea hirta</i>	N	Verhoeven and Roenhorst, 1998
	<i>Columnea kwensis</i>	N	Verhoeven and Roenhorst, 1998
	<i>Columnea</i> sp.	N	Hausbeck <i>et al.</i> , 1992
		N	Verhoeven and Roenhorst, 1998
	<i>Gesneria</i> sp.	-	Edwardson and Christie, 1997
	<i>Gloxinia hybridum</i>	-	Sether and De Angelis, 1991
	<i>Gloxinia</i> sp.	-	Edwardson and Christie, 1997
	<i>Gloxinia sylvatica</i>	N	Verhoeven and Roenhorst, 1998
	<i>Saintpaulia ionatha</i>	N	Tehrani <i>et al.</i> , 1990
		-	Sether and De Angelis, 1991
		N	Chatzivassiliou <i>et al.</i> , 2000
		N	Marchoux <i>et al.</i> , 2000
	<i>Saintpaulia</i> sp.	M	Marchoux <i>et al.</i> (unpublished)
	<i>Sinningia speciosa</i>	N	Matteoni <i>et al.</i> , 1989
		N	Bertaccini and Bellardi, 1990
		F	Allen and Matteoni, 1991
		N	Marchoux <i>et al.</i> , 1991
		N	Hausbeck <i>et al.</i> , 1992
		N	Verhoeven and Roenhorst, 1994
		N	Louro, 1996
	<i>Sinningia</i> sp.	N	Marchoux <i>et al.</i> , 1991
	<i>Sinningia tigrina</i>	-	Sether and De Angelis, 1991
	<i>Sinningia speciosa</i>	N	Edwardson and Christie, 1997
	<i>Streptocarpus</i> sp.	-	Adam and Kegler, 1994
<i>Hypericaceae</i> (1)	<i>Hypericum crispum</i>	N	Chatzivassiliou <i>et al.</i> , 1998
<i>Lamiaceae</i> (= <i>Labiatae</i>) (33)	<i>Ballota nigra</i>	N	Chatzivassiliou <i>et al.</i> , 1998
	<i>Coleus blumei</i>	-	Adam and Kegler, 1994
	<i>Coleus</i> sp.	-	Sether and De Angelis, 1991
	<i>Lamium amplexicaule</i>	F	Stobbs <i>et al.</i> , 1992
		N	Jorda <i>et al.</i> , 1995
	<i>Lamium purpurea</i>	N	Chatzivassiliou <i>et al.</i> , 1998
	<i>Lavendula vera</i>	N	Marchoux <i>et al.</i> , 2000
	<i>Leonotis nepetaefolia</i>	N	Cho <i>et al.</i> , 1986
	<i>Lycopus europaeus</i>	N	Chatzivassiliou <i>et al.</i> , 1998
	<i>Marrubium vulgare</i>	F	Stobbs <i>et al.</i> , 1992
		N	Latham and Jones, 1997

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	<i>Melissa officinalis</i>	N	Chatzivassiliou <i>et al.</i> , 1998
	<i>Mentha arvensis</i>	F N	Stobbs <i>et al.</i> , 1992 Grieco <i>et al.</i> , 2000
	<i>Mentha microphylla</i>	N	Chatzivassiliou <i>et al.</i> , 1998
	<i>Mentha piperita</i>	-	Sether and De Angelis, 1991
	<i>Mentha spicata</i>	-	Sether and De Angelis, 1991
	<i>Mentha</i> sp.	N	Marchoux <i>et al.</i> , 2000
	<i>Mentha suaveolens</i>	N	Chatzivassiliou <i>et al.</i> , 1998
	<i>Moluccella laevis</i>	N N N	Rosello <i>et al.</i> , 1994 Jorda <i>et al.</i> , 1995 Edwardson and Christie, 1997
	<i>Monarda didyma</i>	-	Adam and Kegler, 1994
	<i>Monarda fistulosa</i>	F	Stobbs <i>et al.</i> , 1992
	<i>Nepeta cataria</i>	-	Edwardson and Christie, 1997
	<i>Nepeta nuda</i>	N	Chatzivassiliou <i>et al.</i> , 1998
	<i>Ocimum basilicum</i>	N, M N	Marchoux <i>et al.</i> , 1991 Holcomb <i>et al.</i> , 1999
	<i>Physostegia virginiana</i>	-	Adam and Kegler, 1994
	<i>Plectranthus australis</i>	-	Adam and Kegler, 1994
	<i>Prunella vulgaris</i>	N	Chatzivassiliou <i>et al.</i> , 1998
	<i>Salvia pratensis</i>	N	Van Os <i>et al.</i> , 1993
	<i>Salvia splendens</i>	N	Edwardson and Christie, 1997
	<i>Salvia</i> sp.	N	Marchoux <i>et al.</i> , 2000
	<i>Salvia verbenaca</i>	N	Chatzivassiliou <i>et al.</i> , 1998
	<i>Salvia officinalis</i>	N	Marchoux <i>et al.</i> , 2000
	<i>Scutellaria</i> sp.	-	Sether and De Angelis, 1991
	<i>Stachys arvensis</i>	N	Cho <i>et al.</i> , 1986
	<i>Stachys</i> sp.	-	Sether and De Angelis, 1991
<i>Malvaceae</i> (15)	<i>Abelmoschus esculentus</i> (= <i>Hibiscus esculentus</i>)	M -	Halliwell, 1988 Sether and De Angelis, 1991
	<i>Gossypium barbadense</i>	M	Shuster and Halliwell, 1994
	<i>Gossypium hirsutum</i>	M M, Ff	Shuster and Halliwell, 1994 Groves <i>et al.</i> , 1998
	<i>Hibiscus subcarneus</i>	N	Rosello <i>et al.</i> , 1994
	<i>Hibiscus tiliaceus</i>	M	Halliwell, 1988
	<i>Hibiscus trionum</i>	F	Stobbs <i>et al.</i> , 1992
	<i>Lavatera trimestris</i>	M	Marchoux <i>et al.</i> (unpublished)
	<i>Malcomia maritima</i>	-	Best, 1968
	<i>Malva neglecta</i>	F N	Stobbs <i>et al.</i> , 1992 Grieco <i>et al.</i> , 2000
	<i>Malva nicaeensis</i>	N	Cho <i>et al.</i> , 1987
	<i>Malva parviflora</i>	N N F F	Cho <i>et al.</i> , 1986 Cho <i>et al.</i> , 1989 Stobbs <i>et al.</i> , 1992 Bautista <i>et al.</i> , 1995

Family	Species	Infection	Reference
	<i>Malva rotundifolia</i>	-	Edwardson and Christie, 1997
	<i>Malva</i> sp.	N	Edwardson and Christie, 1997
	<i>Malva sylvestris</i>	N	Lavina <i>et al.</i> , 1996
		N	Wilson, 1998
	<i>Sida spinosa</i>	N	Johnson <i>et al.</i> , 1996
Melastomataceae (2)	<i>Medinilla magnifica</i>	N	Kaminska and Korbin, 1994
	<i>Medinilla magnifolia</i>	N	Kaminska and Korbin, 1991
Moraceae (7)	<i>Ficus benjamina</i>	N	Verhoeven and Roenhorst, 1998
	<i>Ficus cyathistipula</i>	N	Kaminska and Korbin, 1994
	<i>Ficus elastica</i> cv Decora	N	Verhoeven and Roenhorst, 1994
	<i>Ficus elastica</i> cv Variegata	N	Verhoeven and Roenhorst, 1994
	<i>Ficus lyrata</i>	N	Kaminska and Korbin, 1994
	<i>Ficus</i> spp.	N	Verhoeven and Roenhorst, 1994
	<i>Ficus stipulata</i>	N	Lavina and Battle, 1993
Myrsinaceae (1)	<i>Ardisia</i> sp.	N	Verhoeven and Roenhorst, 1998
Nolanaceae (1)	<i>Nolana</i> sp.	N	Tehrani <i>et al.</i> , 1990
Oleaceae (3)	<i>Ligustrum vulgare</i>	N	Mertelik <i>et al.</i> , 1996
	<i>Jasminium odoratissimum</i>	N	Louro, 1996
	<i>Jasminium</i> sp.	N	Marchoux <i>et al.</i> , 2000
Onagraceae (10)	<i>Clarkia amoena</i> ssp. <i>lindleyi</i>	-	Sether and De Angelis, 1991
	<i>Clarkia</i> sp.	M	Marchoux <i>et al.</i> (unpublished)
	<i>Epilobium hirsutum</i>	N	Chatzivassiliou <i>et al.</i> , 1998
	<i>Fuschia x hybrida</i>	N	Matteoni <i>et al.</i> , 1989
		-	Sether and De Angelis, 1991
		N	Marchoux <i>et al.</i> , 2000
	<i>Fuschia</i> sp.	N	Louro, 1996
	<i>Godetia grandiflora</i>	-	Edwardson and Christie, 1997
	<i>Oenothera biennis</i>	F	Stobbs <i>et al.</i> , 1992
	<i>Oenothera laciniata</i>	N	Groves <i>et al.</i> , 2002
	<i>Oenothera lamarckiana</i>	M	Edwardson and Christie, 1997
	<i>Oenothera</i> sp.	N	Best, 1968
Oxalidaceae (5)	<i>Oxalis acetosella</i>	N	Groves <i>et al.</i> , 2002
	<i>Oxalis corniculata</i>	N	Van Os <i>et al.</i> , 1993
		N	Marchoux <i>et al.</i> , 2000
	<i>Oxalis crenata</i>	N	Rosello <i>et al.</i> , 1994
	<i>Oxalis</i> sp.	N	Marchoux <i>et al.</i> , 1991
	<i>Oxalis stricta</i>	F	Stobbs <i>et al.</i> , 1992
Paeoniaceae (1)	<i>Paeonia</i> sp.	-	Holmes, 1939
		-	Edwardson and Christie, 1997

Family	Species	Infection	Reference
<i>Papaveraceae</i> (8)	<i>Fumaria muralis</i>	N	Latham and Jones, 1997
		M	Marchoux <i>et al.</i> (unpublished)
	<i>Fumaria officinalis</i>	N	Chatzivassiliou <i>et al.</i> , 1998
		N	Marchoux <i>et al.</i> , 2000
	<i>Papaver dubium</i>	N	Grieco <i>et al.</i> , 2000
	<i>Papaver nudicaule</i>	N	Edwardson and Christie, 1997
		N	Rosello <i>et al.</i> , 1994
	<i>Papaver orientalis</i>	N	Rosello <i>et al.</i> , 1994
<i>Papaver rhoeas</i>	N	Chatzivassiliou <i>et al.</i> , 1998	
<i>Papaver somniferum</i>	N	Rosello <i>et al.</i> , 1994	
<i>Papaver</i> sp.	F	Stobbs <i>et al.</i> , 1992	
<i>Pedaliaceae</i> (1)	<i>Sesamum indicum</i>	N	Costa and Forster, 1942
		-	Sether and De Angelis, 1991
<i>Phytolaccaceae</i> (2)	<i>Phytolacca americana</i>	-	Edwardson and Christie, 1997
	<i>Phytolacca decandra</i>	-	Sether and De Angelis, 1991
<i>Piperaceae</i> (4)	<i>Peperomia fraseri</i>	N	Verhoeven and Roenhorst, 1998
	<i>Peperomia obtusifolia</i>	N	Kaminska and Korbin, 1994
	<i>Peperomia rotundifolia</i>	N	Verhoeven and Roenhorst, 1998
	<i>Peperomia</i> sp.	N	Berling, 1991
N		Verhoeven and Roenhorst, 1994	
<i>Pittosporaceae</i> (1)	<i>Pittosporum tobira</i>	N	Rosello <i>et al.</i> , 1994
<i>Plantaginaceae</i> (3)	<i>Plantago lanceolata</i>	F	Stobbs <i>et al.</i> , 1992
	<i>Plantago major</i>	N	Grieco <i>et al.</i> , 2000
	<i>Plantago rugelii</i>	F	Stobbs <i>et al.</i> , 1992
N		Edwardson and Christie, 1997	
<i>Plumbaginaceae</i> (6)	<i>Limonium latifolium</i>	N	Cho <i>et al.</i> , 1986
		N	Louro, 1996;
		N	Marchoux <i>et al.</i> , 2000
	<i>Limonium perezii</i>	N	Vaira <i>et al.</i> , 1992b
	<i>Limonium sinuatum</i>	N	Vaira <i>et al.</i> , 1992b
		N	Rosello <i>et al.</i> , 1994
<i>Limonium</i> sp.	N	Vaira <i>et al.</i> , 1992c	
	N	Verhoeven and Roenhorst, 1998	
<i>Limonium tataricum</i>	N	Berling, 1991	
<i>Limonium vulgare</i>	N	Latham and Jones, 1997	
<i>Polemoniaceae</i> (1)	<i>Pblox drummondii</i>	N	Edwardson and Christie, 1997
<i>Polygonaceae</i> (14)	<i>Fagopyrum esculentum</i>	F	Stobbs <i>et al.</i> , 1992
	<i>Fallopia convolvulus</i>	N	Van Os B. <i>et al.</i> , 1993
	<i>Persicaria maculosa</i>	N	Van Os B. <i>et al.</i> , 1993
	<i>Polygonum aviculare</i>	F	Stobbs <i>et al.</i> , 1992
N		Latham and Jones, 1997	

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	<i>Polygonum convolvulus</i>	F	Stobbs <i>et al.</i> , 1992
	<i>Polygonum hydropiper</i>	-	Sether and De Angelis, 1991
	<i>Polygonum lapathifolium</i>	N	Verhoeven and Roenhorst, 1998
	<i>Polygonum pensylvanicum</i>	N	Groves <i>et al.</i> , 2002
	<i>Polygonum persicaria</i>	F	Stobbs <i>et al.</i> , 1992
	<i>Polygonum</i> sp.	F	Stobbs <i>et al.</i> , 1992
	<i>Rumex acetosella</i>	M	Marchoux <i>et al.</i> (unpublished)
	<i>Rumex conglomeratus</i>	N	Van Os B. <i>et al.</i> , 1993
	<i>Rumex crispus</i>	F	Stobbs <i>et al.</i> , 1992
	<i>Rumex</i> sp.	N	Lavina <i>et al.</i> , 1996
<i>Portulacaceae</i> (4)	<i>Claytonia perfoliata</i>	-	Edwardson and Christie, 1997
	<i>Montia</i> sp.	-	Best, 1968
	<i>Portulaca grandiflora</i>	N	Hausbeck <i>et al.</i> , 1992
	<i>Portulaca oleracea</i>	N	Cho <i>et al.</i> , 1986
		F	Stobbs <i>et al.</i> , 1992
		N	Lavina <i>et al.</i> , 1996
		N	Latham and Jones, 1997
		N	Grieco <i>et al.</i> , 2000
<i>Primulaceae</i> (14)	<i>Anagallis arvensis</i>	F	Stobbs <i>et al.</i> , 1992
		N	Marchoux <i>et al.</i> , 2000
	<i>Anagallis arvensis</i> var. <i>caerulea</i>	N	Latham and Jones, 1997
	<i>Cyclamen persicum</i>	N	Edwardson and Christie, 1997
		N	Marchoux <i>et al.</i> , 2000
	<i>Cyclamen persicum</i> cv. <i>Carmen</i>	N, M, F	Allen and Matteoni, 1988
	<i>Cyclamen</i> sp.	N	Verhoeven and Roenhorst, 1994
	<i>Lysimachia congestiflora</i>	N	Verhoeven and Roenhorst, 1998
	<i>Lysimachia consisti</i>	N	Verhoeven and Roenhorst, 1998
	<i>Lysimachia nummularia</i>	N	Verhoeven and Roenhorst, 1998
		N	Marchoux <i>et al.</i> , 2000
	<i>Primula acaulis</i>	N	Verhoeven and Roenhorst, 1998
		N	Marchoux <i>et al.</i> , 2000
	<i>Primula malacoides</i>	-	Best, 1968
	<i>Primula obconica</i>	-	Best, 1968
		N	Marchoux <i>et al.</i> , 2000
	<i>Primula sinensis</i>	-	Best, 1968
	<i>Primula</i> sp.	-	Best, 1968
		N	Hausbeck <i>et al.</i> , 1992
		N	Verhoeven and Roenhorst, 1994
	<i>Primula vulgaris</i> (= <i>Primula acaulis</i>)	N	Tehrani <i>et al.</i> , 1990
<i>Ranunculaceae</i> (21)	<i>Aconitum carmichaeli</i>	N	Marchoux <i>et al.</i> , 2000
	<i>Aconitum</i> sp.	N	Berling, 1991
	<i>Anemone coronaria</i>	N	Lisa <i>et al.</i> , 1990
		N	Tehrani <i>et al.</i> , 1990
		N	Marchoux <i>et al.</i> , 1991
		-	Sether and De Angelis, 1991

Family	Species	Infection	Reference
	<i>Anemone</i> sp.	N	Vaira <i>et al.</i> , 1992
		N	Verhoeven and Roenhorst, 1994
	<i>Aquilegia coerulea</i>	M	Edwardson and Christie, 1997
	<i>Aquilegia vulgaris</i>	F	Stobbs <i>et al.</i> , 1992
	<i>Clematis flammula</i>	N	Chatzivassiliou <i>et al.</i> , 1998
	<i>Clematis vitalba</i>	N	Chatzivassiliou <i>et al.</i> , 1998
	<i>Consolida ambigua</i>	M	Marchoux <i>et al.</i> (unpublished)
	<i>Delphinium cultorum</i>	M	Marchoux <i>et al.</i> (unpublished)
	<i>Delphinium hybridum</i>	N	Latham <i>et al.</i> , 1997
	<i>Delphinium</i> sp.	N	Edwardson and Christie, 1997
		N	Marchoux <i>et al.</i> , 2000
	<i>Paeonia lactiflora</i>	-	Edwardson and Christie, 1997
	<i>Ranunculus abortivus</i>	F	Stobbs <i>et al.</i> , 1992
	<i>Ranunculus acris</i>	F	Stobbs <i>et al.</i> , 1992
	<i>Ranunculus arvensis</i>	F	Stobbs <i>et al.</i> , 1992
	<i>Ranunculus asiaticus</i>	N	Lisa <i>et al.</i> , 1990
		N	Daughtrey, 1996
	<i>Ranunculus bulbosus</i>	N	Groves <i>et al.</i> , 2002
	<i>Ranunculus hibridus</i>	N	Rosello <i>et al.</i> , 1994
	<i>Ranunculus sardous</i>	Ff	Hobbs <i>et al.</i> , 1993
		N	Johnson <i>et al.</i> , 1995
	<i>Ranunculus</i> sp.	N	Bond <i>et al.</i> , 1983
		N	Hausbeck <i>et al.</i> , 1992
		N	Vaira <i>et al.</i> , 1992
<i>Resedaceae</i> (1)	<i>Reseda phyteuma</i>	M	Marchoux <i>et al.</i> (unpublished)
<i>Rhamnaceae</i> (1)	<i>Rhamnus</i> sp.	N	Marchoux <i>et al.</i> , 2000
<i>Rosaceae</i> (7)	<i>Fragaria vesca</i>	-	Sether and De Angelis, 1991
	<i>Potentilla reptans</i>	N	Chatzivassiliou <i>et al.</i> , 1998
	<i>Rubus idaeus</i>	N	Edwardson and Christie, 1997
	<i>Rubus</i> sp.	N	Lavina <i>et al.</i> , 1996
	<i>Rubus ulmifolius</i>	N	Chatzivassiliou <i>et al.</i> , 1998
	<i>Sanguisorba minor</i>	N	Chatzivassiliou <i>et al.</i> , 1998
	<i>Sorbus aucuparia</i>	N	Edwardson and Christie, 1997
<i>Rubiaceae</i> (9)	<i>Bouvardia</i> sp.	N	Vaira <i>et al.</i> , 1992
		N	Verhoeven and Roenhorst, 1994
	<i>Coffea arabica</i>	-	Edwardson and Christie, 1997
	<i>Galium aparine</i>	N	Chatzivassiliou <i>et al.</i> , 1998
	<i>Galium lucidium</i>	N	Chatzivassiliou <i>et al.</i> , 1998
	<i>Galium parisiensis</i>	N	Rosello <i>et al.</i> , 1994
		N	Jorda <i>et al.</i> , 1995
	<i>Galium</i> sp.	N	Edwardson and Christie, 1997
	<i>Galium tricorutum</i>	N	Rosello <i>et al.</i> , 1994
		N	Jorda <i>et al.</i> , 1995

Family	Species	Infection	Reference
	<i>Galium verum</i>	N	Chatzivassiliou <i>et al.</i> , 1998
	<i>Gardenia jasminoides</i>	N	Tehrani <i>et al.</i> , 1990
		N	Hausbeck <i>et al.</i> , 1992
<i>Saxifragaceae</i> (5)	<i>Hydrangea macrophylla</i>	N	Louro, 1996
		N	Marchoux <i>et al.</i> , 2000
	<i>Hydrangea</i> sp.	N	Tehrani <i>et al.</i> , 1990
		M	Mertelik <i>et al.</i> , 1996
	<i>Saxifraga</i> sp.	N	Rosello <i>et al.</i> , 1994
	<i>Saxifraga tricolor</i>	-	Edwardson and Christie, 1997
	<i>Tolmiea menziesii</i>	-	Adam and Kegler, 1994
<i>Scrophulariaceae</i> (21)	<i>Antirrhinum majus</i>	N	Tehrani <i>et al.</i> , 1990
		N	Vaira <i>et al.</i> , 1992
		N	Latham and Jones, 1997
		N	Marchoux <i>et al.</i> , 2000
	<i>Calceolaria crenatifolia</i>	-	Sether and De Angelis, 1991
	<i>Calceolaria herbaceihybrida</i>	-	Sether and De Angelis, 1991
	<i>Calceolaria hybrida</i>	N	Marchoux <i>et al.</i> , 2000
	<i>Calceolaria</i> sp.	N	Rosello <i>et al.</i> , 1994
	<i>Chelone</i> sp.	-	Adam and Kegler, 1994
	<i>Diascia barberae</i>	N	Marchoux <i>et al.</i> , 2000
	<i>Digitalis</i> sp.	-	Adam and Kegler, 1994
	<i>Linaria canadense</i>	N	Groves <i>et al.</i> , 2002
	<i>Mimulus</i> sp.	N	Marchoux <i>et al.</i> , 2000
	<i>Penstemon hartwegii</i>	N	Louro, 1996
	<i>Penstemon hirsutus</i>	-	Edwardson and Christie, 1997
	<i>Torenia fourrieri</i>	M	Marchoux <i>et al.</i> (unpublished)
	<i>Verbascum blattaria</i>	N	Chatzivassiliou <i>et al.</i> , 1998
	<i>Verbascum thaspus</i>	F	Stobbs <i>et al.</i> , 1992
	<i>Veronica agrestis</i>	N	Rosello <i>et al.</i> , 1994
		N	Marchoux <i>et al.</i> , 2000
	<i>Veronica chamaedrys</i>	N	Chatzivassiliou <i>et al.</i> , 1998
	<i>Veronica hederifolia</i>	N	Rosello <i>et al.</i> , 1994
		N	Marchoux <i>et al.</i> , 2000
	<i>Veronica officinalis</i>	N	Chatzivassiliou <i>et al.</i> , 1998
	<i>Veronica persica</i>	N	Chatzivassiliou <i>et al.</i> , 1998
		N	Marchoux <i>et al.</i> , 2000
	<i>Veronica</i> sp.	-	Adam and Kegler, 1994
<i>Solanaceae</i> (172)	<i>Atropa belladonna</i>	-	Edwardson and Christie, 1997
		M	Gognalons <i>et al.</i> , 1999
	<i>Browallia americana</i>	-	Edwardson and Christie, 1997
	<i>Browallia</i> sp.	N	Tehrani <i>et al.</i> , 1990
	<i>Browallia speciosa</i>	N	Daughtrey, 1996
	<i>Browallia speciosa-major</i>	N	Rosello <i>et al.</i> , 1994
	<i>Brunfelsia calycina</i>	M	Edwardson and Christie, 1997

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	<i>Brunfelsia</i> sp.	-	Edwardson and Christie, 1997
	<i>Capsicum annuum</i>	F	Allen and Matteoni, 1991
		N	Marchoux <i>et al.</i> , 1991
		N	Vaira <i>et al.</i> , 1992
		Ff	Hobbs <i>et al.</i> , 1993
		N	Kaminska and Korbin, 1994
		M	Verhoeven and Roenhorst, 1994
		N	Johnson <i>et al.</i> , 1996
		N	Louro, 1996
		N	Latham and Jones, 1997
		N	Roggero <i>et al.</i> , 1999a
	<i>Capsicum baccatum</i>	M	Gognalons <i>et al.</i> , 1999
	<i>Capsicum chacoense</i>	M	Gognalons <i>et al.</i> , 1999
	<i>Capsicum chinense</i> PI 159236	M	Boiteux and Nagata, 1993
		M	Hobbs <i>et al.</i> , 1994
		M	Gognalons <i>et al.</i> , 1999
		M	Roggero <i>et al.</i> , 1999a
	<i>Capsicum chinense</i> PI 152225	M	Hobbs <i>et al.</i> , 1994
		M	Roggero <i>et al.</i> , 1999a
	<i>Capsicum chinense</i> var. Habanero	N	Momol <i>et al.</i> , 2000
	<i>Capsicum frutescens</i> var. Tabasco	N	Momol <i>et al.</i> , 2000
	<i>Capsicum pubescens</i>	M	Gognalons <i>et al.</i> , 1999
	<i>Capsicum</i> sp.	N	Lisa <i>et al.</i> , 1990
		N	Vaira <i>et al.</i> , 1992
	<i>Cestrum aurantiarum</i>	N	Verhoeven and Roenhorst, 1998
	<i>Cestrum nocturnum</i>	N	Verhoeven and Roenhorst, 1998
	<i>Cestrum parquii</i>	-	Edwardson and Christie, 1997
	<i>Cestrum purpureum</i>	N	Verhoeven and Roenhorst, 1998
	<i>Cestrum rubrum</i>	N	Verhoeven and Roenhorst, 1998
	<i>Cyphomandra betacea</i>	-	Edwardson and Christie, 1997
	<i>Datura arborea</i>	-	Sether and De Angelis, 1991
	<i>Datura ferox</i>	-	Edwardson and Christie, 1997
	<i>Datura inoxia</i>	M	Gognalons <i>et al.</i> , 1999
	<i>Datura metel</i>	-	Edwardson and Christie, 1997
	<i>Datura meteloides</i>	-	Edwardson and Christie, 1997
	<i>Datura quercifolia</i>	M	Gognalons <i>et al.</i> , 1999
	<i>Datura</i> sp.	N	Marchoux <i>et al.</i> , 2000
	<i>Datura stramonium</i>	M	Marchoux <i>et al.</i> , 1991
		F	Stobbs <i>et al.</i> , 1992
		M	Verhoeven and Roenhorst, 1994
		F	Bautista <i>et al.</i> , 1995
	<i>Datura tatula</i>	N	Berling, 1991
	<i>Datura wrightii</i>	N	Berling, 1991
	<i>Dubosia leichhardtii</i>	N	Edwardson and Christie, 1997
	<i>Dubosia leichhardtii</i> x <i>myoporoides</i>	-	Edwardson and Christie, 1997
	<i>Dubosia myoporoides</i>	-	Edwardson and Christie, 1997
	<i>Hyoscyamus albus</i>	M	Gognalons <i>et al.</i> , 1999
	<i>Hyoscyamus niger</i>	N	Edwardson and Christie, 1997
	<i>Lycium ferocissimum</i>	-	Edwardson and Christie, 1997
	<i>Lycium procissimum</i>	N	Edwardson and Christie, 1997

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	<i>Lycopersicon chilense</i>	-	Gognalons <i>et al.</i> , 1999
	<i>Lycopersicon chmielewskii</i>	- M	Edwardson and Christie, 1997 Gognalons <i>et al.</i> , 1999
	<i>Lycopersicon esculentum</i>	N N N N N N N N N F N N	Cho <i>et al.</i> , 1986 Matteoni <i>et al.</i> , 1989 Marchoux <i>et al.</i> , 1991 Kaminska and Korbin, 1994 Camele <i>et al.</i> , 1995 Nagata <i>et al.</i> , 1995 Louro, 1996 Latham and Jones, 1997 Roca <i>et al.</i> , 1997 Sikora <i>et al.</i> , 1998 Allen <i>et al.</i> , 2000
	<i>Lycopersicon hirsutum</i>	F M	Kumar <i>et al.</i> , 1995 Edwardson and Christie, 1997
	<i>Lycopersicon parviflorum</i>	F M, F	Kumar <i>et al.</i> , 1995 Edwardson and Christie, 1997
	<i>Lycopersicon pennellii</i>	M, F M	Edwardson and Christie, 1997 Gognalons <i>et al.</i> , 1999
	<i>Lycopersicon peruvianum</i>	M	Edwardson and Christie, 1997
	<i>Lycopersicon pimpinellifolium</i>	N	Edwardson and Christie, 1997
	<i>Nicandra physaloides</i>	N N	Cho <i>et al.</i> , 1986 Cho <i>et al.</i> , 1989
	<i>Nicotiana acuminata</i>	N	Edwardson and Christie, 1997
	<i>Nicotiana alata</i>	N	Ruter and Gitaitis, 1993
	<i>Nicotiana angustifolia</i>	N	Berling, 1991
	<i>Nicotiana arentsii</i>	M	Gognalons <i>et al.</i> , 1999
	<i>Nicotiana atropurpureum</i>	-	Edwardson and Christie, 1997
	<i>Nicotiana attenuata</i>	M	Gognalons <i>et al.</i> , 1999
	<i>Nicotiana benavidesii</i>	M	Gognalons <i>et al.</i> , 1999
	<i>Nicotiana benthamiana</i>	F M M	Allen and Matteoni, 1991 Marchoux <i>et al.</i> , 1991 Verhoeven and Roenhorst, 1994
	<i>Nicotiana bigelovii</i>	-	Edwardson and Christie, 1997
	<i>Nicotiana bonariensis</i>	-	Best, 1968
	<i>Nicotiana calyciflora</i>	-	Cho <i>et al.</i> , 1987
	<i>Nicotiana caudigera</i>	-	Edwardson and Christie, 1997
	<i>Nicotiana chinensis</i>	-	Edwardson and Christie, 1997
	<i>Nicotiana clevelandii</i>	M	Marchoux <i>et al.</i> , 1991
	<i>Nicotiana cordifolia</i>	M	Gognalons <i>et al.</i> , 1999
	<i>Nicotiana cycliflora</i>	-	Berling, 1991
	<i>Nicotiana debneyi</i>	-	Edwardson and Christie, 1997
	<i>Nicotiana x edwardsonii</i>	-	Edwardson and Christie, 1997
	<i>Nicotiana excelsior</i>	-	Sether and De Angelis, 1991
	<i>Nicotiana exigua</i>	-	Best, 1968
	<i>Nicotiana fragans</i>	M	Gognalons <i>et al.</i> , 1999
	<i>Nicotiana glauca</i>	-	Edwardson and Christie, 1997
	<i>Nicotiana glutinosa</i>	M M	Marchoux <i>et al.</i> , 1991 Verhoeven and Roenhorst, 1994

Family	Species	Infection	Reference
	<i>Nicotiana goodspeedii</i>	-	Best, 1968
	<i>Nicotiana ingulba</i>	M	Gognalons <i>et al.</i> , 1999
	<i>Nicotiana knightiana</i>	M	Gognalons <i>et al.</i> , 1999
	<i>Nicotiana langsdorfii</i>	-	Edwardson and Christie, 1997
	<i>Nicotiana linearis</i>	M	Gognalons <i>et al.</i> , 1999
	<i>Nicotiana longiflora</i>	-	Edwardson and Christie, 1997
	<i>Nicotiana macrophylla</i>	-	Edwardson and Christie, 1997
	<i>Nicotiana maritima</i>	-	Edwardson and Christie, 1997
	<i>Nicotiana megalosiphon</i>	-	Edwardson and Christie, 1997
	<i>Nicotiana miersii</i>	- M	Sether and De Angelis, 1991 Gognalons <i>et al.</i> , 1999
	<i>Nicotiana multivalvis</i>	-	Sether and De Angelis, 1991
	<i>Nicotiana nesophylla</i>	M	Gognalons <i>et al.</i> , 1999
	<i>Nicotiana noctiflora</i>	M	Gognalons <i>et al.</i> , 1999
	<i>Nicotiana nudicaulis</i>	-	Best, 1968
	<i>Nicotiana occidentalis</i>	M	Verhoeven and Roenhorst, 1994
	<i>Nicotiana palmeri</i>	- M	Sether and De Angelis, 1991 Gognalons <i>et al.</i> , 1999
	<i>Nicotiana paniculata</i>	-	Edwardson and Christie, 1997
	<i>Nicotiana petunoides</i>	M	Gognalons <i>et al.</i> , 1999
	<i>Nicotiana plumbaginifolia</i>	-	Best, 1968
	<i>Nicotiana quadrivalvis</i>	-	Sether and De Angelis, 1991
	<i>Nicotiana raimondii</i>	M	Gognalons <i>et al.</i> , 1999
	<i>Nicotiana repanda</i>	- M	Sether and De Angelis, 1991 Gognalons <i>et al.</i> , 1999
	<i>Nicotiana rotundifolia</i>	- M	Sether and De Angelis, 1991 Gognalons <i>et al.</i> , 1999
	<i>Nicotiana rustica</i>	M	Verhoeven and Roenhorst, 1994
	<i>Nicotiana sanderae</i>	-	Edwardson and Christie, 1997
	<i>Nicotiana solanifolia</i>	-	Best, 1968
	<i>Nicotiana</i> sp.	N	Marchoux <i>et al.</i> , 2000
	<i>Nicotiana stocktonii</i>	M	Gognalons <i>et al.</i> , 1999
	<i>Nicotiana suaveolens</i>	-	Edwardson and Christie, 1997
	<i>Nicotiana sylvestris</i>	-	Edwardson and Christie, 1997
	<i>Nicotiana tabacum</i>	M N	Verhoeven and Roenhorst, 1994 Marchoux <i>et al.</i> , 2000
	<i>Nicotiana thyrsoiflora</i>	M	Gognalons <i>et al.</i> , 1999
	<i>Nicotiana tomentosa</i>	- M	Sether and De Angelis, 1991 Gognalons <i>et al.</i> , 1999
	<i>Nicotiana tomentosiformis</i>	-	Best, 1968
	<i>Nicotiana trigonophylla</i>	- M	Sether and De Angelis, 1991 Gognalons <i>et al.</i> , 1999
	<i>Nicotiana undulata</i>	-	Best, 1968
	<i>Nicotiana velutina</i>	-	Sether and De Angelis, 1991
	<i>Nicotiana wigandioides</i>	-	Best, 1968
	<i>Nolana</i> sp.	N	Tehrani <i>et al.</i> , 1990

Family	Species	Infection	Reference
	<i>Petunia hybrida</i>	N F M* N M* N	Tehrani <i>et al.</i> , 1990 Allen <i>et al.</i> , 1991 Marchoux <i>et al.</i> , 1991 Hausbeck <i>et al.</i> , 1992 Verhoeven and Roenhorst, 1994 Marchoux <i>et al.</i> , 2000
	<i>Petunia parodi</i>	M	Gognalons <i>et al.</i> , 1999
	<i>Petunia</i> sp.	N	Edwardson and Christie, 1997
	<i>Petunia violacea</i>	-	Sether and De Angelis, 1991
	<i>Physalis alkekengi</i>	-	Edwardson and Christie, 1997
	<i>Physalis angulata</i>	-	Sether and De Angelis, 1991
	<i>Physalis brasiliensis</i>	-	Sether and De Angelis, 1991
	<i>Physalis floridana</i>	M* -	Verhoeven and Roenhorst, 1994 Edwardson and Christie, 1997
	<i>Physalis franchetti</i>	N	Rosello <i>et al.</i> , 1994
	<i>Physalis heterophylla</i>	F	Stobbs <i>et al.</i> , 1992
	<i>Physalis hygrophylla</i>	-	Sether and De Angelis, 1991
	<i>Physalis ixocarpa</i>	N N	Valverde <i>et al.</i> , 1993 Diaz-Péres and Pappu, 2000
	<i>Physalis minima</i>	N	Edwardson and Christie, 1997
	<i>Physalis peruvianum</i> (= <i>P. peruviana</i>)	N	Edwardson and Christie, 1997
	<i>Physalis pruinosa</i>	-	Sether and De Angelis, 1991
	<i>Physalis pubescens</i>	-	Edwardson and Christie, 1997
	<i>Salpigbroa organifolia</i>	- M	Edwardson and Christie, 1997 Gognalons <i>et al.</i> , 1999
	<i>Salpiglossis sinuata</i>	-	Edwardson and Christie, 1997
	<i>Salpiglossis</i> sp.	- N	Sether and De Angelis, 1991 Edwardson and Christie, 1997
	<i>Saracha saltomata</i>	M	Gognalons <i>et al.</i> , 1999
	<i>Schizanthus pinnatus</i>	-	Edwardson and Christie, 1997
	<i>Schizanthus</i> sp.	N N	Verhoeven and Roenhorst, 1998 Marchoux <i>et al.</i> , 2000
	<i>Solanum aculeatisimum</i>	-	Edwardson and Christie, 1997
	<i>Solanum aethiopicum</i>	M	Gognalons <i>et al.</i> , 1999
	<i>Solanum americanum</i>	F	Stobbs <i>et al.</i> , 1992
	<i>Solanum atriciplicifolium</i>	N	Edwardson and Christie, 1997
	<i>Solanum atrifolium</i>	-	Adam and Kegler, 1994
	<i>Solanum aviculare</i>	N	Edwardson and Christie, 1997
	<i>Solanum capsicastrum</i>	N	Edwardson and Christie, 1997
	<i>Solanum carolinense</i>	N F N	Bond <i>et al.</i> , 1983 Stobbs <i>et al.</i> , 1992 Johnson <i>et al.</i> , 1995
	<i>Solanum ciliatum</i>	-	Berling 1991
	<i>Solanum dulcamara</i>	F N N	Stobbs <i>et al.</i> , 1992 Grieco <i>et al.</i> , 2000 Marchoux <i>et al.</i> , 2000
	<i>Solanum eleagnifolium</i>	M	Gognalons <i>et al.</i> , 1999
	<i>Solanum grandiflorum</i>	-	Sether and De Angelis, 1991

Family	Species	Infection	Reference
	<i>Solanum indicum</i>	M	Gognalons <i>et al.</i> , 1999
	<i>Solanum integrifolium</i>	M	Gognalons <i>et al.</i> , 1999
	<i>Solanum laciniatum</i>	-	Berling, 1991
	<i>Solanum lycocarpum</i>	-	Edwardson and Christie, 1997
	<i>Solanum mammosum</i>	N	Edwardson and Christie, 1997
	<i>Solanum marginatum</i>	-	Edwardson and Christie, 1997
	<i>Solanum melongena</i>	N	Marchoux <i>et al.</i> , 1991
		N	Louro, 1996
		N	Latham <i>et al.</i> , 1997
		N	Parisi <i>et al.</i> , 1998
	<i>Solanum miniatum</i>	-	Edwardson and Christie, 1997
	<i>Solanum minimatum</i>	-	Adam and Kegler, 1994
	<i>Solanum muricatum</i>	N	Marchoux <i>et al.</i> , 2000
	<i>Solanum nigrum</i>	N	Cho <i>et al.</i> , 1986
		N	Marchoux <i>et al.</i> , 1991
		F	Stobbs <i>et al.</i> , 1992
		N	Johnson <i>et al.</i> , 1995
		N	Latham and Jones, 1997
		N	Wilson, 1998
		N	Grieco <i>et al.</i> , 2000
	<i>Solanum nodiflorum</i>	-	Edwardson and Christie, 1997
	<i>Solanum palinacanthum</i>	-	Berling, 1991
	<i>Solanum pocote</i>	-	Berling, 1991
	<i>Solanum pseudocapsicum</i>	-	Berling, 1991
	<i>Solanum ptycanthum</i>	F	Stobbs <i>et al.</i> , 1992
	<i>Solanum quitoense</i>	N	Marchoux <i>et al.</i> , 2000
	<i>Solanum rantonnetii</i>	N	Dellavalle <i>et al.</i> , 1999
	<i>Solanum robustum</i>	-	Edwardson and Christie, 1997
	<i>Solanum sanitwongsii</i>	-	Edwardson and Christie, 1997
	<i>Solanum seaforthianum</i>	N	Edwardson and Christie, 1997
	<i>Solanum sodomaeum</i>	-	Edwardson and Christie, 1997
	<i>Solanum spinosissimum</i>	-	Sether and De Angelis, 1991
	<i>Solanum triflorum</i>	-	Cho <i>et al.</i> , 1987
	<i>Solanum trifolium</i>	-	Adam and Kegler, 1994
	<i>Solanum tuberosum</i>	N	Nagata <i>et al.</i> , 1995
		N	Louro, 1996
		N	Latham and Jones, 1997
	<i>Solanum viarum</i>	-	Berling, 1991
	<i>Streptosolen jamesonii</i>	-	Edwardson and Christie, 1997
<i>Tropaeolaceae</i> (2)	<i>Tropaeolum majus</i>	N	Cho <i>et al.</i> , 1986
		N	Cho <i>et al.</i> , 1989
		N	Marchoux <i>et al.</i> , 2000
	<i>Tropaeolum</i> sp.	-	Sether and De Angelis, 1991
<i>Ulmaceae</i> (1)	<i>Ulmus pumila</i> var. <i>arborea</i>	M	Mertelik <i>et al.</i> , 1996
<i>Urticaceae</i> (4)	<i>Parietaria officinalis</i>	N	Lavina <i>et al.</i> , 1996
	<i>Pilea pumila</i>	F	Stobbs <i>et al.</i> , 1992

Family	Species	Infection	Reference
	<i>Urtica dioica</i>	-	Edwardson and Christie, 1997
	<i>Urtica</i> sp.	N	Marchoux <i>et al.</i> , 2000
Valerianaceae (2)	<i>Centranthus ruber</i>	N	Hausbeck <i>et al.</i> , 1992
	<i>Valerianella olitoria</i>	N	Vaira <i>et al.</i> , 1992c
		N	Marchoux <i>et al.</i> , 2000
Verbenaceae (10)	<i>Clerodendron thomsoniae</i>	N	Marchoux <i>et al.</i> , 2000
	<i>Lantana</i> sp.	N	Hausbeck <i>et al.</i> , 1992
	<i>Verbena alternifolia</i>	M	Marchoux <i>et al.</i> (unpublished)
	<i>Verbena brasiliensis</i>	N	Bond <i>et al.</i> , 1983
	<i>Verbena bastata</i>	F	Stobbs <i>et al.</i> , 1992
	<i>Verbena hybrida</i>	-	Edwardson and Christie, 1997
	<i>Verbena litoralis</i>	N	Cho <i>et al.</i> , 1986
	<i>Verbena officinalis</i>	N	Chatzivassiliou <i>et al.</i> , 1998
		N	Grieco <i>et al.</i> , 2000
		N	Marchoux <i>et al.</i> , 2000
	<i>Verbena rigida</i>	-	Sether and De Angelis, 1991
	<i>Verbena</i> sp.	-	Best, 1968
		F	Stobbs <i>et al.</i> , 1992
Violaceae (5)	<i>Viola cornuta</i>	N	Marchoux <i>et al.</i> , 2000
	<i>Viola odorata</i>	M	Edwardson and Christie, 1997
	<i>Viola sororia</i>	-	Sether and De Angelis, 1991
	<i>Viola</i> sp.	N	Marchoux <i>et al.</i> , 2000
	<i>Viola x wittrockiana</i>	N	Ruter and Gitaitis, 1993
Zygophyllaceae (1)	<i>Tribulus terrestris</i>	-	Cho <i>et al.</i> , 1987

M = experimental transmission and positive in ELISA test; N = natural infections; F = transmitted by *Frankliniella occidentalis*; Ff = transmitted by *Frankliniella fusca*; T = transmitted by *Thrips tabaci*; - = no information given; M* = experimental transmission with development of local lesions; N* = positive bioassay.

Table 3. Class Monocotyledones

Family	Species	Infection	Reference
Agavaceae (=Dracnaceae)(11)	<i>Cordyline</i> sp.	M	Edwardson and Christie, 1997
	<i>Cordyline terminalis</i>	N	Cho <i>et al.</i> , 1986
	<i>Dracaena deremensis</i>	N	Kaminska and Korbin, 1994
	<i>Dracaena draco</i>	N	Louro, 1996
	<i>Dracaena fragrans</i>	N	Tehrani <i>et al.</i> , 1990
	<i>Dracaena fragrans</i> var. <i>massangeana</i>	N	Kaminska and Korbin, 1994
	<i>Dracaena marginata</i>	N	Tehrani <i>et al.</i> , 1990
	<i>Dracaena marginata</i> bicolor	N	Kaminska and Korbin, 1994
	<i>Dracaena</i> sp.	N	Hausbeck <i>et al.</i> , 1992
	<i>Yucca aloifolia</i>	N	Kaminska and Korbin, 1994
	<i>Yucca baccata</i>	N	Tehrani <i>et al.</i> , 1990

Family	Species	Infection	Reference	
<i>Amaryllidaceae</i> (30)	<i>Alstroemeria aurantiaca</i>	-	Adam and Kegler, 1994	
	<i>Alstroemeria hybrida</i>	N	Lathman and Jones, 1997	
	<i>Alstroemeria</i> sp.	N N N N	Tehrani <i>et al.</i> , 1990 Kaminska and Korbin, 1994 Verhoeven and Roenhorst, 1994 Marchoux <i>et al.</i> , 2000	
	<i>Amaryllis aulicum</i>	-	Edwardson and Christie, 1997	
	<i>Amaryllis belladonna</i>	N	Derks and Lemmers, 1996	
	<i>Amaryllis hybrida</i>	-	Edwardson and Christie, 1997	
	<i>Amaryllis reginae</i>	N	Edwardson and Christie, 1997	
	<i>Amaryllis rutilum</i>	N	Edwardson and Christie, 1997	
	<i>Amaryllis</i> sp.	N	Edwardson and Christie, 1997	
	<i>Amaryllis x nerine</i>	N	Edwardson and Christie, 1997	
	<i>Clivia miniata</i>	M	Edwardson and Christie, 1997	
	<i>Clivia</i> sp.	N	Verhoeven and Roenhorst, 1998	
	<i>Crinum giganteum</i>	-	Edwardson and Christie, 1997	
	<i>Crinum imbricatum</i>	-	Edwardson and Christie, 1997	
	<i>Eucharis grandiflora</i>	M	Marchoux <i>et al.</i> (unpublished)	
	<i>Eucharis</i> sp.	N	Verhoeven and Roenhorst, 1998	
	<i>Hippeastrum aulicum</i>	-	Berling, 1991	
	<i>Hippeastrum x hybridum</i>	N	Marchoux <i>et al.</i> , 2000	
	<i>Hippeastrum hybride</i>	N	Verhoeven and Roenhorst, 1998	
	<i>Hippeastrum reginae</i>	-	Berling, 1991	
	<i>Hippeastrum rutilum</i>	-	Berling, 1991	
	<i>Hippeastrum</i> sp.	N N	Verhoeven and Roenhorst, 1994; Derks and Lemmers, 1996	
	<i>Hymenocallis johnsonii</i>	-	Edwardson and Christie, 1997	
	<i>Hymenocallis occidentalis</i>	-	Edwardson and Christie, 1997	
	<i>Hymenocallis pauciflora</i>	-	Edwardson and Christie, 1997	
	<i>Hymenocallis solandriiflora</i>	-	Edwardson and Christie, 1997	
	<i>Leptochiton quitoensis</i>	-	Edwardson and Christie, 1997	
	<i>Nerine bowdenii</i>	N	Derks and Lemmers, 1996	
	<i>Nerine</i> sp.	N M	OEPP, 1991 Edwardson and Christie, 1997	
	<i>Vallota</i> sp.	N	Edwardson and Christie, 1997	
	<i>Araceae</i> (27)	<i>Aglaonema commutatum</i>	N	Kaminska and Korbin, 1994
		<i>Aglaonema</i> sp.	M	Edwardson and Christie, 1997
		<i>Anthurium andreaeanum</i>	- N	Cho <i>et al.</i> , 1989 Verhoeven and Roenhorst, 1994
<i>Anthurium hookeri</i>		N	Mertelik <i>et al.</i> , 1996	
<i>Anthurium scherzerianum</i>		N	Verhoeven and Roenhorst, 1994	
<i>Anthurium</i> sp.		N	Verhoeven and Roenhorst, 1994	
<i>Arum maculatum</i>		N	Chatzivassiliou <i>et al.</i> , 1998	
<i>Arum palaestinum</i>		N	Marchoux <i>et al.</i> , 2000	
<i>Calla palustris</i>		-	Edwardson and Christie, 1997	
<i>Calla</i> sp.		-	Adam and Kegler, 1994	

Family	Species	Infection	Reference
	<i>Dieffenbachia</i> sp.	N N N	Verhoeven and Roenhorst, 1994; Kaminska and Korbin, 1994; Chatzivassiliou <i>et al.</i> , 2000
	<i>Epipremnum aureum</i>	N	Kaminska and Korbin, 1991
	<i>Epipremnum pinnatum</i>	N	Kaminska and Korbin, 1994
	<i>Philodendron rubra</i>	N	Kaminska and Korbin, 1994
	<i>Philodendron tuxla</i>	N	Kaminska and Korbin, 1994
	<i>Pothos</i> sp.	M	Marchoux <i>et al.</i> (unpublished)
	<i>Richardia africana</i> (see <i>Zantedeschia aethiopica</i>)	-	Sether and De Angelis, 1991
	<i>Richardia scabra</i>	-	Sether and De Angelis, 1991
	<i>Spathiphyllum floribundum</i>	N	Kaminska and Korbin, 1994
	<i>Spathiphyllum</i> sp.	N	Verhoeven and Roenhorst, 1994
	<i>Syngonium podophyllum</i>	-	Adam and Kegler, 1994
	<i>Zantedeschia aethiopica</i>	N	Kaminska and Korbin, 1994
	<i>Zantedeschia albo-maculata</i>	-	Berling, 1991
	<i>Zantedeschia elliottiana</i>	-	Berling, 1991
	<i>Zantedeschia melanoleuca</i>	-	Berling, 1991
	<i>Zantedeschia rehmannii</i>	-	Berling, 1991
	<i>Zantedeschia</i> sp.	N	Chatzivassiliou <i>et al.</i> , 2000
<i>Arecaceae</i> (= <i>Palmae</i>) (1)	<i>Chamaedorea costaricana</i>	N	Kaminska and Korbin, 1994
<i>Asparagaceae</i> (1)	<i>Asparagus setaceus</i>	N	Kaminska and Korbin, 1994
<i>Bromeliaceae</i> (3)	<i>Ananas comosus</i>	N	Edwardson and Christie, 1997
	<i>Bromelia achmea</i>	N	Verhoeven and Roenhorst, 1998
	<i>Guzmania</i> sp.	-	Edwardson and Christie, 1997
<i>Xanthorrhoeaceae</i> (= <i>Calectasiaceae</i>) (1)	<i>Calectasia cyanea</i>	N	Latham and Jones, 1997
<i>Cannaceae</i> (1)	<i>Canna</i> sp.	-	Sether and De Angelis, 1991
<i>Commelinaceae</i> (2)	<i>Tradescantia albiflora</i>	N	Chatzivassiliou <i>et al.</i> , 2000
	<i>Tradescantia</i> sp.	-	Adam and Kegler, 1994
<i>Cyperaceae</i> (2)	<i>Cyperus esculentus</i>	F	Stobbs <i>et al.</i> , 1992
	<i>Cyperus rotundus</i>	N	Chatzivassiliou <i>et al.</i> , 1998
<i>Iridaceae</i> (7)	<i>Belamcanda chinensis</i>	N N, T	Sether and De Angelis, 1991 Yamamoto and Ohata, 1997
	<i>Freesia x hybrida</i>	N N	Latham and Jones, 1997 Marchoux <i>et al.</i> , 2000
	<i>Gladiolus x grandiflorus</i>	N	Latham and Jones, 1997
	<i>Gladiolus hybridum</i>	M	Edwardson and Christie, 1997

Family	Species	Infection	Reference
<i>Liliaceae</i> (= <i>Colchicaceae</i>) (14)	<i>Gladiolus</i> sp.	N N N	Derks and Lemmers, 1996 Louro, 1996 Marchoux <i>et al.</i> , 2000
	<i>Iris</i> sp.	N	Derks and Lemmers, 1996
	<i>Agapanthus</i> sp.	-	Berling, 1991
	<i>Agapanthus umbellatus</i>	M	Edwardson and Christie, 1997
	<i>Allium cepa</i>	N	Louro, 1996
	<i>Allium porrum</i>	M	Marchoux <i>et al.</i> (unpublished)
	<i>Allium sativum</i>	M	Marchoux <i>et al.</i> (unpublished)
	<i>Chlorophytum elatum</i>	M	Marchoux <i>et al.</i> (unpublished)
	<i>Gloriosa rothschildiana</i>	N	Verhoeven and Roenhorst, 1998
	<i>Lilium longiflorum</i>	N	Tehrani <i>et al.</i> , 1990
	<i>Lilium</i> sp.	N	Hausbeck <i>et al.</i> , 1992
	<i>Lilium tigrinum</i>	- N	Best, 1968 Marchoux <i>et al.</i> , 2000
	<i>Maianthemum canadense</i>	F	Stobbs <i>et al.</i> , 1992
	<i>Ornithogalum thyrsoides</i>	N	Rosello <i>et al.</i> , 1994
<i>Robdea</i> sp.	-	Adam and Kegler, 1994	
<i>Ruscus hypoglossum</i>	N	Louro, 1996	
<i>Marantaceae</i> (4)	<i>Maranta leuconeura</i> var. <i>kerchoveana</i>	N	Kaminska and Korbin, 1994
	<i>Maranta</i> sp.	N	Kaminska and Korbin, 1991
	<i>Maranta leuconeura</i> var. <i>tricolor</i>	N N	Kaminska and Korbin, 1994 Verhoeven and Roenhorst, 1998
	<i>Martynia annua</i>	-	Berling, 1991
<i>Orchidaceae</i> (4)	<i>Cymbidium</i> sp.	N	Tehrani <i>et al.</i> , 1990
	<i>Dendrobium</i> sp.	-	Berling, 1991
	<i>Oncidium</i> sp.	N	Hu <i>et al.</i> , 1992
	<i>Palaenopsis</i> sp.	N	Verhoeven and Roenhorst, 1998
<i>Poaceae</i> (= <i>Gramineae</i>) (11)	<i>Avena fatua</i>	N	Chatzivassiliou <i>et al.</i> , 1998
	<i>Cynodon dactylon</i>	N	Jorda <i>et al.</i> , 1995
	<i>Digitaria sanguinalis</i>	N	Grieco <i>et al.</i> , 2000
	<i>Echinochloa colonum</i>	N	Rosello <i>et al.</i> , 1994
	<i>Eleusine indica</i>	-	Sether and De Angelis, 1991
	<i>Holcus lanatus</i>	N	Grieco <i>et al.</i> , 2000
	<i>Lolium perenne</i>	N	Chatzivassiliou <i>et al.</i> , 1998
	<i>Poa annua</i>	N	Rosello <i>et al.</i> , 1994
	<i>Cetaria italica</i>	M	Marchoux <i>et al.</i> (unpublished)
	<i>Cetaria verticilliata</i>	M	Marchoux <i>et al.</i> (unpublished)
	<i>Setaria viridis</i>	N	Chatzivassiliou <i>et al.</i> , 1998

M = experimental transmission and positive in ELISA test; N = natural infections; F = transmitted by *Frankliniella occidentalis*; Ff = transmitted by *Frankliniella fusca*; T = transmitted by *Thrips tabaci*; - = no information given; M* = experimental transmission with development of local lesions; N* = positive bioassay.

REFERENCES

- Adam G., Kegler H., 1994. Tomato spotted wilt virus and related tospoviruses. *Archives of Phytopathology*, **28**: 483-504.
- Adam G., Lesemann D.E., Vetten H.J., 1991. Monoclonal antibodies against tomato spotted wilt virus: characterization and application. *Annals of Applied Biology* **118**: 87-104.
- Adam G., Roggero P., Malavasi F., Milne R.G., Papa G., 1995. Approach to a general tospovirus assay using antibodies to purified tomato spotted wilt tospovirus G proteins. *Bulletin OEPP/EPPO Bulletin* **25**: 247-257.
- Allen C.T., Kharbouthli M.S., McAllister C.D., Coker C.M., Cooper P.E., 2000. Thrips, weeds and tomato spotted wilt virus. *Research Series of the Arkansas Agricultural Experiment Station* **475**: 11-16.
- Allen W.R., Matteoni J.A., 1988. Cyclamen ringspot: epidemics in Ontario greenhouses caused by the tomato spotted wilt virus. *Canadian Journal of Plant Pathology* **10**: 41-46.
- Allen W. R., Matteoni J.A., 1991. Petunia as an indicator plant for use by growers to monitor for thrips carrying the tomato spotted wilt virus in greenhouses. *Plant Disease* **75**: 78-82.
- Anonymous, 1991. Plantes hôtes du Tomato Spotted Wilt Virus aux Pays-Bas. Service de la Protection des Végétaux, Wageningen, OEPP note d'information n°520/05.
- Aramburu J., Marti M., 2003. The occurrence in north-east Spain of a variant of Tomato spotted wilt virus (TSWV) that breaks resistance in tomato (*Lycopersicon esculentum*) containing the *Su-5* gene. *Plant Pathology* **52**: 407.
- Bambacioni V.M., 1976. Botanica sistematica. Liguori, Napoli, Italy.
- Bandla M.D., Westcot D.M., Chenault K.D., Ulman D.E., German T.L., Sherwood J.L., 1994. Use of monoclonal antibody to the nonstructural protein encoded by the small RNA of tomato spotted wilt tospovirus to identify viruliferous thrips. *Phytopathology* **84**: 1247-1431.
- Bautista R.C., Mau R.F.L., Cho R.J., Custer D., 1995. Potential of tomato spotted wilt tospovirus plant hosts in Hawaii as virus reservoirs for transmission by *Frankliniella occidentalis* (Thysanoptera: Thripidae). *Phytopathology* **85**: 953-958.
- Berling A., 1991. Le TSWV, un fléau qui se répand. Symptômes et plantes hôtes. *Phytoma* **431**: 43-45.
- Bertaccini A., Bellardi M.G., 1990. Tomato spotted wilt virus infecting gloxinia in Italy. *Phytopathologia Mediterranea* **29**: 205-208.
- Best R.J., 1968. Tomato spotted wilt virus. *Advanced Virus Research* **13**: 65-146.
- Boiteux L.S., Nagata T., 1993. Susceptibility of *Capsicum chinense* PI159236 to tomato spotted wilt virus isolates in Brazil. *Plant Disease* **77**: 210.
- Bond W.P., Whitman H.K., Blanck L.L., 1983. Indigenous weeds as reservoirs of tomato spotted wilt virus in Louisiana. *Phytopathology* **73**: 499.
- Brittlebank C.C., 1919. Tomato diseases. *Journal of Department of Agriculture of Victoria Australia* **17**: 231-235.
- Bitterlich I., MacDonald L.S., 1993. The prevalence of tomato spotted wilt virus in weeds and crops in southwestern British Columbia. *Canadian Plant Disease Survey* **73**: 137-142.
- Camele I., Rana G.L., De Stradis A., Palumbo M., 1995. Nuove epifizie del virus della bronzatura del pomodoro (TSWV) in Basilicata e Puglia. *Petria* **5**: 137-142.
- Chatzivassiliou E.K., Livieratos I., Jenser G., Katis N.I., 2000. Ornamental plants and thrips populations associated with tomato spotted wilt virus in Greece. *Phytoparasitica* **28**: 1-8.
- Chatzivassiliou E.K., Mpoumpourakas I., Drossos E., Eleftherohorinos I., Jenser G., Peters D., Katis N.I., 1998. A different prevalence of weeds susceptible to tomato spotted wilt virus in tobacco and greenhouse cultivated crops in Greece. In: Peters D. and Golbach R. (eds.). Recent progress on tospovirus research, pp. 98. Wageningen Agricultural University, Section Virology.
- Cho J.J., Mau R.F.L., German T.L., Hartmann R.W., Yudin L.S., Gonsalves D., Provvidenti R., 1989. A multidisciplinary approach to management of Tomato spotted wilt virus in Hawaii. *Plant Disease* **73**: 375-383.
- Cho J.J., Mau R.F.L., Gonsalves D., Mitchell W.C., 1986. Reservoir weed hosts of tomato spotted wilt virus. *Plant Disease* **70**: 1014-1017.
- Cho J.J., Mau R.F.L., Hamasaki R.T., Gonsalves D., 1998. Detection of tomato spotted wilt virus in individual thrips by enzyme-linked immunosorbent assay. *Phytopathology* **78**: 1348-1352.
- Cho J.J., Mau R.F.L., Mitchell W.C., Gonsalves D., Yudin L.S., 1987. Host list of susceptible to tomato spotted wilt virus (TSWV). Research Extension Series 078, 1-10.
- Costa A.S., Forster R., 1942. Lista de hospedeiras de virus viracabeca. *Bragantia* **2**: 83-91.
- De Avila A.C., Huguenot C., Resende R.O., Kitajima E.W., Goldbach R.W., Peters D., 1990. Serological differentiation of 20 isolates of tomato spotted wilt virus. *Journal of General Virology* **71**: 2801-2807.
- Daughtrey M.L., 1996. Detection and identification of tospoviruses in greenhouses. *Acta Horticulturae* **431**: 90-105.
- Díaz-Pérez J.C., Pappu H.R., 2000. First report of tomato spotted wilt virus infection of tomatillo in Georgia. *Plant Disease* **84**: 1155.
- Dellavalle G., Ciuffo M., Roggero P., Lisa V., Minuto A., Minuto G., Rapetti S., 1999. Infezioni da Tospovirus in Delfinio, Gazania, Margherita, Sedano, Scorzobianca e *Solanum rantonnetii* in Liguria. *Informatore Fitopatologico* **49**: 63-64.
- Derks A.F.L.M., Lemmers M.E.C., 1996. Detection of tospoviruses in bulbous crops and their transmissibility by vegetative propagation. *Acta Horticulturae* **432**: 132-139.
- Edwardson J.R., Christie R.G., 1997. Tospovirus. In: Virus infecting pepper and other solanaceous crops. Vol. 2, pp. 687-719, University of Florida, Agricultural Experiment Station, Gainesville, USA.
- Elliott R.M., Bouloy C., Calsher C.H., Goldbach R., Moyer J.T., Nichol S.T., Petterson R., Plyusnin A., Schmaljohn C.S., 2000. Family *Bunyaviridae*. In: Van Regenmortel M.H.V., Fauquet C.M., Bishop D.H.L., Carstens E.B., Estes M.K., Lemon S.M., Maniloff J., Mayo M.A., McGeoch D.J., Pringle C.R., Wickner R.B. (eds.). Virus Taxonomy. VIIth Report of the International Committee on Taxonomy of Viruses, pp. 599-621. Academic Press, San Diego, USA.
- Engler A., Diels L., 1936. Syllabus der Pflanzenfamilien. Gebrüder Boruttraeger, Berlin, Germany.

- EPPO/CABI, 1997. Tomato spotted wilt tospovirus. In: Quarantine pests for Europe, 2nd ed., pp. 1379-1387. CAB International, Wallingford, U.K.
- German, T.L., Adkins S., Witherell A., Richmond K.E., Knaack W.R., Willis D.K., 1995. Infection of *Arabidopsis thaliana* ecotype Columbia by tomato spotted wilt virus. *Plant Molecular Biology Reporter* **13**: 110-117.
- Gibbs A.J., 1990. Tomato spotted wilt tospovirus. Plant Viruses Online (<http://image.fs.uidaho.edu/vidr/descr837.htm>)
- Gognalons P., Gebre-Selassie K., Marchoux G., 1996. Le tomato spotted wilt virus dans le sud de la France. *Phytoma* **489**: 52-56.
- Gognalons P., Gebre-Selassie K., Marchoux G., 1999. La gamme d'hôtes du TSWV continue a s'étendre. De nouvelles Solanacées sont touchées. *Phytoma* **512**: 47-50.
- Golnaraghi A.R., Shahraeen N., Pourrahim R., Farzadfar S., Ghasemi A., 2003. First report of the natural occurrence of eight viruses affecting soybeans in Iran. *New Disease Report*, (<http://www.bspp.org.uk/ndr/july2002/2002-7.asp>)
- Gonsalves D., Trujillo E., 1986. Tomato spotted wilt virus in papaya and detection of the virus by ELISA. *Plant Disease* **70**: 501-506.
- Greuter W., Barrie F., Burdet H.M., Chaloner W.G., Demoulin V., Hawksworth D.L., Jorgensen P.M., Nicolson D.H., Silva P.C., Trehane P., McNeill J., 1994. International Code of Botanical Nomenclature (Tokyo Code). Regnum Vegetabile No. 131. Koeltz Scientific Books, Koenigstein.
- Grieco P.D., Conte D., Munno I., Nuzzaci M., De Stradis A., 2000. Presenza del virus della bronzatura del pomodoro (TSWV) su piante spontanee e infestanti nell'area del metapontino in Basilicata. *Informatore Fitopatologico* **50**: 43-46.
- Groves R.L., Kennedy G.G., Walgenbach J.F., Moyer J.W., 1998. Inoculation of Tomato spotted wilt virus into cotton. *Plant Disease* **82**: 959.
- Groves R.L., Walgenbach J.F., Moyer J.W., Kennedy G.G., 2002. The role of weed hosts and tobacco thrips, *Frankliniella fusca*, in the epidemiology of tomato spotted wilt virus. *Plant Disease* **86**: 573-582.
- Halliwell R.S., 1988. Tomato spotted wilt virus infection of cultivated malvaceous sp. and other crop plants in south Texas. *Phytopathology* **78**: 627.
- Hausbeck M.K., Gildow F.E., 1991. Report of tomato spotted wilt virus on thanksgiving cactus. *Plant Disease* **75**: 215.
- Hausbeck M.K., Welliver R.A., Derr M.A., and Gildow F.E. 1992. Tomato spotted wilt virus survey among greenhouse ornamentals in Pennsylvania. *Plant Disease* **76**: 795-800.
- Hobbs H.A., Black L.L., Story R.N., Valverde R.A., Bond W.P., Gatti J.M., Scaffer D.O., Johnson R.R., 1993. Transmission of tomato spotted wilt virus from pepper and three weed hosts by *Frankliniella fusca*. *Plant Disease* **77**: 797-799.
- Hobbs H.A., Black L.L., Johnson R.R., Valverde R.A., 1994. Differences in reactions among tomato spotted wilt virus isolates to three resistant *Capsicum chinense* lines. *Plant Disease* **78**: 1220.
- Holcomb, G.E., Valverde R.A., Sim J., Nuss J., 1999. First report on natural occurrence of tomato spotted wilt tospovirus in basil (*Ocimum basilicum*). *Plant Disease* **83**: 966.
- Holmes F.O., 1939. Handbook of Phytopathogenic Viruses. Burgess, Minneapolis, USA.
- Hu J.S., Wang M., Ferreira S., Ogata D., 1992. Tomato spotted wilt virus on *Oncidium* orchids in Hawaii. *Plant Disease* **76**: 426.
- Huguenot C., Dobbelsteen G., Van Den Haan P., De Wagemakers C.A.M., Drost G.A., Osterhaus A.D.M.E., Peters D., 1990. Detection of tomato spotted wilt virus using monoclonal antibodies and riboprobes. *Archives of Virology* **100**: 47-62.
- Hull R., 2002. Matthews' Plant Virology. Fourth edition, Academic Press, UK.
- Johnson R.R., Black L.L., Hobbs H.A., Valverde R.A., Story R.N., Bond W.P., 1995. Association of *Frankliniella fusca* and three winter weeds with tomato spotted wilt virus in Louisiana. *Plant Disease* **79**: 572-576.
- Johnson, W.C., Todd J.W., Culbreath A.K., Mullinix B.G., 1996. Role of warm-season weeds in spotted wilt epidemiology in the southeastern coastal plain. *Agronomy Journal* **88**: 928-933.
- Jorda C., Ortega A., Juarez M., 1995. New hosts of tomato spotted wilt virus. *Plant Disease* **79**: 538.
- Kaminska M., Korbin M., 1991. The occurrence of tomato spotted wilt virus in Polish greenhouses. *Phytopathologica Polonica* **12**: 9-14.
- Kaminska M., Korbin M., 1994. New natural hosts of tomato spotted wilt virus. *Acta Horticulturae*, **377**: 123-128.
- Kumar N.K.K., Ullman D.E., Cho J.J., 1995. *Frankliniella occidentalis* (Thysanoptera: Thripidae) landing and resistance to tomato spotted wilt tospovirus among *Lycopersicon* accessions with additional comments on *Thrips tabaci* (Thysanoptera: Thripidae). *Environmental Entomology* **24**: 513-520.
- Latham L.J., Jones R.A. C., 1997. Occurrence of tomato spotted wilt tospovirus in native flora, weeds, and horticultural crops. *Australasian Journal of Agriculture Research* **48**: 359-369.
- Lavina A., Aramburu A., Moriones E., 1996. Occurrence of tomato spotted wilt and cucumber mosaic viruses in field-grown tomato crops and associated weeds in northeastern Spain. *Plant Pathology* **45**: 837-842.
- Lavina A., Batlle A., 1993. First report of tomato spotted wilt virus infection of *Ficus* species in Spain. *Plant Disease* **77**: 536.
- Law M.D., Moyer J.W., 1990. A tomato spotted wilt-like virus with a serologically distinct N protein. *Journal of General Virology* **71**: 933-938.
- Lemmetty A., Lindqvist I., 1993. *Thrips tabaci* Lind. (Thysanoptera thripidae), another vector for tomato spotted wilt virus in Finland. *Agricultural Science in Finland* **2**: 189-194.
- Lisa V., Vaira A.M., Milne R.G., Luisoni E., Rapetti S., 1990. Tomato spotted wilt in cinque specie coltivate in Liguria. *Informatore Fitopatologico* **40**: 34-41.
- Louro D., 1996. Detection and identification of tomato spotted wilt virus and impatiens necrotic spot virus in Portugal. *Acta Horticulturae* **431**: 99-105.
- Manoussopoulos I.N., Chatzivassiliou E.K., Smyrnioudis I.N., Katis N.I., 1999. Two diseases of *Dimorphotheca* caused by lettuce mosaic potyvirus and tomato spotted wilt tospovirus. *Phytoparasitica* **27**: 227-232.
- Mason G., Roggero P., Tavella L., 2003. Detection of *Tomato spotted wilt virus* in its vector *Frankliniella occidentalis* by reverse transcription-polymerase chain reaction. *Journal of Virological Methods* **109**: 69-73.
- Marchoux G., Gebre-Selassie K., Villeveille M., 1991. Detection of tomato spotted wilt virus and transmission by *Frankliniella occidentalis* in France. *Plant Pathology* **40**: 347-351.

- Marchoux G., Hostachy B., Gebre-Selassie K., Gognalons P., 2000. Tomato spotted wilt virus: hôtes et méthodes de lutte. *PHM - Revue Horticole* **418**: 46-52.
- Martelli G.P., Russo M., 1984. Use of thin sectioning for visualization and identification of plant viruses. *Methods in Virology* **8**: 143-224.
- Mertelík J., Götzová B., Mokrá V., 1996. Epidemiological aspects of tomato spotted wilt virus infection in the Czech republic. *Acta Horticulturae* **432**: 368-375.
- Milne R.J., 1993. Electron microscopy of *in vitro* preparations. In: Matthews R.E.F. (ed.) *Diagnosis of Plant Virus Diseases*, pp. 215-251. CRC Press, Boca Raton, USA.
- Momol M.T., Pappu H.R., Dankers W., Rich J.R., Olson S.M., 2000. First report of tomato spotted wilt virus in habanero and tabasco peppers in Florida. *Plant Disease* **84**: 1154.
- Mound L.A., 1996. The Thysanoptera vector species of Tospovirus. *Acta Horticulturae* **431**: 298-309.
- Mumford R.A., Barker I., Wood K.R., 1994. The detection of tomato spotted wilt virus using the polymerase chain reaction. *Journal of Virological Methods* **46**: 303-311.
- Nagata T., de Ávila A.C., Barbosa C.J., Melo P.C.T., Juliatti F.C., Kitajima E.W., 1995. Occurrence of different tospoviruses in six states of Brazil. *Fitopatologia Brasileira* **20**: 90-95.
- Nagata T., Inoue-Nagata A.K., van Lent J., Goldbach R., Peters D., 2002. Factors determining vector competence and specificity for transmission of Tomato spotted wilt virus. *Journal of General Virology* **83**: 663-671.
- Nolasco G., de Blas C., Torres V., Ponz F., 1993. A method combining immunocapture and PCR amplification in a microtiter plate for the detection of a plant viruses and subviral pathogens. *Journal of Virological Methods* **45**: 201-218.
- OEPP, 1991. Plantes hôtes du tomato spotted wilt virus aux Pays-Bas. Service de la Protection des Végétaux, Wageningen, OEPP note d'information n° 520/05.
- Parisi B., Roggero P., Grassi G., Masenga V., 1998. Tospovirus (TSWV) su melanzana in coltura protetta. *Informatore Agrario* **48**: 45-48.
- Peters D., Goldbach R., 1998. An updated list of plant species susceptible to tospovirus. Wageningen Agricultural University, Section Virology, The Netherlands.
- Pocsai E., Horváth J., Kazinczi G., 1998. New results on the occurrence of plant viruses in Hungarian rivers and lakes. *Acta Botanica Croatica* **57**: 1-10.
- Qiu W.P., Geske S.M., Hickey C.M., Moyer J.W., 1998. Tomato spotted wilt tospovirus genome reassortment and genome segment-specific adaptation. *Virology* **244**: 186-194.
- Qiu W.P., Moyer J.W., 1999. Tomato spotted wilt tospovirus adapts to the TSWV N gene-derived resistance by genome reassortment. *Phytopathology* **89**: 575-582.
- Rice D., German T.L., Mau R.F.L., Fujimoto F.M., 1990. Dot blot detection of tomato spotted wilt virus RNA in plant and thrips tissues by cDNA clones. *Plant Disease* **74**: 274-276.
- Roberts C.A., Dietzgen R.G., Heelan L.A., Maclean D., 2000. Real-time RT-PCR fluorescent detection of tomato spotted wilt virus. *Journal of Virological Methods* **88**: 1-8.
- Roca E., Aramburu J., Moriones E., 1997. Comparative host reactions and *Frankliniella occidentalis* transmission of different isolates of tomato spotted wilt tospovirus from Spain. *Plant Pathology* **46**: 407-415.
- Roggero P., Dellavalle G., Ciuffo M., Pennazio S., 1999. Effects of temperature on infection in *Capsicum* sp. and *Nicotiana benthamiana* by impatiens necrotic spot tospovirus. *European Journal Plant Pathology*, **105**: 509-512.
- Roggero P., Melani V., Ciuffo M., 1999. Two field isolates of Tomato spotted wilt virus overcome hypersensitive response of a pepper (*Capsicum annuum*) Hybrid with resistance introgressed from *C. chinense* PI152225. *Plant Disease* **83**: 965.
- Roggero P., Masenga V., Tavella L., 2002. Field isolates of Tomato spotted wilt virus overcoming resistance in pepper and their spread to other hosts in Italy. *Plant Disease* **86**: 950-954.
- Rosello S., Jordá C., Nuez F., 1994. El virus del bronceado de tomate (TSWV). I. Enfermedad y epidemiología. *Phytoma España* **62**: 21-33.
- Ronco A.E., Dal Bo E., Ghiringhelli P.D., Medrano C., Romanowski V., Sarachu A.N., Grau O., 1989. Cloned cDNA probes for the detection of tomato spotted wilt virus. *Phytopathology* **79**: 1309-1313.
- Ruter J.M., Gitaitis R.D., 1993. First report of tomato spotted wilt virus on bedding plants in Georgia. *Plant Disease* **77**: 101.
- Saldarelli P., Barbarossa L., Grieco F., Gallitelli D., 1996. Digoxigenin-labelled riboprobes applied to phytosanitary certification of tomato in Italy. *Plant Disease* **80**: 1343-1346.
- Salomone A., Masenga V., Minuto G., Parodi C., Roggero P., 2003. First report of Tomato spotted wilt virus (Tospovirus, *Bunyaviridae*) infecting *Euphorbia eritrea* and *Asclepias curassavica* in Liguria, Italy. *New Disease Report*, (<http://www.bspp.org.uk/ndr/july2003/2003-33.asp>).
- Schuster G.L., Halliwell R.S., 1994. Six new hosts of tomato spotted wilt virus in Texas. *Plant Disease* **78**: 100.
- Scott A., 2000. Tomato spotted wilt virus – positive steps towards negative success. *Molecular Plant Pathology* **1**: 151-157.
- Sether D.M., De Angelis J.D., 1991. Tomato spotted wilt virus host list and bibliography. Agricultural Experimental Station, Special Report n° 888, pp. 16. Department of Entomology, Oregon State University, Corvallis.
- Sherwood J.L., Sanborn M.R., Keyser G.C., Myers L.D., 1989. Use of monoclonal antibodies in detection of tomato spotted wilt virus. *Phytopathology* **79**: 61-64.
- Sherwood J.L., von Broembsen S.L., 1991. First report of Tomato spotted wilt virus in greenhouse crops in Oklahoma. *Plant Disease* **75**: 750.
- Sikora E.J., Gudauskas R.T., Murphy J.F., Porch D.W., Andrianifahanana M., Zehnder G.W., Bauske E.M., Kemble J.M., Lester D.F., 1998. A multivirus epidemic of tomatoes in Alabama. *Plant Disease* **82**: 117-120.
- Stobbs L.W., Broadbent A.B., Allen W.R., Stirling A.L., 1992. Transmission of tomato spotted wilt virus by the western flower thrips to weeds and native plants found in southern Ontario. *Plant Disease* **76**: 23-29.
- Tehrani B., Allen W.R., Matteoni J.A., 1990. Update on the incidence of tomato spotted wilt virus in greenhouse. *Canadian Plant Disease Survey* **70**: 102-103.
- Ullman D.E., German T.L., Sherwood J.L., Westcot D.M., Cantone F.A., 1993. Tospovirus replication in insect vector cells: immunocytochemical evidence that the nonstructural protein encoded by the S RNA of tomato spotted wilt tospovirus is present in thrips vectors cells. *Phytopathology* **83**: 456-463.

- Ullman D.E., Sherwood J.L., German T.L., 1997. Thrips as vectors of plant pathogens. In: Lewis, T.L.(ed.). Thrips as crop pests, pp. 539-565. CAB International, Wallingford, U.K.,
- Vaira A.M., Gallo S., Lisa V., 1992a. Nuove infezioni da due tospovirus (tomato spotted wilt e impatiens necrotic spot) in Liguria. *Informatore Fitopatologico* **42**: 37-42.
- Vaira A.M., Lisa V., Luisoni E., 1992b. Diffusione di due ceppi di tomato spotted wilt virus in Liguria. *Informatore Fitopatologico* **42**: 59-63.
- Vaira A.M., Lisa V., Dellavalle G., 1992c. Distribution of tospovirus in Liguria, Italy. *Proc. 5th International Plant Virus Epidemiology Symposium, Bari 1992*, 23-24.
- Valverde R.A., Can F., Rush M.C., 1993. Yellow mottle of Tomatillo (*Physalis ixocarpa*) caused by physalis mottle virus. *Plant Pathology* **42**: 657-660.
- Van Os B., Stancatelli G., Mela L., Lisa V., 1993. Ruolo delle piante spontanee ed infestanti nell'epidemiologia di tospovirus in Liguria. *Informatore Fitopatologico* **43**: 40-44.
- Verhoeven J.T.J., Roenhorst J.W., 1994. Tomato spotted wilt virus: ecological aspects in ornamental crops in the Netherlands from 1989 to 1991. *Acta Horticulturae* **377**: 175-182.
- Verhoeven J.T.J., Roenhorts J.W., 1998. Occurrence of tospovirus in the Netherland. In: Peters D. and Golbach (eds.). Recent Progress in Tospovirus Research, pp. 77-80. Wageningen Agricultural University, Section Virology, Wageningen, The Netherlands.
- Vovlas C., Laforteza R., 1994. Il virus dell'avvizzimento maculato del pomodoro su carciofo in Puglia. *Informatore Fitopatologico* **44**: 42-44.
- Wang M., Gonsalves D., 1990. ELISA detection of various tomato spotted wilt virus isolates using specific antisera to structural proteins of the virus. *Plant Disease* **75**: 154-158.
- Weekes R., Barker I., Wood K.R., 1996. An RT-PCR test for the detection of tomato spotted wilt virus incorporating immunocapture and colorimetric estimation. *Journal of Phytopathology* **144**: 575-580.
- Wijkamp I., Van Lent J., Kormelink R., Goldbach R., Peters D., 1993. Multiplication of tomato spotted wilt virus in its vector, *Frankliniella occidentalis*. *Journal of General Virology* **74**: 341-349.
- Wilson C.R., 1998. Incidence of weed reservoirs and vectors of tomato spotted wilt tospovirus on southern Tasmanian lettuce farms. *Plant Pathology* **47**: 171-176.
- Zimmer R.C., Haber S., 1992. First report of tomato spotted wilt virus in Manitoba and of *Lathyrus sativus* as a host. *Plant Disease* **76**: 753.

Received 12 July 2003

Accepted 29 September 2003