ORGANISATION EUROPÉENNE ET MÉDITERRANÉENNE POUR LA PROTECTION DES PLANTES
EUROPEAN AND MEDITERRANEAN PLANT PROTECTION ORGANIZATION

EPPO

Reporting Service

Paris, 1992-03-01 Report No. 521

CONTENTS

1, rue Le Nôtre, 75016 PARIS Tél. : (1) 45 20 77 94 Télégr. PROTECPLANTES-PARIS Télex : 614148 OEPP F

EPPO *Reporting Service*

521/01 **EPPO/INFOEPPO...**Technical requirements for connection with INFOEPPO

EPPO Reporting Service item 520/01 has announced that the EPPO Bulletin Board Service **INFOEPPO** has been in operation since 1992-01-06. The following technical requirements are necessary to connect to **INFOEPPO**.

What you need in order to connect to INFOEPPO :

A microcomputer

Communications software

A modem operating at 1200 bps*

An international telephone line

The connection to INFOEPPO is made directly through an international telephone line, like a normal international phone call. It will cost you the same as an international phone call. INFOEPPO is *not* connected to any international packet-switching network, such as TRANSPAC.

A typical configuration for connecting to INFOEPPO might be an IBM-compatible PC, working under MS-DOS, with a hard disk. Modems are usually sold with suitable communications software, e.g. XTALK. There is a wide variety of communications packages available.

* INFOEPPO currently operates at 1200 bps, but will soon be upgraded to operate also at 2400, 4800 or 9600 bps. You are advised to use the highest speed you can obtain, since this will help to keep connection times short.

If your computer and modem can communicate through an ordinary telephone line, then they can almost certainly connect with INFOEPPO; the make and size of your equipment are not important.

Entering the system

To communicate with INFOEPPO, certain parameters must be correctly set in your communications software. Once these have been set correctly in the initial configuration, your software can probably memorize them, with the INFOEPPO telephone number, so that you can subsequently connect automatically with INFOEPPO in the correct configuration.

The correct parameters are :

- telephone number : 33 1 40 50 62 83
- number of data bits : 8
- number of stop bits : 1
- parity : none
- full duplex

Before first trying to connect, please telephone EPPO headquarters and arrange a time, so that we can be at the other end to help. We advise you to have an experienced person beside you to explain what is happening. Strange things can appear on the screen if your software is wrongly configured. Once it is correctly set, connection becomes a very simple routine.

Source: EPPO Secretariat, Paris **(1992-02)**

521/02 **EPPO....Latest EPPO Bulletin**

The latest issue of Bulletin OEPP/EPPO Bulletin (Vol. 21, No. 4) has now been published. It contains:

OOMEN, P.A., ROMEIJN, G. & WIEGERS, G.L. Side effects of 100 pesticides on the predatory mite *Phytoseiulus persimilis*, collected and evaluated according to the EPPO Guideline.

NÉMETH, J.; LASZLO, E. & EMÖDY, L. *Clavibacter michiganensis* ssp. *insidiosus* in lucerne seeds.

BEITIA, F. & GARRIDO, A. Influence of relative humidity on development and egg-laying in Panonynchus citri under controlled condotions.

NASSAN AGHA, N. & FETTOUCHE, F. Recherche des bactérioses de la pomme de terre dans le littoral algérois.

NASSAN AGHA, N. & ANKI, N. Recherche du feu bactérien dû à *Erwinia amylovora* sur poirier dans l'Algerois.

Annual report for 1990.

The EPPO Bulletin can be ordered by:

Blackwell Scientific Publications
PO Box 88
Oxford OX2 0NE
England

Source: EPPO Secretariat, Paris **(1992-02)**

521/03 **GB/VERTSP...**Change in the regulatory status of *Verticillium* wilt of hop in UK

In the past, *Verticillium albo-atrum* (EPPO A2 organism) attacking hop in UK was considered to occur in two distinct groups of strains, the more severe "progressive" strains occurring only in South-East England, while the "fluctuating" or "mild" strains occurred also in the west Midlands hop-growing area. This is reflected in the A2 quarantine pest status agreed by EPPO. Growers who suspected that progressive wilt was present on their land were required to notify the authorities and to destroy suspect plants. The authorities could, if necessary, apply eradicatory measures, destroying the hop plants and grassing over the area. Only healthy planting material was permitted to be moved. Movement of used hop poles and picking machinery was also restricted. In areas where progressive wilt did not occur, only susceptible hop cultivars were permitted to be grown (so that outbreaks could easily be detected).

By the Plant Health (Great Britain) (Amendment) order 1991, many of these measures are removed. It is recognized that there is continuous variation in aggressiveness in the fungus, and that this exists in all hop-growing areas in England. Accordingly, the eradicative measures and restrictions on cultivars have been withdrawn. However, the regulations on healthy planting material, and on movement of used hop poles and picking machinery, are retained. Hop growers are required to keep detailed records of all new plantings of hops.

Source: Plant Health Division, MAFF (**1992-01**)

521/04 NL/EPPO...Interceptions in The Netherlands in 1989 and 1990

Some interesting interceptions took place in The Netherlands in 1989 and 1990:

- Several consignments of Marantaceae plantlets from Brazil were intercepted due to infestation by *Radopholus similis* as well as *Aphelenchoides besseyi*.

- One consignment of chrysanthemum from Thailand was intercepted due to infestation by *Puccinia horiana*.

- One consignment of Gladiolus flowers each from Italy and Spain were intercepted due to infestation by *Uromyces transversalis*.

This information, having reached the EPPO Secretariat only recently, has not been included in the internal EPPO summaries of intercepted consignments for 1989 and 1990.

Source: Plant Protection Service, Wageningen **(1992-02)**

521/05 **CORBMI....**Survival of *Clavibacter michiganensis* subsp. *michiganensis*

In Iowa, US, the dynamics of epiphytic populations of *Clavibacter michiganensis* subsp. *michiganensis* (EPPO A2 organism) were studied regarding their survival and dissemination. *C. m. michiganensis* survived for at least 24 months in infested debris at the soil surface. The survival was only 7 months in buried debris. Overwintered, infested debris served as as a primary inoculum for establishment of epiphytic populations of *C. m. michiganensis* on a subsequent tomato crop.

Source: Gleason, M.L.; Braun, E.J.; Carlton, W.M.; Peterson, R.H. (1991) Survival and dissemination of *Clavibacter michiganensis* subsp. *michiganensis* in tomatoes.
Phytopathology 81, 1519-1523.

521/06 **TMSWXX/FRANOC...**New hosts for tomato spotted wilt virus

In Ontario, Canada, tomato spotted wilt virus (EPPO A1 organism) has become increasingly important in glasshouse crops. Its vector *Frankliniella occidentalis* (EPPO A2 organism) is considered the predominant thrips species of glasshouses in Ontario and has been found on ornamentals bordering glasshouses. Fears that one or more biotypes of *F. occidentalis* might adapt to Ontario field conditions, as has occurred in British Columbia, and transmit the virus to cultivated outdoor crops has led to studies to determine the susceptibility of outdoor crops and weeds to tomato spotted wilt virus and *F. occidentalis*. Of 302 native plant species tested, 113 species representing 35 families were susceptible to tomato spotted wilt virus, of which 62 are reported for the first time as hosts of the virus. Eighty six percent of the species tested were ovipository hosts for *F. occidentalis*.

Source: 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.

521/07 **NEOVIN...**Fungicide against *Tilletia indica*

In India, experiments have been carried out to test propiconazole against *Tilletia indica* (EPPO A1 organism) under natural and artificial inoculation conditions in the Punjab area. Propiconazole applied as Tilt 250 EC at a rate of 500 ml/ha in a single spray resulted in a 71-96% disease reduction. Accordingly, propiconazole has been recommended for general use in seed production.

Source: Aujla, S.S.; Sharma, I.; Singh, P.; Singh, G.; Dhaliwal, H.S.; Gill, K.S. (1989) Propiconazole - a promising fungicide against Karnal bunt of wheat.
Pesticides 23 (11), 35-38.

521/08 **ANSTSP...**Fruit Flies in Costa Rica

In Costa Rica, a study was undertaken to test different attractant substances to catch fruit flies of *Anastrepha* spp.(non-European *Anastrepha* spp.are EPPO A1 pests).
Hydrolyzed soya protein caught the highest proportions of adult fruit flies followed by borated torula yeasts of type B and S and an aqueous solution of borax. Caught were *Anastrepha striata*, *A. serpentina*, *A. obliqua*, *A. balloui* and *Ceratitis capitata*.

Source: Jiron, L.F.; Soto-Manitou, J. (1989) Field evaluation of attractant substances on the catch of *Anastrepha* spp. (Diptera: Tephritidae), pest of fruit in tropical America. III. Borated hydrolized protein and borated torula yeast.
Revista Brasileira de Entomologia 33, 353-356.

521/09 **ANTHGR...**Mortality of *Anthonomus grandis*

In Texas, US, experiments were conducted to investigate the mortality of *Anthonomus grandis* (EPPO A1 pest) caused by heat. Mortality could be partitioned into two categories: desiccation and thermal death. At less than 3 h at temperatures of 55° C only low mortality occured but a 99% mortality rate was reached during an exposure time of 2 h 18 min at 60° C.
The authors suggest that this might explain the high mortality rate of *A. grandis* at some field locations and that simulation and forecasting models might be based on this knowledge.

Source: Sterling, W.; Dean, A.; Hartstack, A.; Witz, J. (1990) Partitioning boll weevil (Coleoptera: Curculionidae) mortality associated with high temperature: desiccation or thermal death?
Environmental Entomology 19, 1457-1462.

521/10 **BEMITA....**Behaviour of *Bemisia tabaci* on host plants

The host-plant related behaviour of *Bemisia tabaci* (EPPO A2 pest) was studied in Israel. Studied were the long-distance attraction of *B. tabaci* to melon vs. cotton plants, to infested vs. uninfested leaves as well as time and number of eggs laid on the leaves.
It was observed that no long-distance attraction occurred in the experiments. Whiteflies remained about three days on the leaf of emergence and moved up to a higher leaf after laying some eggs on the leaf of emergence. Previous oviposition did not affect the egglaying on the same leaf.

Source: Gerling, D.; Lindenbaum, M. (1991) Host-plant related behaviour of *Bemisia tabaci*.
WPRS Bulletin 14(5), 83-88.

521/11 **CONHNE...**Spring activities of *Conotrachelus nenuphar*

Spring activities on apple trees of adult plum curculios, *Conotrachelus nenuphar* (EPPO A1 pest), were the objects of an investigation carried out in Quebec, Canada.
Radioactively labeled plum curculios were released in field cages containing several dwarf apple trees and then monitored throughout the spring season. From full bloom to 9 d after fruit set the weevils were active on the trees mainly during the night. From full bloom to petal fall they spent most of their days on the ground beneath the apple trees but gradually invaded the trees until, by fruit set, most were in the trees.
By fruit set the beetles were most active during the late afternoon and night.
Basing on this knowledge the authors suggest that pesticides are best applied in the late evening during the spring season.

Source: Racette, G.; Chouinard, G.; Hill, S.B.; Vincent, C. (1991) Activity of adult plum curculio (Coleoptera: Curculionidae) on apple trees in spring. **Journal of Economic Entomology 84, 1827-1832.**

521/12 **LEPTDE...**Treshold of *Leptinotarsa decemlineata* in Italy

In central Italy, experiments were carried out to measure the economic threshold of *Leptinotarsa decemlineata* (EPPO A2 pest) in potatoes. The studies indicated that one egg-mass per plant could lead to a density of 24 4th instar larvae with a subsequent yield reduction of 50%. The authors suggest that a treshold of 25 egg-masses on 50 plants ha^{-1} sampled in the 3rd or 4th week of May would be sufficient to have a rational margin of recovery.

Source Pucci, C.; Dominici, M.; Forcina, A. (1991) Population dynamic and economic treshold of Leptinotarsa decemlineata (Say) (Col., Chrysomelidae) in Central Italy.
Journal of Applied Entomology 111, 311-317.

521/13 **LIRISA...**Biology of *Liriomyza sativae*

In Colombia experiments were carried out to study life cycle, habits and natural enemies of the bean leafminer *Liriomyza sativae* (EPPO A1 pest).
Laboratory experiments conducted at 25° C and 64% RH showed that the different life stages of the pest had duration periods as follows:

egg:	2,6 days
larval:	4,6 days
prepupal:	5 h 20 min.
pupal:	9,1 days
male adult:	14,6 days
female adult:	19,9 days

The experiments also showed that *Opius* sp., *Diglyphus begini* and *Drapetis* are natural enemies of *L. sativae*.

Source: De Cruz, A.M.R.; Cardona, C.J.; De Cruz, J.L. (1989) Life cycle, habits and natural enemies of the bean leafminer *Liriomyza sativae* Blanchard (Diptera: Agromyzidae).
Acta Agronomica, Universidad Nacional de Colombia 39, 133-141

521/14 **OPOGSC...**Entomogenous nematodes against *Opogona sacchari*

To investigate the predation rate to *Opogona sacchari* (EPPO A2 pest) entomogenous nematodes of families Heterorhabditidae and Steinernematidae were applied to the banana moth in Florida, USA.
Neoaplectana feltiae, *Heterorhabditis bacteriophora* and *H. heliothidis* were applied to potato and bamboo palms infested with larvae of *O. sacchari*. The application resulted in a 58 -100% reduction of the larvae of *O. sacchari*.

Source: Peña, J.E.; Schroeder, W.J.; Osborne, L.S. (1990) Use of entomogenous nematodes of the families Heterorhabditidae and Steinernematidae to control banana moth (*Opogona sacchari*). **Nematropica 20, 51-55.**

521/15 **THRIPL/FI...**Interceptions of *Thrips palmi* in Finland

Finland has intercepted four consignment of orchids (cut flowers) due to infestation by *Thrips palmi* (EPPO A1 pest).
The flowers originated from Thailand and were intercepted in January 1992.

This 'Early Warning Message' has been possible because the National Board of Agriculture of Finland sends automatically copies of its notifications of interception to EPPO!

*This report of interception has also been available in **INFOEPPO** since 1992-01-31.*

Source: National Board of Agriculture Finland, Helsinki (**1992-01**)
EPPO Secretariat, Paris (**1992-02**)

521/16 **APLOBE...**Distribution of *Aphelenchoides besseyi*

According to Technical Document No. 140/1991 of the APPPC *Aphelenchoides besseyi* (EPPO A2 nematode) is present in the following Asian and Pacific countries of which no previous record had existed in the EPPO PQ-data base: Afghanistan, Myanmar (Burma), Cambodia, Fiji, Iran, Laos, Malaysia, Nepal, Pakistan, Thailand and Vietnam.

EPPO Distribution List: *Aphelenchoides besseyi*

EPPO region: Bulgaria, locally established in France, Hungary (Javor, 1970), Italy and USSR ; reported from but not established in Israel.

Asia: Afghanistan, Bangladesh, Cambodia, China, Fiji, India, Indonesia, Iran, Japan, Korea Republic, Laos, Malaysia, Myanmar (Burma), Nepal, Pakistan, Philippines, Sri Lanka, Thailand, Taiwan and Vietnam.

Africa: Madagascar, central and western Africa.

North America: USA (south-eastern States and Hawaii).

Central America & Caribbean: Cuba, El Salvador, Panama

Oceania: Australia (Queensland)

Source: APPPC, Technical Document 140/1991 **(1991)**
EPPO Secretariat, Paris **(1992-01)**

521/17 **BURSXY/FI...**Interceptions of *Bursaphelenchus xylophilus* in Finland

Finland has intercepted two consignments of wood chips (*Pinus* spp.) due to infestation by *Bursaphelenchus xylophilus* (EPPO A1 organism).
The consignments originated from the USA and were intercepted in January 1992.

This 'Early Warning Message' has been possible because the National Board of Agriculture of Finland sends automatically copies of its notifications of interception to EPPO!

This report of interception has also been available in ***INFOEPPO*** *since 1992-01-31.*

Source: National Board of Agriculture Finland, Helsinki (**1992-01**)
EPPO Secretariat, Paris (**1992-02**)

521/18 **DITYDI....**Distribution of *Ditylenchus dipsaci*

According to Technical Document No. 140/1991 of the APPPC *Ditylenchus dipsaci* (EPPO A2 nematode) is present in India.

EPPO Distribution List: *Ditylenchus dipsaci*

EPPO region: Algeria, Belgium, Bulgaria, Cyprus, Czechoslovakia, Denmark, France, Germany, Hungary, Ireland, Israel, Italy, Morocco, Netherlands, Poland, Portugal, Spain, Sweden, Switzerland, Turkey, Tunisia, UK, USSR, Yugoslavia.

Asia: Japan, India, Iran, Iraq, Israel, Jordan, Pakistan, Syria, USSR (EPPO country)

Africa: Algeria, Morocco, Tunisia (EPPO countries), South Africa.

North America: Canada, Mexico, USA.

South America: Argentina, Brazil, Chile, Colombia, Ecuador, Peru, Venezuela.

Oceania: Australia, New Zealand.

Source: APPPC, Technical Document 140/1991 **(1991)**
EPPO Secretariat, Paris **(1992-01)**

EPPO *Reporting Service*

521/19 **HETDPA/HETDRO...**Distribution of *Globodera rostochiensis* and *G. pallida*

According to Technical Document No. 140/1991 of the APPPC *Globodera pallida* (EPPO A2 nematode) is present in the following Asian and Pacific countries of which no previous record had existed in the EPPO PQ-data base: Malaysia, Japan and Pakistan. Additionally *Globodera rostochiensis* (EPPO A2 nematode) had been reported also from Malaysia.

EPPO Distribution List: *Globodera rostochiensis* and *G. pallida*

EPPO region: Both species present in Algeria, Austria, Belgium, Cyprus, Denmark, Faroe Islands, France, Germany, Iceland, Ireland, Italy, Libya, Luxembourg, Malta, Netherlands, Norway, Portugal (including Azores), Spain (including Canary Islands), Sweden, Switzerland, Tunisia, UK (including Guernsey and Jersey), USSR, Yugoslavia.
Only G. rostochiensis present in Bulgaria, Czechoslovakia, Egypt, Finland, Hungary (one locality only), Lebanon, Morocco, Poland. Both species are present on the island of Crete, but only G. rostochiensis is present on the mainland of Greece.
G. rostochiensis was found in Israel on only two occasions in 1954 and 1965 in a small area in the Sharon region, and was successfully eradicated.
Asia: Both species present in India (*G. rostochiensis* present in only Kerala in the Nilgiri Hills), Japan, Malaysia and Pakistan. Only *G. rostochiensis* present in Lebanon (potential EPPO country) and Philippines.
Africa: Both species present in Algeria, Tunisia (actual or potential EPPO countries).
Only *G. rostochiensis* present in Egypt, Libya, Morocco (actual or potential EPPO countries), South Africa.
North America: Both species present in Canada (*G. rostochiensis* present only in Newfoundland and Vancouver Island).
Only *G. rostochiensis* present in Mexico, USA (Long Island, New York State, Delaware).
Central America and Caribbean: Only *G. rostochiensis* present in Costa Rica, Panama.
South America: Throughout the high Andean region: Argentina, Bolivia, Chile, Colombia, Ecuador, Peru, Venezuela. *G. pallida* apparently has a more northerly range than *G. rostochiensis*.
Oceania: Both species present in New Zealand
Only *G. rostochiensis* present in Australia, Norfolk Island.

Source: APPPC, Technical Document 140/1991 **(1991)**
EPPO Secretariat, Paris **(1992-01)**

521/20 **RADOSI....**Distribution of *Radopholus similis*

According to Technical Document No. 140/1991 of the APPPC *Radopholus similis* (EPPO A2 nematode) is present in Papua New Guinea.

EPPO Distribution List: *Radopholus similis*

EPPO region: locally established on ornamentals in glasshouses in Belgium, France and Germany, locally established in Portugal (Madeira). It has also been reported from Denmark and Netherlands but is not established in these countries.

Asia: India, Indonesia, Japan, Malaysia, Pakistan, Philippines, Sri Lanka, Thailand.

Africa: Egypt (potential EPPO country), nearly throughout sub-Saharan and Indian Ocean islands (IAPSC, 1985).

North America: Canada, USA.

Central America & Caribbean: widespread

South America: widespread

Oceania: Australia, Fiji, French, Papua New Guinea and Polynesia.

Source: APPPC, Technical Document 140/1991 **(1991)**
EPPO Secretariat, Paris **(1992-01)**