

## INDEX OF VOLUME 45 (2009)

ALMQVIST C., WALLENHAMMAR A.-C., JONSSON A.: Quantitative PCR-detection methods for mapping in-field variation of <i>Plasmodiophora brassicae</i> in <i>Brassica</i> crops (Abstract only) .....	34
ASHER M.J.C., GRIMMER M.K., MUTASA-GOETTGENS E.S.: The selection and characterisation of resistance to <i>Polymyxa betae</i> , vector of <i>Beet necrotic yellow vein virus</i> , derived from wild sea beet (Abstract only) .....	30
DIEDERICHSEN E., WERNER S.: Race-differentiation and resistance genes in the <i>Plasmodiophora brassicae</i> – <i>Brassica napus</i> interaction (Abstract only) .....	33
DIXON G. R. (Ed.): Report on plasmodiophorids and related organisms – An International Workshop held on 23 <sup>rd</sup> August 2008, Torino, Italy (as a part of ICPP 2008) .....	25
DIXON G.R.: Calcium cyanamide – 100 years of successful integrated control (Abstract only) .....	37
DONALD E.C., PORTER I.J., FAGGIAN R., CRUMP N.S., DE BOER R.F., WIECHEL T.J., SCOBLE C.S., O'TOOLE A.K.: Managing plasmodiophorid pathogens on Australian vegetable farms (Abstract only)....	34
EL-BRAMAWY M. A. E.-H. S., EL-HENDAWY S. E.-S., SHABAN W. I.: Assessing the suitability of morphological and phenotypical traits to screen sesame accessions for resistance to <i>Fusarium</i> wilt and charcoal rot diseases .....	49
GALFE N., BERGER A.-A., RIEFLER M., SIEMENS J.: Cytokinin is a crucial pathogenic factor for clubroot development in <i>Arabidopsis thaliana</i> (Abstract only).....	31
GLICK E., LEVY Y., GAFNI Y.: The viral etiology of tomato yellow leaf curl disease – a review .....	81
HWANG S.F., STRELKOV S.E., TURNBULL G.D., MANOLII V., HOWARD R.J., HARTMAN M.: Soil treatments and amendments for management of clubroot on canola in Alberta, Canada (Abstract only) .....	36
JANKOVSKÝ L., HOLDENRIEDER O.: <i>Chalara fraxinea</i> – ash dieback in the Czech Republic – Short Communication .....	74
JANKOVSKÝ L., PALOVČÍKOVÁ D., DVOŘÁK M., TOMŠOVSKÝ M.: Records of Brown spot needle blight related to <i>Lecanosticta acicola</i> in the Czech Republic .....	16
JUBAULT M., GRAVOT A., LARIAGON CH., DELEU C., BOUCHEREAU A., DELOURME R., MANZANARES-DAULEUX M.J.: Integrative analysis of the <i>Arabidopsis thaliana</i> – <i>Plasmodiophora brassicae</i> interaction: deciphering mechanisms associated with partial resistance (Abstract only) .....	32
KOLLÁR J., HRUBÍK P., TKÁČOVÁ S.: Monitoring of harmful insect species in urban conditions in selected model areas of Slovakia .....	119
KŮDELA V., KREJZAR V., KUNDU J.K., PÁNKOVÁ I., ACKERMANN P.: Apple burrknots involved in trunk canker initiation and dying of young trees .....	1
KUMARI S.: Detection of <i>Cherry leaf roll virus</i> and <i>Strawberry latent ring spot virus</i> by one-step RT-PCR .....	140
LUDWIG-MÜLLER J.: Hormone signaling during the development of the clubroot disease in <i>Arabidopsis thaliana</i> roots (Abstract only) .....	30
MCDONALD M.R., WESTERVELD S.M., GOSSEN B.D.: Temperature influences the incidence and severity of clubroot on Asian leafy <i>Brassica</i> vegetables (Abstract only) .....	36

MAHMOUD M.F.: Pathogenicity of three commercial products of entomopathogenic fungi, <i>Beauveria bassiana</i> , <i>Metarhizium anisopilae</i> and <i>Lecanicillium lecanii</i> against adults of olive fly, <i>Bactrocera oleae</i> (Gmelin) (Diptera: Tephritidae) in the laboratory .....	98
MARTYN R.D.: Where will the next norman borlaug come from? A U.S. perspective of plant pathology education and research .....	125
MERZ U., KEISER A., JAQUIÉRY P.-Y., OBERHÄNSLI T.: The importance of seed- and soil-related inoculum for powdery scab crop infection (Abstract only) .....	29
PACANOSKI Z., GLATKOVA G.: The use of herbicides for weed control in direct wet-seeded rice ( <i>Oryza sativa</i> L.) in rice production regions in the Republic of Macedonia .....	113
PACANOSKI Z.: The myth of organic agriculture .....	39
PAVELA R.: Effectiveness of some botanical insecticides against <i>Spodoptera littoralis</i> Boisduvala (Lepidoptera: Noctuidae), <i>Myzus persicae</i> Sulzer (Hemiptera: Aphididae) and <i>Tetranychus urticae</i> Koch (Acari: Tetranychidae) .....	161
PETER K.H., SWELLA G.B., MUSHOBOZY D.M.K.: Effect of plant populations on the incidence of bean stem maggot ( <i>Ophiomyia</i> spp.) in common bean intercropped with maize .....	148
POLÁK J., KOMÍNEK P.: Distribution of <i>Plum pox virus</i> strains in natural sources in the Czech Republic .....	144
REHN F., ARBEITER A., GALFE N., REINHARDT S., SIEMENS J.: <i>RPB1</i> -mediated clubroot resistance in <i>Arabidopsis thaliana</i> (Abstract only) .....	32
ŠAFRÁNKOVÁ I., MÜLLER J.: <i>Peronospora harti</i> on <i>Buddleja</i> in the Czech Republic .....	12
SEIDENGLANZ M., POSLUŠNÁ J., HRUDOVÁ E.: The importance of monitoring the <i>Ceutorhynchus pallidactylus</i> female flight activity for the timing of insecticidal treatment .....	103
SMITH M.J., WARD E., WALSH J.A., ADAMS M.: Significance and occurrence of the temperate ribotypes of <i>Polymyxa</i> species (Abstract only) .....	29
STANIASZEK M., ROBAK J., MARCZEWSKI W.: Integrated control of <i>Plasmodiophora brassicae</i> – clubroot on brassicas crops in Poland (Abstract only) .....	37
ŠTOLCOVÁ J.: Feeding preferences of <i>Phyllotreta</i> herbivores to winter rape and chosen weeds .....	156
ŠTOLCOVÁ J.: Insect damage to and mortality of seedlings of <i>Chenopodium album</i> L. and <i>Fallopia convolvulus</i> (L.) Á.Löve .....	59
STRELKOV S.E., HWANG S.F., HOWARD R.J., TEWARI J.P.: Experiences with clubroot on canola (oilseed rape) in Alberta, Canada .....	35
SWELLA G. B., MUSHOBOZY D. M. K.: Comparative susceptibility of different legume seeds to infestation by cowpea bruchid <i>Callosobruchus maculatus</i> (F.) (Coleoptera: Chrysomelidae) .....	19
VEVERKA K.: A. Lebeda, P.T.N. Spencer-Phillips, B.M. Cooke (eds) – The Downy Mildews – Genetics, Molecular Biology and Control – Book Review .....	79
ZOUHAR M., DOUDA O., LHOTSKÝ D., PAVELA R.: Effect of plant essential oils on mortality of the stem nematode ( <i>Ditylenchus dipsaci</i> ) .....	66

### Special Issue – Climate Change and Plant Pathogens, Pests and Weeds

DUMALASOVÁ V., BARTOŠ P.: Will climatic changes enhance the risk of <i>Tilletia indica</i> in Europe? .....	S38
KOCMÁNKOVÁ E., TRNKA M., JUROCH J., DUBROVSKÝ M., SEMERÁDOVÁ D., MOŽNÝ M., ŽALUD Z.: Climate change and its possible influence on the occurrence and importance of insect pests .....	S53

KŮDELA V.: Potential Impact of climate change on geographic distribution of plant pathogenic bacteria in Central Europe .....	S27
LEBEDA A., SEDLÁKOVÁ B., KŘÍSTKOVÁ E., VYSOUDIL M.: Long-lasting changes in the species spectrum of Cucurbit powdery mildew in the Czech Republic – Influence of air temperature changes or random effect? .....	S41
LAŠTŮVKA Z.: Impact of climate change on the occurrence and activity of harmful organisms .....	S48
MIKULKA J., KORČÁKOVÁ M., BUREŠOVÁ V., ANDR J.: Changes in weed species spectrum of perennial weeds on arable land, meadows and pastures .....	S63
POLÁK J.: Influence of climate changes in the Czech Republic on the distribution of plant viruses and phytoplasmas originally from the mediterranean subtropical region .....	S20
POKORNÝ R., LEBEDA A.: Foreword .....	S1
SHAW M.W.: Preparing for changes in plant disease due to climate change .....	S3
VÁŇOVÁ M., KLEM K., MATUŠINSKÝ P., TRNKA M.: Prediction Model for deoxynivalenol in wheat grain based on weather conditions .....	S33
ŽALUD Z., TRNKA M., DUBROVSKÝ M., HLAVINKA P., SEMERÁDOVÁ D., KOČMÁNKOVÁ E.: Climate change impacts on selected aspects of the Czech agricultural production .....	S11

## AUTHOR INDEX

- ACKERMANN, P. ... 1  
ADAMS, M. ... 29  
ALMQVIST, C. ... 32  
ANDR, J. ... S63  
ARBEITER, A. ... 30  
ASTER, M.J.C. ... 30
- BARTOŠ, P. ... S38  
BERGER, A.-A. ... 31  
BLAŽKOVÁ, G. ... 113  
BOER, R. F. de ... 34  
BOUCHEREAU, A. ... 32  
BUREŠOVÁ, V. ... S63
- CRUMP, N.S. ... 34
- DELEU, C. ... 32  
DELOURME, R. ... 32  
DIEDERICHSEN, E. ... 33  
DIXON, G.R. ... 37  
DONALD, E.C. ... 34  
DOUDA, O. ... 66  
DUBROVSKÝ, M. ... S11, S53  
DUMALASOVÁ, V. ... A38  
DVOŘÁK, M. ... 103
- EL-BRAMAWY M. A. E.-H. S. ... 49  
EL-HENDAWY, S. E.-S. ... 49
- FAGGIAN, R. ... 34
- GAFNI, Y. ... 81  
GLATKOVA, G. ... 113  
GOSSEN, B.D. ... 36  
GRIMMER, M.K. ... 30  
GLICK, E. ... 81
- HARTMAN, M. ... 36  
HLAVINKA, P. ... S11  
HOLDENRIEDER, O. ... 74  
HOWARD, R.J. ... 35  
HRUBÍK, P. ... 144  
HRUDOVÁ, E. ... 103  
HWANG S.F. ... 35
- JAQUIÉRY, P.-Y. ... 29  
JONSSON, A. ... 103  
JUROCH, J. ... S53
- KEISER, A. ... 1  
KLEM K. ... S33  
KOCMÁNKOVÁ E. ... S11, S53  
KOLÁR, J. ... 119  
KOMÍNEK, P. ... 144  
KORČÁKOVÁ, M. ... S63  
KREJCAR, V. ... 1  
KŘÍSTKOVÁ, E. ... S41  
KŮDELA, V. ... 1, S27  
KUMARI, S. ... 140  
KUNDU, J.K. ... 1
- LARIAGON, CH. ... 32  
LAŠTŮVKA, Z. ... S48  
LEBEDA, A. ... S41  
LEVY, Y. ... 81  
LHOTSKÝ, D. ... 66  
LUDWIG-MÜLLER, J. ... 30
- MAHMOUD, M.F. ... 66  
MANOLII, V. ... 32  
MANZANARES-DAULEUX, M.J. ... 37  
MARCZEWSKI, W. ... 36  
MARTYN, R.D. ... 125  
MATUŠINSKÝ, P. ... S33  
MCDONALD, M.R. ... 98  
MERZ, U. ... 30  
MIKULKA, J. ... S63  
MILLER, J. ... 12  
MOŽNÝ, M. ... S53  
MUSHOBOZY, D.M.K. ... 19, 148  
MUTASA-GOETTGENS, E.S. ... 30
- O'TOOLE, A.K. ... 34  
OBERHÄNSLI, T. ... 29
- PACANOSKI, Z. ... 39, 113  
PÁNKOVÁ, I. ... 12  
PETER, K.H. ... 148  
PAVELA, R. ... 66, 161

POLÁK, J. ... 144, S20  
PORTER, I.J. ... 34  
POSLUŠNÁ, J. ... 32

REHN, F. ... 32  
REINHARDT, S. ... 32  
RIEFLER, M. ... 31  
ROBAK, J. ... 37

ŠAFRÁNKOVÁ, I. ... 12  
SCOBLE, C.S. ... 34  
SEDLÁKOVÁ, B. ... S41  
SEMERÁDOVÁ, D. ... S11, S53  
SEIDENGLANZ, M. ... 103  
SHABAN, W.I. ... 49  
SHAW, M.W. ... S3  
SIEMENS, J. ... 37, 35  
SMITH, M.J. ... 36  
STANIASZEK, M. ... 119  
ŠTOLCOVÁ, J. ... 59, 156

STRELKOV, S.E. ... 35  
SWELLA, G.B. ... 19, 148

TEWARI, J.P. ... 35  
TRNKA, M. ... S11, S33, S53  
TURNBULL G.D. ... 36

VÁŇOVÁ, M. ... S33<sup>~</sup>  
VEVERKA, K. ... 80  
VYSOUDIL, M. ... S41

WALLENHAMMAR, A.-C. ... 34  
WALSH, J.A. ... 29  
WARD, E. ... 29  
WERNER, S. ... 33  
WESTERVELD, S.M. ... 36  
WIECHEL, T. J. ... 34

ŽALUD, Z. ... S11, S53  
ZOUHAR, M. ... 66

## AUTHOR INSTITUTION INDEX

### Czech Republic

AGRITEC, Research, Breeding & Services Ltd., Department of Plant Protection, Šumperk .....	103
Agritest fyto, Ltd., Kroměříž .....	S33
Academy of Sciences of the Czech Republic, Institute of Atmospheric Physics, Prague .....	S48
Czech Hydrometeorological Institute, Doksany observatory .....	S48
Crop Research Institute, Prague-Ruzyně .....	
Division of Plant Health .....	1, 59, 66, 140, 144, 156, 161, S27, S38, S63
Czech University of Life Sciences Prague, Faculty of Agrobiological Sciences, Food and Natural Resources, Prague-Suchbát .....	66, S63
Mendel University of Agriculture and Forestry in Brno .....	
Faculty of Agronomy .....	12, 103, S11, S53, S63
Faculty of Forestry and Wood Technology .....	16, 74
Palacký University in Olomouc, Faculty of Science, Olomouc-Holice .....	S41
State Phytosanitary Administration, Brno .....	1, S48
University of South Bohemia in České Budějovice, Faculty of Agriculture, České Budějovice .....	S63

### Egypt

Suez Canal University, Faculty of Agriculture, Ismailia .....	49, 98
Institute of Plant Sciences, A.R.O., The Volcani Center, Bet Dagan, Israel .....	81

### Israel

Bar-Ilan University, The Mina and Everard Goodman Faculty of Life Sciences, Ramat-Gan .....	81
---	----

### Republic of Macedonia

Institute of Agriculture, Skopje .....	113
Ss. Cyril and Methodius University, Faculty for Agricultural Sciences and Food, Skopje .....	39, 113

### Slovak Republic

Slovak University of Agriculture in Nitra, Horticulture and Landscape Engineering Faculty, Nitra .....	119
Switzerland .....	
Institute of Integrative Biology (IBZ), ETH Zurich .....	74

### Tanzania

Dodoma University, Dodoma, Tanzania .....	148
Sokoine University of Agriculture, Department of Crop Science and Production, Chuo Kikuu, Morogoro .....	19, 148
Tanzania Official Seed Certification Institute, Morogoro .....	19, 148

### United Kingdom

School of Biological Sciences, University of Reading, Reading .....	S3
---	----

### USA

Purdue University, Department of Botany and Plant Pathology, West Lafayette .....	125
---	-----

## LIST OF REVIEWERS

In 2009, 54 reviewers from 16 countries have been addressed.  
Their valuable help to the authors is greatly appreciated.

ACKERMANN PETR (Brno, Czech Republic)  
BHUYAN MANTU (Assam, India)  
CHERMENSKAYA TAYA (S. Petersburg, Russia)  
DĚDIČ PETR (Havl. Brod, Czech Republic)  
DOUDA ONDŘEJ (Prague, Czech Republic)  
FRASER RON S.S. (Edinburg, UK)  
GAAR VLADIMÍR (Prague, Czech Republic)  
GLASA MIROSLAV (Bratislava, Slovak Republic)  
GOICOECHEA PREBOSTE NIEVES (Navarra, Spain)  
GOLIÁŠ JAN (Lednice, Czech Republic)  
HAUSVATER ERVÍN (Havl. Brod, Czech Republic)  
HOLDENRIEDER OTTMAR (Zurich, Switzerland)  
HONĚK ALOIS (Prague, Czech Republic)  
HRUBÍK PAVEL (Nitra, Slovak Republic)  
HURLE KARL (Ostfildern, Germany)  
KAPSA JÓZEFA (Bonin, Poland)  
KITNER MILOSLAV (Olomouc, Czech Republic)  
KLEM KAREL (Brno, Czech Republic)  
KREJZAR VÁCLAV (Prague, Czech Republic)  
KŘÍSTKOVÁ EVA (Olomouc, Czech Republic)  
KŮDELA VÁCLAV (Prague, Czech Republic)  
LACHMAN JAROMÍR (Prague, Czech Republic)  
LAŠTŮVKA ZDENĚK (Brno, Czech Republic)  
LEBEDA ALEŠ (Olomouc, Czech Republic)  
ZHIHONG LI (Beijing, P.R. China)  
LIŠKOVÁ MARTA (Košice, Slovak Republic)  
LUHOVÁ LENKA (Olomouc, Czech Republic)

MARAS MARKO (Ljubljana, Slovenia)  
MATUŠINSKÝ PAVEL (Olomouc, Czech Republic)  
NAVRÁTIL MILAN (Olomouc, Czech Republic)  
NEDĚLNÍK JAN (Troubsko, Czech Republic)  
NOVOTNÝ DAVID (Prague, Czech Republic)  
ORLIKOWSKI LEZSEK (Skierniewice, Poland)  
PAVELA ROMAN (Prague, Czech Republic)  
PETŘIVALSKÝ MAREK (Olomouc, Czech Republic)  
POKORNÝ RADOSLAV (Brno, Czech Republic)  
POLÁK JAROSLAV (Prague, Czech Republic)  
RAMAMOORTHY VELLAISAMY, Moscow, USA)  
RYŠÁNEK PAVEL (Prague, Czech Republic)  
SASANELLI NICOLA (Bari, Italy)  
SHAW MICHAEL W., (Reading, UK)  
SEIDENGLANZ MAREK (Šumperk, Czech Republic)  
SOBICZEWSKI PIOTR (Skierniewice, Poland)  
STARÁ JITKA (Prague, Czech Republic)  
STEJSKAL VÁCLAV (Prague, Czech Republic)  
ŠAFÁŘOVÁ DANA (Olomouc, Czech Republic)  
ŠTOLCOVÁ JINDRA (Prague, Czech Republic)  
ŠVÁBOVÁ LENKA (Olomouc, Czech Republic)  
TÁBORSKÝ VLADIMÍR (Prague, Czech Republic)  
VÁŇOVÁ MARIE (Kroměříž, Czech Republic)  
VASAITIS RIMVYS (Uppsala, Sweden)  
VIRÁNYI FERENC (Gödöllő, Hungary)  
VOGLMAYR HERMANN (Vienna, Austria)  
ZOUHAR MILOSLAV (Prague, Czech Republic)

## SUBJECT INDEX

### A

agmatine . . . . . 33  
 air temperature . . . . . S41  
 Alberta . . . . . 35  
 alien species . . . . . 119  
 alpha-cypermethrin . . . . . 103  
 American Phytopathological Society – APS . . . 126  
 apple tree . . . . . 1  
 applied plant pathology . . . . . 126  
 apricot . . . . . 144  
*Arabidopsis thaliana* . . . . . 31  
 arginase . . . . . 33  
 ASGV . . . . . 1  
 ash . . . . . 74  
 ash dieback . . . . . 74  
 ASPV . . . . . 1  
 auxin . . . . . 31  
*Azadirachta indica* . . . . . 161

### B

bacterial diseases of plants . . . . . S27  
*Bactrocera oleae* . . . . . 98  
*Barley yellow mosaic virus* . . . . . 29  
*Beauveria bassiana* . . . . . 98  
*Beet necrotic yellow vein virus* . . . . . 29  
 betae . . . . . 30  
*Beta vulgaris* ssp. *maritima* . . . . . 30  
 bioassay . . . . . 35  
 biofertiliser . . . . . 38  
 blackthorn . . . . . 144  
 bog pine . . . . . 16  
 botanical insecticides . . . . . 161  
 branch number . . . . . 49  
*Brassica* . . . . . 34  
*Brassicaceae* . . . . . 156  
*Brassica napus* . . . . . 33  
*Brassica oleracea* . . . . . 37  
*Brassica rapa* . . . . . 32  
 brown spot needle blight . . . . . 16  
*Buddleja* . . . . . 12  
 burrknot . . . . . 1  
 Butterfly Bush . . . . . 12

### C

cabbage . . . . . 35, 37  
 cabbage stem weevil . . . . . 103  
 calcium . . . . . 36

calcium cyanamide . . . . . 38  
*Callosobruchus maculatus* . . . . . 19  
 Canada . . . . . 35  
 canola . . . . . 35  
 cauliflower . . . . . 37  
 cell wall . . . . . 32  
 Central Europe . . . . . S27  
 cereals . . . . . 29  
 certification . . . . . 29  
*Ceutorhynchus pallidactylus* . . . . . 103  
*Chalara fraxinea* . . . . . 74  
 changes in geographical distribution . . . . . S27  
*Chenopodium album* L. . . . . 59  
*Cherry leaf roll virus* (CLRV) . . . . . 140  
 Chinese cabbage . . . . . 36  
 climate change . . . . . S3, S20, S53  
 climate change impacts . . . . . S48  
 climate variability . . . . . S27  
 chlorpyrifos + cypermethrin . . . . . 103  
*Chrysanthemum cinerariifolium* . . . . . 161  
 clubroot . . . . . 31  
 control . . . . . 66  
 crop . . . . . 56  
 crop management . . . . . 36  
 crop yield . . . . . S11  
 Cucurbitaceae . . . . . S41  
 Czech Republic . . . . . S20, S53  
 cytokinin . . . . . 31

### D

damage . . . . . 148  
 days to maturity . . . . . 49  
 decease . . . . . S11  
 deoxynivalenol . . . . . S33  
 detection . . . . . 34  
 development . . . . . 19  
 diseases . . . . . S48  
 disease management . . . . . 35  
 distribution . . . . . 74  
*Ditylenchus dipsaci* . . . . . 66  
 double haploid . . . . . 33  
 downy mildew . . . . . 12  
 drought . . . . . S11

### E

environment . . . . . 33  
 environmental factors . . . . . S38  
 epidemiology . . . . . S41



epistatic . . . . .	34
essential oils . . . . .	66
etofenprox . . . . .	103
European stone fruit yellows . . . . .	S20
expansion . . . . .	S63

## F

<i>Fallopia convolvulus</i> . . . . .	59
fallow . . . . .	59
feeding preference . . . . .	156
fertilisers . . . . .	39
flavonoid . . . . .	31
flea beetle . . . . .	59
food . . . . .	39
<i>Fraxinus angustifolia</i> . . . . .	74
<i>Fraxinus excelsior</i> . . . . .	74
fungicide . . . . .	36
future of plant pathology . . . . .	126

## G

Geminivirus . . . . .	81
geographic distribution . . . . .	S41
global climate models . . . . .	S11
<i>Golovinomyces cichoracearum</i> . . . . .	S41
growth regulators . . . . .	31

## H

healthy seed . . . . .	29
herbicides . . . . .	113
herbivory . . . . .	59, 156
histidine kinase . . . . .	31
host . . . . .	19
<i>Hymenoscyphus albidus</i> . . . . .	74

## I

infection percentage . . . . .	49
inoculum threshold . . . . .	34
insect pests . . . . .	S53
insecticidal effect . . . . .	103
integrated control . . . . .	29

## K

Karnal bunt . . . . .	S38
-----------------------	-----

## L

<i>Lecanicillium lecanii</i> . . . . .	98
<i>Lecanosticta acicola</i> . . . . .	16
legislative control . . . . .	35
legume seeds . . . . .	19

## M

M.9 rootstock . . . . .	1
metabolism . . . . .	33

<i>Metarhizum anisopilae</i> . . . . .	98
model experiments . . . . .	156
modelling . . . . .	S3
molecular diagnosis . . . . .	35
monogenic . . . . .	32
myrobalan . . . . .	144
mutation . . . . .	S3
mycotoxin DON . . . . .	S33
<i>Myzus persicae</i> . . . . .	161

## N

nested-PCR . . . . .	37
nitrate vulnerable zones . . . . .	38
nitrilase . . . . .	31
nitrogen . . . . .	38

## O

oil seed rape . . . . .	35, 36
<i>Ophiomyia</i> . . . . .	148
organic agriculture . . . . .	39
ornamental woody plant . . . . .	119
oviposition . . . . .	19

## P

pac choy . . . . .	36
partial resistance . . . . .	30
pathogenicity . . . . .	98
pathotype . . . . .	35
perennial weeds . . . . .	S63
<i>Peronospora harti</i> . . . . .	12
pest . . . . .	119, 148, S11, S48
pesticides . . . . .	39
pH . . . . .	36
<i>Phyllotreta</i> spp. . . . .	59, 156
phytobacterial pathogens . . . . .	S27
phytophagous insect . . . . .	59
phytoplasma . . . . .	S20
pigweed . . . . .	59
<i>Pinus uncinata</i> . . . . .	16
plant defense . . . . .	33
plant disease forecasting . . . . .	S3
plant pathology education . . . . .	126
plant viruses . . . . .	S20
<i>Plasmodiophora brassicae</i> . . . . .	31
plum . . . . .	144
<i>Plum pox virus</i> (PPV) . . . . .	144, S20
<i>Podosphaera xanthii</i> . . . . .	S41
polymerase chain reaction . . . . .	35
<i>Polymyxa</i> . . . . .	30
<i>Polymyxa betae</i> . . . . .	29
<i>Polymyxa graminis</i> . . . . .	29
<i>Pongamia glabra</i> . . . . .	161
population dynamics . . . . .	S3
potato . . . . .	29
powdery scab . . . . .	29

PPV-C . . . . .	144
PPV-D . . . . .	144
PPV-EA . . . . .	144
PPV-M . . . . .	144
PPV-Rec . . . . .	144
precipitation . . . . .	S48
prediction model . . . . .	S33
prevention . . . . .	34
proline . . . . .	33
protein degradation . . . . .	32
PTGS . . . . .	81

## Q

quarantine pest . . . . .	S38
quantitative-PCR . . . . .	35
quantitative trait loci (QTL) . . . . .	33

## R

race-specific . . . . .	33
receptor . . . . .	31
resistance . . . . .	32, 33
rhizomania . . . . .	30
ribotypes . . . . .	29
rice . . . . .	113
root-suckers . . . . .	1
RT-PCR . . . . .	140

## S

<i>Sclerotinia sclerotiorum</i> . . . . .	38
secondary succession . . . . .	59
seed color . . . . .	49
selection . . . . .	19
signal transduction . . . . .	29
<i>Soil-borne wheat mosaic virus</i> (SBWMV) . . . . .	29
sour cherry . . . . .	144
species . . . . .	148
<i>Spodoptera littoralis</i> . . . . .	161
<i>Spongospora subterranea</i> f.sp. <i>subterranea</i> . . . . .	29, 34
spreading . . . . .	S20
ssDNA . . . . .	81
<i>Strawberry latent ring spot virus</i> (SLRSV) . . . . .	140
sugar beet . . . . .	19
susceptibility . . . . .	38
sustainable . . . . .	144

## X

## T

taxonomy . . . . .	29
temperature . . . . .	36, S48
<i>Tetranychus urticae</i> . . . . .	161
<i>Tilletia indica</i> . . . . .	S38
tomato . . . . .	81
Tomato yellow leaf curl disease (TYLCV) . . . . .	81
transport . . . . .	32
trunk canker . . . . .	1

## U

U.S. Land Grant University . . . . .	126
--------------------------------------	-----

## V

<i>Verticillium longisporum</i> . . . . .	35
virus vector . . . . .	29

## W

weather conditions . . . . .	S33
weed control . . . . .	113
weeds . . . . .	156
weight loss . . . . .	19
wheat . . . . .	S38
whitefly . . . . .	81
white rot . . . . .	38
wild buckwheat . . . . .	59
wild sea beet . . . . .	30
winter oil-seed rape . . . . .	103
winter wheat . . . . .	S33

## X

<i>Xiphinema diversicaudatum</i> . . . . .	140
--	-----

## Y

yield . . . . .	39, 113
yield advantage . . . . .	148

## Z

<i>Zucchini yellow mosaic virus</i> (ZYMV) . . . . .	S20
--	-----