|  |  |
| --- | --- |
| 單　　位：農學院  植物醫學系  教師姓名：蔡文錫  現　　職：副教授  學　　歷：2008/06 國立中興大學植物病理學系 博士  　　　　　1993/06 國立中興大學分子生物學研究所 碩士  　　　　　1991/06 國立中興大學植物學系 學士    Name：Tsai, Wen-Shi  E-mail：[wenshi.tw@mail.ncyu.edu.tw](mailto:wenshi.tw@mail.ncyu.edu.tw), [wenshi.tw@yahoo.com.tw](mailto:wenshi.tw@yahoo.com.tw)  TEL：05-2717839 FAX：05-2717451 Mobil：0934330301 | D:\嘉大\應徵資料\TASI ws.jpg |
| 簡要經歷：  　　2014/08~迄今 國立嘉義大學植物醫學系 副教授  2009/01~2014/07 亞蔬 – 世界蔬菜中心植物病毒組 副研究員  1996/03~2008/12 亞蔬 – 世界蔬菜中心植物病毒組 高級研究助理 |
| 研究興趣（專長）：  植物病毒診斷鑑定、植物病毒分子檢測與基因分析、植物病毒流行病學、植物病毒病害管理、植物病毒抗病種原評估與應用、植物病毒轉基因抗性之研發 | |
| 主要教授課程：  植物病毒學特論、高等植物病毒學、植物病毒學與實驗、植物病蟲害診斷學與實驗、高等植物病害診斷技術、植物病原檢測技術之原理與應用、植物學、植物生理學與實驗、生物技術概論、植物流行病學、植物保護學、農業概論、植物醫學文獻選讀、文獻選讀、科學論文寫作、實務專題、農場實習、專業校外實習、微生物與生活 | |
| (A) 期刊論文   1. Chen, Y.-J., Lai, H.-C., Lin, C.-C., Neoh, Z.Y. and **Tsai, W.-S.** 2021. Genetic Diversity, Pathogenicity and Pseudorecombination of Cucurbit-Infecting Begomoviruses in Malaysia. Plants, 10, 2396. <https://doi.org/10.3390/plants10112396> 2. Lai, Y.-R., Lin, C.-H., Chang, C.-P., Ni, H.-F., **Tsai, W.-S.** and Huang, C.-J. 2021. Distribution of copper resistance gene variants of *Xanthomonas citri* subsp. *citri* and *Xanthomonas euvesicatoria* pv. *perforans*. Plant Protection Science 57 (3):206-216. https://doi.org/10.17221/160/2020-PPS 3. Chiu, S.-Y., Lai, Y.-R., **Tsai, W. -S.** and Huang, C.-J.\* 2021. First report of *Athelia rolfsii* causing collar rot of *Phalaenopsis* orchid in Taiwan. . [Journal of Plant Pathology](https://link.springer.com/journal/42161) 103 (2):697-698. https://doi.org/10.1007/s42161-021-00785-6 4. Chang, H.-Y., Chen, L.-C., Lin, C.-C. and **Tsai, W.-S.\*** 2021. First report of cucurbit chlorotic yellows virus infecting melon, watermelon and wild melon in the Philippines. [Journal of Plant Pathology](https://link.springer.com/journal/42161) 103 (2):681-682. https://doi.org/10.1007/s42161-021-00768-7 5. Li, W.-H., Mou, D.-F., Hsieh, C.-K., Weng, S.-H., **Tsai, W.-S**. and Tsai, C.-W.\* 2021. Vector Transmission of Tomato Yellow Leaf Curl Thailand Virus by the Whitefly Bemisia tabaci: Circulative or Propagative? Insects 12:181. https://doi.org/10.3390/insects12020181 6. Tsai, W.-A.\*, Weng, S.-H., Chen, M.-C., Lin, J.-S. and **Tsai, W.-S.** 2019. Priming of plant resistance to heat stress and tomato yellow leaf curl Thailand virus with plant-derived materials. Frontiers in Plant Science 10:906. doi: 10.3389/fpls.2019.00906 7. Nai, Y.-S., Ko, C.-Y., Hsu, P.-S., **Tsai, W.-S.,** Chen,Y.-W., Hsu, M.-H. and Sung, I.-H.\* 2018. The seasonal detection of AcSBV (*Apis cerana* sacbrood virus) prevalence in Taiwan. Journal of Asia-Pacific Entomology 21: 417-422. 8. Kang, Y.-C., Wang, Y.-C., Hsia, C.-M., **Tsai, W.-S.,** Huang, L.-H., Yeh, S.-D. and Chen, T.-C.\* 2018. Molecular characterization and detection of a genetically distinct Tomato chlorosis virus strain in Taiwan. Plant Disease 102(3):600-607. 9. Tu, Y.-C., **Tsai, W.-S.,** Wei, J.-Y., Chang, K.-Y., Tien, C.-C., Hsiao, H.-Y. and Fu, S.-F.\* 2017. The C2 protein of tomato leaf curl Taiwan virus is a pathogenicity determinant that interferes with expression of host genes encoding chromomethyleases. Physiologia Plantarum 161:515-531. 10. Huang, C.-J.\* and **Tsai, W.-S.** 2017. Occurrence and identification of *Stemphylium lycopersici* causing *Stemphylium* leaf spot disease on tomato in Taiwan. European Journal of Plant Pathology 148 (1):35-44. 11. Chen, H., Lin, C., **Tsai, W.,** Kenyon, L., Chan, M., Yen, J., Chang, S., de la Peña, R. and Schafleitner, R.\* 2016. Resistance to viral yellow leaf curl in tomato through RNAi targeting two Begomovirus species strains. [Journal of Plant Biochemistry and Biotechnology](http://link.springer.com/journal/13562) 25(2):199–207. 12. Weng, S.-H., **Tsai, W.-S.,** Kenyon, L. and Tsai, C.-W. 2015. Different transmission efficiencies may drive displacement of tomato begomoviruses in the fields in Taiwan. Annals of Applied Biology 166(2): 321-330. 13. Knierim, D., **Tsai, W.-S.,** Maiss, E. and Kenyon, L\*. 2014. Molecular diversity of poleroviruses infecting cucurbit crops in four countries reveals the presence of members of six distinct species. Archives of Virology, 159:1459-1465. 14. **Tsai, W.-S.,** Shih, S.-L., Lee, L.-M., Dolores, L. M. and Kenyon, L.\* 2014. First report of a novel begomovirus associated with yellow vein disease of Browne's Blechum (*Blechum pyramidatum*). Plant Disease, 98(5):701. 15. **Tsai, W.-S.,** Shih, S.-L., Rauf, A., Safitri, R., Hidayati, N., Huyen, B. T. T. and Kenyon, L. 2013. Genetic diversity of legume yellow mosaic begomoviruses in Indonesia and Vietnam. Annals of Applied Biology, 163:367-377. 16. **Tsai, W.-S.,** Shih, S.-L., Lee, L.-M., Wang, J.-T., Duangsong, U., and Kenyon, L.\* 2013. First report of *Bhendi yellow vein mosaic virus* associated with yellow vein mosaic of okra (*Abelmoschus esculentus*) in Thailand. Plant Disease, 97(2):291. 17. Knierim, D., **Tsai, W. -S.,** and Kenyon, L.\* 2013. Analysis of sequences from field samples reveals the presence of the recently described pepper vein yellows virus (genus *Polerovirus*) in six additional countries. Archives of Virology, 158(6):1337-1341. 18. Knierim, D., **Tsai, W.-S.,** Deng,T.-C., Green, S. K. and Kenyon, L.\* 2013. Full-length genome sequences of four polerovirus isolates infecting cucurbits in Taiwan determined from total RNA extracted from field samples. Plant Pathology, 62:633-641. 19. Kadirvel, P., de la Pen˜a, R., Schafleitner, R., Huang, S., Geethanjali, S., Kenyon, L., **Tsai, W.** and Hanson, P.\* 2013. Mapping of QTLs in tomato line FLA456 associated with resistance to a virus causing tomato yellow leaf curl disease. Euphytica, 190(2): 297-308. 20. Shih, S. -L., **Tsai, W. -S.,** Lee, L. -M. and Kenyon, L.\* 2013. Molecular characterization of begomoviruses infecting *Sauropus androgynus* in Thailand. Journal of Phytopathology 161:76-85. 21. Sengoda, V. G.\*, **Tsai, W.-S.,** de la Peña, R. C., Green, S. K., Liu, C. A., Kenyon, L. and Hughes, J. 2012. Expression of full length coat protein gene of Tomato leaf curl Taiwan virus is not necessary for recovery phenotype in transgenic tomato. Journal of Phytopathology 160:213-219. 22. Lin, C.-Y., **Tsai, W.-S.,** Ku, H.-M., and Jan, F.-J.\* 2012. Evaluation of DNA fragments covering the entire genome of a monopartite begomovirus for induction of viral resistance in transgenic plants via gene silencing. Transgenic Research 21:231-241. 23. **Tsai, W.-S.,** Shih, S.-L., Kenyon, L., Green, S. K. and Jan, F.-J.\* 2011. Temporal distribution and pathogenicity of the predominant tomato-infecting begomoviruses in Taiwan. Plant Pathology 60:787-799. 24. **Tsai, W.-S.,** Shih, S.-L., Venkatesan, S. G., Aquino, M. U., Green, S. K., Kenyon, L. and Jan, F.-J.\* 2011. Distribution and genetic diversity of begomovirusesinfecting tomatoand pepper plants in the Philippines. Annals of Applied Biology 158:275-287. 25. **Tsai, W. -S.,** Hu, C.-J., Shung, D.-P., Lee, L. -M., Wang, J. -T. and Kenyon, L.\* 2011. First report of *Squash leaf curl Philippines virus* infecting chayote (*Sechium edule*) in Taiwan. Plant Disease 95(9):1197. 26. Lin, C.-Y., Ku, H.-M., **Tsai, W.-S.,** Green, S. K. and Jan, F.-J.\* 2011. Resistance to a DNA and a RNA virus in transgenic plants by using a single chimeric transgene construct. Transgenic Research 20:261-270. 27. **Tsai, W.-S.,** Abdourhamane, I. K. and Kenyon, L.\* 2010. First report of *Pepper veinal mottle virus* associated with mosaic and mottle diseases of tomato and pepper in Mali. Plant Disease 94(3):378. 28. **Tsai, W.-S.,** Abdourhamane, I. K., Knierim, D., Wang, J.-T. and Kenyon, L.\* 2010. First report of *Zucchini yellow mosaic virus* associated with leaf crinkle and yellow mosaic diseases of cucurbit plants in Mali. Plant Disease 94 (7):923. 29. Chang, H.-H., Ku, H.-M., **Tsai, W.-S.,** Chien, R.-C. and Jan, F.-J.\* 2010. Identification and characterization of a mechanical transmissible begomovirus causing leaf curl on oriental melon. European Journal of Plant Pathology 127:219-228. 30. Shih, S.-L., **Tsai, W.-S.,** Lee, L.-M., Wang, J.-T., Green, S. K. and Kenyon, L.\* 2010. First report of *Tomato yellow leaf curl Thailand virus* associated with pepper leaf curl disease in Taiwan. Plant Disease 94(5):637. 31. Knierim, D., Deng, T.-C., **Tsai, W.-S.,** Green, S. K. and Kenyon, L.\* 2010. Molecular identification of three distinct Polerovirus species and a recombinant Cucurbit aphid-borne yellows virus strain infecting cucurbit crops in Taiwan. Plant Pathology 59(5):991-1002. 32. **Tsai, W.-S.,** Shih, S.-L., Green, S. K., Lee, L.-M., Luther, G. C., Ratulangi, M., Sembel, D. T. and Jan, F.-J.\* 2009. Identification of a new begomovirus associated with yellow leaf curl diseases of tomato and pepper in Sulawesi, Indonesia. Plant Disease 93(3):321. 33. Shih, S.-L.\*, Kumar, S., **Tsai, W.-S.,** Lee, L.-M. and Green, S. K. 2009. Complete nucleotide sequences of okra isolates of *Cotton leaf curl Gezira virus* and their associated DNA-β from Niger. Archives of Virology 154:369-372. 34. **Tsai, W.-S.,** Huang, Y.-C., Zang, D.-Y., Reddy, K., Hidayat, S. H., Srithongchai, W., Green, S. K. and Jan, F.-J.\* 2008. Molecular characterization of the CP gene and 3’UTR of *Chilli veinal mottle virus* from South and Southeast Asia. Plant Pathology 57:408-416. 35. **Tsai, W.-S.\*,** Shih, S.-L., Green, S. K. and Jan, F.-J. 2007. Occurrence and Molecular Characterization of *Squash leaf curl Philippines begomovirus* in Taiwan. Plant Disease 91:907. 36. Jan, F.-J.\*, Green, S. K., Shih, S.-L., Lee, L.-M., Ito, H., Kimbara, J., Hosoi, K. and **Tsai, W.-S.** 2007. First report of *Tomato yellow leaf curl Thailand virus* in Taiwan. Plant Disease 91:1363. 37. Shih, S.-L.\*, **Tsai, W.-S.,** Green, S. K. and Singh, D. 2007. First report of Tomato leaf curl Joydebpur virus infecting chilli in India. Plant Pathology 56:341. 38. Shih, S.-L.\*, Green, S. K., **Tsai, W.-S.,** Lee, L.-M. and Levasseur, V. 2007. First report of a distinct begomovirus associated with okra yellow crinkle disease in Mali. Plant Pathology 56:718. 39. **Tsai, W.-S.\*,** Shih, S.-L., Green, S. K., Rauf, A., Hidayat, S. H. and Jan, F.-J. 2006. Molecular characterization of pepper yellow leaf curl Indonesia virus in leaf curl and yellowing diseased tomato and pepper in Indonesia. Plant Disease 90:247. 40. **Tsai, W.-S.\*,** Shih, S.-L., Green, S. K., Akkermans, D., Hidayat, S. H. and Jan, F.-J. 2006. Molecular characterization of a distinct tomato-infecting begomovirus associated with yellow leaf curl diseased tomato in Lembang, Java Island of Indonesia. Plant Disease 90:831. 41. Shih, S.-L.\*, Green, S. K., **Tsai, W.-S.** and Ssekyewa, C. 2006. Molecular characterization of a begomovirus associated with tomato leaf curl disease in Uganda. Plant Disease 90:246. 42. Shih, S.-L.\*, Green, S. K., **Tsai, W.-S.,** Lee, L.-M., Wang, J.-T. and Tesfaye, A. 2006. First report of a begomovirus associated with tomato yellow leaf curl disease in Ethiopia. Plant Disease 90:974. 43. Shih, S.-L.\*, **Tsai, W.-S.,** Green, S. K. and Lee, L.-M. 2006. Molecular characterization of a distinct begomovirus associated with tomato leaf curl disease in Arusha of Tanzania. Plant Disease 90:1550. 44. **Tsai, W.-S.\*,** Shih, S. -L., Green, S. K., Hanson, P. and Liu, H. Y. 2004. First report of the occurrence of tomato chlorosis virus and tomato infectious chlorosis virus in Taiwan. Plant Disease 88:311. 45. Bull, S. E.\*, **Tsai, W.-S.,** Briddon, R. W., Markham, P. G., Stanley, J. and Green, S. K. 2004. Diversity of begomovirus DNA β satellites of non-malvaceous plants in South East Asia. Archives of Virology 149:1193-1200. 46. Green, S. K., **Tsai, W.-S.\*,** Shih, S.-L., Rezaian, M. A. and Duangsong, U. 2003. Molecular characterization of a new *Begomovirus* associated with tomato yellow leaf curl and eggplant yellow mosaic diseases in Thailand. Plant Disease, 87:446. 47. Shih, S.-L.\*, **Tsai, W.-S.,** Green, S. K., Hanson, P., Valand, G. B. and Kalloo, G. 2003. Molecular characterisation of a new tomato begomovirus from India. Plant Disease, 87(5):598. 48. Shih, S.-L.\*, **Tsai, W.-S.,** Green, S. K., Khalid, S., Ahmad, I., Rezaian, M. A. and Smith, J. 2003. Molecular characterization of tomato and chilli leaf curl begomoviruses from Pakistan. Plant Disease, 87:200. 49. Green, S. K.\*, **Tsai, W.-S.,** Shih, S.-L., Black, L. L., Rezaian, A., Rashid, M. H., Roff, M. M. N., Myint, Y. Y. and Hong, L. T. A. 2001. Molecular characterization of begomoviruses associated with leafcurl disease in Bangladesh, Laos, Malaysia, Myanmar, and Vietnam. Plant Disease 85:1286. | |
| (B) 研討會論文  國際及兩岸   1. **Tsai, W.-S.\*** 2019. Identification of squash resistance against leaf curl begomovirus in Taiwan.International Symposium on Virus Diseases of important Crops, 3-5September 2019, National Chung Hsing University, Taichung, Taiwan. Invited speaker 2. Chen Y.-J. and **Tsai, W.-S.\*** 2019. Genetic diversity of cucurbit-infecting begomoviruses in Malaysia.TheAmerican Phytopathological Society Annual Meeting, 4-7August 2019, Cleveland, Ohio, USA. Poster presentation. 3. **Tsai, W.-S.\*** 2018. Identification of resistances in pumpkin (*Cucurbita moschata*) accessions against *Squash leaf curl Philippines virus* in Taiwan**.** 11th International Congress of Plant Pathology, 28 July- 3 August 2018, Boston, USA. Poster presentation 4. **Tsai, W.-S.\*** 2018. The cucurbit viruses and their management in South and Southeast Asia. Asian Cucurbits Round Table 2018-Challenges & Future Trends in R&D for Cucurbit Crops in Asia, 19-21 July 2018, Kasetsart University, Thailand. Invited speaker 5. **Tsai, W.-S.\*** and Shen, L.-T. 2017. Genetic diversity of pepper and tomato-infecting begomoviruses in Eastern Thailand. TheAmerican Phytopathological Society Annual Meeting, 5-9 August 2017, San Antonio, Texas, USA. Poster presentation. Phytopathology, (Supplement): S. 6. **蔡文錫\***。 2017。台灣Begomovirus病毒病害之研究概況。2017年海峽兩岸植物病理學術研討會。2017年9月1-6日，華中農業大學，武漢市，中國湖北省。Invited speaker 7. **蔡文錫\***。 2017。茄科Begomovirus病毒病害及其管控。2017年海峽兩岸植物保護博士後論壇暨青年學術研討會。2017年6月25-28日，福州市，中國福建省。Invited speaker 8. **Tsai, W.-S.\*** and Kenyon, L. 2015. Molecular identification of eggplant-infecting begomoviruses in Southeast Asia. TheAmerican Phytopathological Society Annual Meeting, 1-5 August 2015, Pasadena, CA, USA. Poster presentation. Phytopathology, 105 (Supplement 4): S4.13. 9. Schafleitner, R.\*, Lin, C., Rotter, B., Lin, J., Wang, J., Cherng, S., Kenyon, L., Dgillon, N. and **Tsai, W**. 2015. Identification of candidate resistance genes against *Squash leaf curl Philippine virus* in pumpkin (*Cucurbita moschata*) by bulked segregant analysis and massive analysis of cDNA ends. Plant and Animal Genome XXIII, 10-14 January 2015, San Diego, CA, USA. Poster presentation 10. **蔡文錫\***。 2015。遠東地區茄科Begomovirus之分布與多樣性。2015年海峽兩岸植物病理學術研討會。2015年5月19-20日，國立中興大學，台中，台灣。Invited speaker 11. Gniffke, P. A., Shieh, S.-C., Lin, S.-W., Sheu, Z.-M., Chen, J.-R., Ho, F.-I., **Tsai, W.-S.,** Chou, Y.-Y., Wang, J.-F., Cho, M. C., Schafleitner, R., Kenyon, L., Ebert, A. W., Srinivasan, R. and Kumar, S.\* 2013. Pepper research and breeding at AVRDC – The World Vegetable Center. XV EUCARPIA Meeting on Genetics and Breeding of Capsicum and Eggplant, 2-4 September 2013, Torino, Italy. Invited speaker 12. **Tsai, W.-S.\*,** Hanson, P. and Kenyon, L. 2013. Reaction of tomato lines carrying different *Ty*-gene combinations to leaf curl viruses in Taiwan. Acta Phytopathologica Sinica, 43:103. Poster presentation in the ICPP 2013, 10th International Congress of Plant Pathology, 25-30 August, 2013, Beijing, China. Poster presentation 13. **Tsai, W.-S.,** Kenyon, L., Hanson, P., Shih, S.-L. and Jan, F. -J.\* 2013. Tomato leaf curl disease in Taiwan and breeding for resistance against it. IN: Proceeding of the 2013 International Symposium on Insect Vectors and Insect-Borne Diseases. Eds Chang, C. -J., Lee, C. -Y. and Shih, H. -T., 6-8 August, 2013, Held at Agriculture Research Institute, Taichung, Taiwan, ROC. Invited speaker 14. **Tsai, W.-S.\*,** Hanson, P., Shih, S. L. and Kenyon, L. 2013. Tomato leaf curl disease in Taiwan and breeding for resistance against it. IN: 2013年海峽兩岸植物病理學青年科學家論壇, 1-6 September, 2013, Held at Chinese Society for Plant Pathology, Beijing, China. 15. Weng, S.-H., **Tsai**,**W.-S.,** and Tsai, C.-W.\* 2012. Transmission biology of two tomato begomoviruses by *Bemisia tabaci*. The Entomological Society of America Annual Meeting, 11-14 November 2012, Knoxville, TN, USA. Poster presentation 16. **Tsai, W.-S.\*,** Shih, S.-L., Safitri, R., Huyen, B. T. T. and Kenyon, L. 2012. Molecular identification of legume-infecting begomoviruses in Southeast Asia. TheAmerican Phytopathological Society Annual Meeting, 4-8 August 2012, Providence, Rohde Island, USA. Poster presentation 17. **蔡文錫**、林靜宜、施夙玲、Lawrence Kenyon、詹富智\* 2011. 台灣主要感染番茄 Begomoviruses 之抗性、時間分布與病原性研究.海峽兩岸植物病理學術研討會-兩岸重大植物病害之防檢疫及其近代科研進展. 2011年5 月25-26 日. 國立台灣大學. 台北。台灣。 18. **Tsai, W.-S.,** Shih, S.-L., Kenyon, L. Green, S. K., and Jan, F.-J.\* 2011 Temporal distribution and pathogenicity of the predominant tomato-infecting begomoviruses in Taiwan. 第九屆海峽兩岸植物分子生物學及生物技術學術研討會. 2011年1 月18-19 日. 台中。台灣。 19. Kadirvel, P.\*, de la Peña, R., Geethanjali, S., Kenyon, L., **Tsai, W.-S.** andHanson, P. 2010. Mapping of QTLs associated with resistance to a virus causing Tomato yellow leaf curl disease (TYLCD) in tomato.7th Solanaceae Conference, 5-9 September 2010, Dundee, Scotland. Oral presentation 20. Chang, H.-H., Ku, H.-M., **Tsai, W.-S.,** Chien R.-C., and Jan, F.-J.\* 2009. Molecular and biological characterization of a mechanically transmissible Tomato leaf curl New Delhi virus infecting oriental melon plants. TheAmerican Phytopathological Society Annual Meeting, 1-5 August 2009, Portland, Oregon, USA. Phytopathology 99: S21. Poster presentation 21. **Tsai, W.-S.\*,** Jan, F.-J., Green, S. K., Shih, S.-L., Lee, L.-M. and Kenyon, L. 2009. Molecular characterization and resistance screening of *Tomato yellow leaf curl Thailand virus* in Taiwan. Fifth International *Bemisia* Workshop, 9-12 November 2009, Guangzhou, P. R. China. Oral presentation 22. **Tsai, W.-S.,** Huang, Y.-C., Zang, D.-Y., Reddy, K., Hidayat, S. H., Srithongchai, W., Green, S. K. and Jan, F.-J.\* 2008. Characterization of the CP gene and 3’UTR of *Chilli veinal mottle virus* from China, India, Indonesia, Taiwan and Thailand. 9th International Congress of Plant Pathology, 24-29 August 2008, Turin, Italy. Journal of Plant Pathology 90 (S2): S2384-385. Poster presentation 23. Lin, C.-Y., **Tsai, W.-S.,** Green, S. K. and Jan, F.-J.\* 2007. Evaluation of the global genome of *Tomato leaf curl virus* for controlling geminiviruses via gene silencing. The American Phytopathological Society/ the Society of Nematologists Joint Meeting, 28 July-1 August, 2007, San Diego, California, USA. Phytopathology 97:S22. Oral presentation 24. Green, S. K.\*, Shih, S.-L., **Tsai, W.-S.,** Wang, J.-T. and Lee, L.-M. 2007 Evaluation of field management practices for the reduction of Tomato leafcurl virus (ToLCV) on tomato and Cucumber mosaic virus (CMV) of pepper p.101 In: 2007 Workshop on plant insect-borne diseases and protection (Oct.26, NCHU, Taichung, R. O. C.) Bureau of Animal and Plant Health Inspection and Quarantine, Taipei and National Chung Hsing University, Taichung, R.O.C. 278 pp. Oral presentation 25. Green, S. K.\*, **Tsai, W.-S.,** Shih, S.-L., Huang, Y.-C. and Lee, L.-M. 2005. Diversity of begomoviruses of tomato and weeds in Asia. In: Proceeding of the international seminar on whitefly management and control strategy, 3-8 October, 2005, Held at Agriculture Research Institute, Taichung, Taiwan, ROC. Oral presentation 26. Green, S. K.\*, **Tsai, W.-S.,** Shih, S.-L. and Rezaian A. 2001. Molecular characterisation and phylogenetic relationships of tomato geminiviruses in Australasia. p.37; In: Programme and Abstracts 3rd International Geminivirus Symposium, 24-28 July, John Innes Centre, Norwich, UK. Poster presentation 27. Hsu, Y.-H.\*, **Tsai, W.-S.** and Chu, C.-L. 1994. Association of CMV coat protein and RNAs with chloroplasts in tobacco. The American Phytopathological Society Annual Meeting, 1994, Albuquerque, New Mexico. Poster presentation   國內   1. 賴玄春、梁專譯、簡宏益、蔡文錫\*。2021。Begomovirus對抗病基因*Ty-1/3*及*Ty-2*堆疊之影響。中華民國植物病理學會109年度年會。中華民國**110**年**5**月**1**日，國立臺灣大學，臺北市，台灣。口頭報告 2. Neoh, Z.-Y., Lai, H.-C., Ou Yang, F.-Y., **Tsai, W.-S.\*** 2020. First Report of a Phytoplasma 16SrII Associated with Soybean Witches’-Broom Disease in Taiwan. 2020 Annual Meeting of Plant Protection Society, R. O. C., 27 November 2020, National Chung Hsing University, Taichung, Taiwan. Oral presentation 3. Chang, H.-Y., Chen, L.-C., Lin, C.-C., Tsai, W.-S.\*2020. First Report of Cucurbit Chlorotic Yellows Virus Infecting Melon, Watermelon and Wild melon in the Philippines. 2020 Annual Meeting of Plant Protection Society, R. O. C., 27 November 2020, National Chung Hsing University, Taichung, Taiwan. Oral presentation 4. Lai, H.-C., Tsai, W.-S.\* 2020. Distribution and Genetic Diversity of Tomato Begomoviruses in Taiwan. 2020 Annual Meeting of Plant Protection Society, R. O. C., 27 November 2020, National Chung Hsing University, Taichung, Taiwan. Oral presentation 5. Jian, H.-Y., Lai, H.-C., Tsai, W.-S.\* 2020. Genetic diversity of tomato leaf curl disease satellite DNA-β in Taiwan. 2020 Annual Meeting of Plant Protection Society, R. O. C., 27 November 2020, National Chung Hsing University, Taichung, Taiwan. Oral presentation 6. **蔡文錫\***。2017。茄科Begomovirus病毒病害及其永續綜合管理。2017年中國化學年會。2017年12月1-2日，國立嘉義大學，嘉義市，台灣。Invited speaker 7. Xie, X.-Y, and **Tsai, W.-S.\*** 2017. Molecular detection of a begomovirus associated with sida yellow vein disease in Thailand. The 2016 Annual Meeting of Plant Pathology, R. O. C., 28-29 April 2017, National Chung Hsing University, Taichung, Taiwan. Oral presentation 8. Kang, Y.-T., Lai, H.-S. and **Tsai, W.-S.\*** 2016. Molecular characterization of a distinct begomovirus associated with golden mosaic symptom of velvet bean (*Mucuna pruriens*) in Taiwan. The 2015 Annual Meeting of Plant Pathology, R. O. C., 29-30 April 2016, National Chung Hsing University, Taichung, Taiwan. Oral presentation 9. **Tsai, W.-S.,** Shih, S.-L., Kenyon, L. Green, S. K., and Jan, F.-J.**\*** 2010. Temporal distribution and pathogenicity of the predominant tomato-infecting begomoviruses in Taiwan. **2010**前瞻植物生物科技研討會. 2010中華植物學會年會. 2010年11月13-14日.南投集集. 行政院農委會特有生物研究保育中心. 10. **Tsai, W.-S.\*,** Kenyon, L., Green, S. K., Shih, S.-L., Lee, L.-M., Aquino, M. U. and Jan, F.-J. 2010. Molecular diversity of tomato- and pepper-infecting begomoviruses in the Philippines. Plant Pathology Bulletin, Taiwan, ROC 19: 97-98. Oral presentation 11. **Tsai, W. -S.\*,** Shih, S.-L., Green, S. K., Lee, L.-M., Luther, G. C., Ratulangi, M., Sembel, D. T. and Jan, F.-J.\* 2009. Molecular identification of a new tomato-infecting begomovirus associated with yellow leaf curl diseases in Sulawesi, Indonesia. Plant Pathology Bulletin, Taiwan, ROC 18: 81-82. Oral presentation 12. **Tsai, W.-S.\*,** Green, S. K., Shih, S.-L., Lee, L.-M and Jan, F.-J.\* 2009. Molecular diversity and resistance screening of *Tomato yellow leaf curl Thailand virus* in Taiwan. Plant Pathology Bulletin, Taiwan, ROC 18: 82-83. Oral presentation 13. Chang, H.-H., Chien, R.-C., **Tsai, W.-S.** and Jan, F.-J.\* 2009. Characterization of the pathogenicity and mechanical transmissibility of *Tomato leaf curl New Delhi begomovirus* with agrobacteria-mediated delivery system. Plant Pathology Bulletin, Taiwan, ROC 18: 96-97. Oral presentation 14. **Tsai, W.-S.\*,** Huang, Y.-C., Green, S. K. and Jan, F.-J.\* 2008. Molecular characterization of the CP gene and 3′UTR of *Chilli veinal mottle virus* from South and Southeast Asia. Plant Pathology Bulletin, Taiwan, ROC 17: 95-96. Oral presentation 15. Chien, R. C., **Tsai, W.-S.,** Green, S. K. and Jan, F.-J.\* 2008. Identification and characterization of a mechanically transmissible *Tomato leaf curl New Delhi virus* infecting oriental melon. Plant Pathology Bulletin, Taiwan, ROC 17: 84. Oral presentation 16. Tsa**i, W.-S.\*,** Shih, S.-L., Lee, L.-M., Jan, F.-J. and Green, S. K. 2006. Occurrence and molecular characterization of Squash leaf curl Philippines begomovirus in Taiwan. Plant Pathology Bulletin, ROC 15:306-307. Oral presentation 17. **Tsai, W.-S.\*,** Jan, F.-J. Huang, Y.-C. and Green, S. K. 2005. Molecular characterization of five strains of chilli veinal mottle virus (ChiVMV) in Taiwan. Plant Protection Bulletin, ROC 47:429-430. Oral presentation 18. Green, S. K., Shih, S.-L., Lee, L.-M., Wang, J.-T., **Tsai. W.-S.**, Chen, J.-T., Chen, H.-M., Liu, C.-A. and Ko, C.-C. 2004. Multilocation testing of ToLCV resistance sources and resistant tomato hybrids in Taiwan. Plant Protection Bulletin, ROC 46:416-417. Oral presentation 19. Shih, S.-L.\*, Green, S. K., Lee, L.-M., Wang, J.-T., **Tsai. W.-S.,** Ledesma, D. R. and Chen, J.-T. 2004. On-farm evaluation of tomato leaf curl disease control measures in Taiwan. Plant Protection Bulletin, ROC 46:417-418. Oral presentation 20. **Tsai, W.-S.\*,** Shih, S.-L., Green, S. K. and Guo, S.-H. 2003. Survey for tomato geminiviruses in Taiwan by the use of specific primers and identification of a third distinct tomato geminivirus. Plant Protection Bulletin, ROC 45:390-391. Oral presentation 21. **Tsai, W.-S.\*,** Shih, S.-L., and Green, S. K. 2002. Genetic diversity of *Ageratum yellow vein Taiwan virus* and infectivity on Tomato. Plant Protection Bulletin, ROC 44:361. Oral presentation 22. Shih, S.-L.\*, Singh, G., **Tsai, W.-S.,** Green, S. K. and Shanmugasundaram, S. 2002. Mungbean Yellow Mosaic Geminivirus Detection on Mungbean Seeds. Plant Protection Bulletin, ROC 44:361-362. Oral presentation 23. **Tsai, W.-S.\*,** Shih, S.-L. and Green, S. K. 2001. Molecular characterization of a new tomato leaf curl begomovirus in Taiwan. Plant Protection Bulletin, ROC 43:247. Oral presentation 24. Khalid, S., Ahmad, I., Shih, S.-L., **Tsai, W.-S.\*,** Smith, J. and Green, S. K. 2001. Molecular characterization of tomato and chili leaf curl begomoviruses from Pakistan. Plant Protection Bulletin, ROC 43:247-248. Oral presentation 25. **Tsai, W.-S.\*,** Shih, S.-L. and Green, S.K. 2000. Molecular characterization of tomato leaf curl and *Ageratum* yellow vein begomoviruses in Taiwan. Plant Protection Bulletin, ROC 42:262-263. Oral presentation 26. **Tsai, W.-S.\*,** Liu, H. Y., Shih, S.-L. and Green, S. K. 1998. First report of the occurrence of tomato chlorosis virus (ToCV) on tomato in Taiwan. Plant Protection Bulletin, ROC 40(4):435-436. Oral presentation 27. Shih, S.-L., **Tsai, W.-S.\*,** Nakhla, M. K., Maxwell, D. P., Rashid, M. H. and Green, S. K. 1998. Molecular comparison of two tomato leafcurl viruses from Bangladesh. Plant Protection Bulletin, ROC 40:436-437. Oral presentation | |
| (C) 專書及評論   1. **Tsai, W.-S.\*,** Huang, C.-J. 2017. Chapter 11: Begomovirus in Taiwan. In: Saxena S., Tiwari A. (eds) Begomoviruses: Occurrence and Management in Asia and Africa. Springer, Singapore, pp. 187-205. 2. Kenyon, L.\*, **Tsai, W.-S.,** Shih, S.-L., Lee, L.-M. 2014. Emergence and diversity of begomoviruses infecting solanaceous crops in East and Southeast Asia. Virus Research, 186:104-113. (SCI) 3. Kenyon, L.\*, Kumar, S., **Tsai, W.-S.,** Hughes, J. d’A. 2014. Chapter 6: Virus diseases of peppers (*Capsicum* spp.) and their control. Advances in Virus Research 90:297-354. 4. **Tsai, W.-S.\*,** Kenyon, L., Hanson, P., Shih, S.-L. and Jan, F.-J.\* 2013. Tomato leaf curl disease in Taiwan and breeding for resistance against it. Plant Pathology Bulletin, 22:327-337. 5. Lin, C.-Y., **Tsai, W.-S.,** Ku, H.-M. and Jan, F.-J.\* 2009 Transgenic strategies for developing transgenic plants with geminivirus resistance. Plant Pathology Bulletin, Taiwan, 18:185-200. (in Chinese) | |
| (D) 技術報告及其他   1. Hanson, P., Lin, L.-J., Luther, G. C., **Tsai, W.-S.,** Srinivasan, R., Chen, C.-H., Lin, C.-H., Sheu, Z.-M., and Lu, S.-F. 2011. Procedures for tomato variety field trials. AVRDC International Cooperators’ Guide. AVRDC Publication No. 11-751. 10 p. 2. 蔡文錫\* 2011.瓜類捲葉病毒病及其防治簡介.園藝之友 (in Chinese) 3. **Tsai, W.-S.\*,** Shih, S.-L. and Green, S. K. 2007. Tomato (yellow) leaf curl disease – an introduction. Agriculture World, Taiwan, R.O.C.289:32-38 (in Chinese) | |