



DAFTAR PUSTAKA

- Abdurrazak, A., M. Hatta, dan A. Marliah. 2013. Pertumbuhan dan hasil tanaman mentimun (*Cucumis sativus L.*) Akibat perbedaan jarak tanam dan jumlah benih per lubang tanam. *Jurnal Agrista Unsyiah* 17(2): 55–59.
- Adams, M. J., S. Adkins, C. Bragard, D. Gilmer, D. Li, S. A. MacFarlane, S. M. Wong, U. Melcher, C. Ratti, and K. H. Ryu. 2017. ICTV virus taxonomy profile: Virgaviridae. *Journal of General Virology* 98(8): 1999–2000.
- Agrios, G. N. 2005. *Plant Pathology*. 5thed. Elsevier Academic Press, London.
- Akbar, A., Z. Ahmad, F. Begum, Ubairah, and N. Raees. 2015. Varietal Reaction of Cucumber against Cucumber mosaic virus. *American Journal of Plant Sciences* 06(07): 833–838.
- Al-Shahwan, I. M. and O. A. Abdalla. 1992. A strain of cucumber green mottle mosaic virus (CGMMV) from bottlegourd in Saudi Arabia. *Journal of Phytopathology* 134(2):152-156.
- Amin, A. R. 2015. Mengenal budidaya mentimun melalui pemanfaatan media informasi. *Jupiter* 14(1): 66–71.
- Antignus, Y., Y. Wang, M. Pearlsman, O. Lachman, N. Lavi, and A. Gal-On. 2001. Biological and molecular characterization of a new cucurbit-infecting Tobamovirus. *Phytopathology* 91(6): 565–571.
- Awasthi, L.P. 2020. *Applied Plant Virology: Advances, Detection, and Antiviral Strategies*. Elsevier Academic Press, London.
- Babu, B., V. Hegde, T. Makeshkumar, and M. L. Jeeva. 2011. Detection and identification of Dasheen mosaic virus infecting Colocasia esculenta in India. *Indian Journal of Virology* 22(1): 59–62.
- Badan Pusat Statistik. 2019. *Statistik Indonesia 2019*. Badan Pusat Statistik Indonesia, Jakarta.
- Boykin, L. M., R. G. Shatters, R. C. Rosell, C. L. McKenzie, R. A. Bagnall, P. De Barro, and D. R. Frohlich. 2007. Global relationships of *Bemisia tabaci* (Hemiptera: Aleyrodidae) revealed using Bayesian analysis of mitochondrial COI DNA sequences. *Molecular Phylogenetics and Evolution* 44(3): 1306–1319.
- Brown, J. K. 2008. Plant Resistance to Viruses: Geminiviruses. *Encyclopedia of Virology*: 164–170.



Brown, J. K. 2009. Phylogenetic Biology of the *Bemisia tabaci* Sibling Species Group. In: *Bemisia: Bionomics and Management of a Global Pest*. Springer, Dordrecht, p: 31–67.

Brown, J. K., F. M. Zerbini, J. Navas-Castillo, E. Moriones, R. Ramos-Sobrinho, J. C. F. Silva, E. Fiallo-Olivé, R. W. Briddon, C. Hernández-Zepeda, A. Idris, V. G. Malathi, D. P. Martin, R. Rivera-Bustamante, S. Ueda, and A. Varsani. 2015. Revision of Begomovirus taxonomy based on pairwise sequence comparisons. *Archives of virology* 160(6): 1593–1619.

Cantú-Iris, M., G. Pastor-Palacios, J. A. Mauricio-Castillo, B. Bañuelos-Hernández, J. A. Avalos-Calleros, A. Juárez-Reyes, R. Rivera-Bustamante, and G. R. Argüello-Astorga. 2019. Analysis of a new Begomovirus unveils a composite element conserved in the CP gene promoters of several Geminiviridae genera: Clues to comprehend the complex regulation of late genes. *PLoS ONE* 14(1): 1–24.

Czosnek, H., A. Hariton-Shalev, I. Sobol, R. Gorovits, and M. Ghanim. 2017. The incredible journey of Begomoviruses in their whitefly vector. *Viruses* 9(273): 1–19.

Daryono, B. S. and K. T. Natsuaki. 2009. Survey on the occurrence of viruses infecting cucurbits in Yogyakarta and Central Java. *Jurnal Perlindungan Tanaman Indonesia* 15(2): 83–89.

Daryono, B. S., T. Joko, A. Liana, and U. Saraswati. 2011. Biological and molecular characterization of a new isolate of Cucumber Green Mottle Mosaic Virus (CGMMV) in Indonesia. Proceeding of The XV International Congress of Virology, Sapporo-Japan.

De Barro, P. J., S. S. Liu, L. M. Boykin, and A. B. Dinsdale. 2011. *Bemisia tabaci*: A statement of species status. *Annual Review of Entomology* 56: 1–19.

Dovas, C. I., K. Efthimiou, and N. I. Katis. 2004. Generic detection and differentiation of tobamoviruses by a spot nested RT-PCR-RFLP using dI-containing primers along with homologous dG-containing primers. *Journal of Virological Methods* 117(2): 137–144.

Fauquet, C. M. and M. S. Nawaz-ul-Rehman. 2008. Emerging Geminiviruses. *Encyclopedia of Virology*, 97–105.

Fauziah, N. 2020. Identifikasi Spesies Virus Anggota Genus Begomovirus pada Lahan Campuran Tanaman Famili Solanaceae. Skripsi. Universitas Gadjah Mada (Tidak dipublikasi).

Fiallo-olivé, E., F. M. Zerbini, R. W. Briddon, D. P. Martin, J. Navas-castillo, P. Roumagnac, and A. Varsani. 2017. *Geminiviridae*. https://talk.ictvonline.org/ictv-reports/ictv_online_report/ssdna-viruses/w/geminiviridae. Diakses pada tanggal 28 September 2020.



Geering, A. D. W. and J. W. Randles. 2012. Virus Diseases of Tropical Crops. https://onlinelibrary.wiley.com/doi/abs/10.1002/9780470015902.a0000767.pub_2. Diakses pada tanggal 25 April 2020.

Ghanim, M., S. Morin, M. Zeidan, and H. Czosnek. 1998. Evidence for transovarial transmission of tomato yellow leaf curl virus by its vector, the whitefly *Bemisia tabaci*. *Virology*, 240(2): 295–303.

Gruda, N., G. Sallaku, and A. Balliu. 2017. Cucumber. In Good Agricultural Practices for greenhouse vegetable production in the South East European countries - Principles for sustainable intensification of smallholder farms. FAO, Rome, p: 287–300.

Grumet, R. N. Katzir and J. Gracia-Mas. 2017. Genetics and Genomics of Cucurbitaceae. Springer, Cham.

Haerunisa, R., G. Suastika, dan T. A. Damayanti. 2016. Identifikasi Begomovirus yang berasosiasi dengan penyakit kuning pada mentimun di Jawa Barat dan Bali. *Jurnal Hortikultura Indonesia* 7(1): 1–9.

Hamida, R., dan C. Suhara. 2016. Pengaruh infeksi cucumber mosaic virus (CMV) terhadap morfologi, anatomi, dan kadar klorofil daun tembakau cerutu. *Buletin Tanaman Tembakau, Serat & Minyak Industri* 5(1): 1–11.

Hanssen, I. M., M. Lapidot, and B. P. H. J. Thomma. 2010. Emerging viral diseases of tomato crops. *Molecular Plant-Microbe Interactions* 23(5): 539–548.

Hendrival, P. Hidayat, dan A. Nurmansyah. 2011. kisaran inang dan dinamika populasi *Bemisia tabaci* (Gennadius) (Hemiptera: Aleyrodidae) di pertanaman cabai merah. *Jurnal Hama dan Penyakit Tumbuhan Tropika* 11(1): 47–56.

Hussain, M., S. Mansoor, S. Iram, Y. Zafar, and R. W. Briddon. 2004. First report of Tomato leaf curl New Delhi affecting chilli pepper in Pakistan. *Plant Pathology* 53(6): 794.

Hull, R. 2002. Matthews' Plant Virology. 4th ed. Elsevier Academic Press, London.

Indrayani, I. G. A. A. dan E. Sulistyowati. 2020. Pengaruh kerapatan bulu daun pada tanaman kapas terhadap kolonisasi *Bemisia tabaci* Gennadius. *Jurnal Penelitian Tanaman Industri*, 11(3), 101–106.

Integrated Taxonomic Information System. 2011. *Cucumis sativus* L. https://www.itis.gov/servlet/SingleRpt/SingleRpt?search_topic=TSN&search_value=22364#null. Diakes pada 28 April 2020.

International Committee on Taxonomy of Viruses. 2019. Taxonomy. <https://talk.ictvonline.org/>. Diakses pada tanggal 18 Mei 2020.



Jacquemond, M. 2012. Cucumber mosaic virus. *Advances in Virus Research* 84: 439–504.

Jeong, J. J., H. J. Ju, and J. Noh. 2014. A review of detection methods for the plant viruses. *Research in Plant Disease* 20(3): 173–181.

Jones, D. R. 2003. Plant viruses transmitted by whiteflies. *European Journal of Plant Pathology*, 109(3), 195–219.

Jones, R. A. C. and R. A. Naidu. 2019. Global Dimensions of Plant Virus Diseases: Current Status and Future Perspectives. *Annual Review of Virology* 6: 387–409.

Juárez, M., M. P. Rabádan, L. D. Martínez, M. Tayahi, A. Grande-Pérez, and P. Gómez. 2019. Natural hosts and genetic diversity of the emerging tomato leaf curl New Delhi virus in Spain. *Frontiers in Microbiology* 10(140): 1–14.

Kadri, K., 2019. Polymerase Chain Reaction (PCR): Principle and Applications. <https://www.intechopen.com/books/synthetic-biology-new-interdisciplinary-science/polymerase-chain-reaction-pcr-principle-and-applications>. Diakses pada 3 Juni 2020.

Kehoe, M. A., B. A. Coutts, B. J. Burichell, and R. A. C. Jones. 2014. Split personality of a Potyvirus: To specialize or not to specialize? *PLoS ONE* 9(8): 1–7.

Kandito, A., S. Hartono, S. Sulandari, and S. Somowiyarjo. 2019. Molecular characterization of betasatellite associated with begomovirus on *Ageratum conyzoides* in Magelang, Central Java. *Jurnal Perlindungan Tanaman Indonesia* 23(2): 292–298.

Kenyon, L., S. Kumar, W. S. Tsai, and J. D. A. Hughes. 2014. Virus Diseases of Peppers (*Capsicum* spp.) and Their Control. In: *Advances in Virus Research*. 1st ed. Elsevier Academic Press, London.

Khan, J. A. and J. Dijkstra. 2002. Plant Viruses as Molecular Pathogens. Food Products Press, New York.

Kil, E. J., T. T. Bich Vo, C. Fadhila, P. Thi Ho, A. Lal, E. Troiano, G. Parrella, and S. Lee. 2020. Seed transmission of tomato leaf curl new delhi virus from zucchini squash in italy. *Plants* 9(5): 5–11.

King, A. M. Q., M. J. Adams, E. B. Carstens, and E. J. Lefkowitz. 2012. Virus Taxonomy Classification and Nomenclature of Viruses Ninth Report of the International Committee on Taxonomy of Viruses. Elsevier Academic Press, London

Kumar, S., G. Stecher, M. Li, C. Knyaz, and K. Tamura. 2018. MEGA X: Molecular evolutionary genetics analysis across computing platforms. *Molecular Biology and Evolution* 35(6): 1547–1549.



Laili, N. U. dan T. A. Damayanti 2019. Deteksi virus pada tanaman mentimun Di Jawa Barat. Agrovigor: Jurnal Agroekoteknologi, 12(1): 1–8.

Lakin, J. 2016. Cucumber. <https://www.wifss.ucdavis.edu/>. Diakses pada 27 April 2020.

Lecoq, H., and C. Desbiez. 2012. Viruses of cucurbit crops in the mediterranean region: an ever-changing picture. Advances in Virus Research 84: 67–126.

Lefevre, P. and E. Moriones. 2015. Recombination as a motor of host switches and virus emergence: Geminiviruses as case studies. Current Opinion in Virology 10: 14–19.

Leke, W. N., D. B. Mignouna, J. K. Brown, and A. Kvarnheden. 2015. Begomovirus disease complex: Emerging threat to vegetable production systems of West and Central Africa. Agriculture and Food Security 4(1): 1–14.

Lewandowski, D. J. 2008. Tobamovirus. In Encyclopedia of Virology. 3rded. Elsevier Academic Press, London, p: 68–72.

Li, R., Y. Zheng, Z. Fei, and K. S. Ling. 2015. First complete genome sequence of an emerging cucumber green mottle mosaic virus isolate in North America. Genome Announcements 3(3): 9–10.

Lima, A. T. M., R. R. Sobrinho, J. González-Aguilera, C. S. Rocha, S. J. C. Silva, C. A. D. Xavier, F. N. Silva, S. Duffy, and F. M. Zerbini. 2013. Synonymous site variation due to recombination explains higher genetic variability in begomovirus populations infecting non-cultivated hosts. Journal of General Virology 94: 418–431.

Lima, A. T. M., J. C. F. Silva, F. N. Silva, G. P. Castillo-Urquiza, F. F. Silva, Y. M. Seah, E. S. G. Mizubuti, S. Duffy, and F. M. Zerbini. 2017. The diversification of Begomovirus populations is predominantly driven by mutational dynamics. Virus Evolution 3(1): 1–14.

Listihani, S. H. Hidayat, S. Wiyono, and T. A. Damayanti. 2018. First report of Tobacco mosaic virus on cucumber [*Cucumis sativus* (L.)] in Java, Indonesia. IOP Conference Series: Earth and Environmental Science, 197(1).

Listihani, H. S. Hendrastuti, W. Suryo, and T. Asmira, D. 2019. Characteristic of tobacco mosaic virus isolated from cucumber and tobacco collected from East Java, Indonesia. Biodiversitas 20(10): 2937–2942.

Listihani, L., T. A. Damayanti, S. H. Hidayat, and S. Wiyono. 2020. First report of cucurbit aphid-borne yellows virus on cucumber in Java, Indonesia. Journal of General Plant Pathology 86(3): 219–223.



Liu, J.-Z., F. Li, and Y. Liu. 2017. Editorial: plant immunity against viruses. *Frontiers in Microbiology* 8(520): 1–3.

Lobin, K. K., J. Svoboda, A. Lebeda, D. Y. Dhookey, and S. P. Benimadhu. 2015. Cucumber mosaic virus causal pathogen of oily spots on cucumber cv. Locale fruits in mauritius – short communication. *Plant Protection Science* 51(3): 123–126.

López, C., M. Ferriol, and M. B. Picó. 2015. Mechanical transmission of Tomato leaf curl New Delhi virus to cucurbit germplasm: selection of tolerance sources in *Cucumis melo*. *Euphytica* 204(3): 679–691.

Lowenthal, W. 2019. Wild Cucumber: a Frequently Misidentified Native Vine. <https://extension.unh.edu/blog/wild-cucumber-frequently-misidentified-native-vine>. Diakses pada 27 April 2020.

Lozano, G., H. P. Trenado, E. Fiallo-Olivé, D. Chirinos, F. Geraud-Pouey, R. W. Briddon, and J. Navas-Castillo. 2016. Characterization of non-coding DNA satellites associated with sweepoviruses (Genus Begomovirus, Geminiviridae) - Definition of a distinct class of begomovirus-associated satellites. *Frontiers in Microbiology* 7(162): 1–13.

Mackay, I. M., K. E. Arden, and A. Nitsche. 2002. Real-time PCR in virology. *Nucleic Acids Research*, 30(6), 1292–1305.

Mahatma, L., M.K. Mahatma, J.R. Pandya, R.K. Solanki, and V.A. Solanki. 2016. Epidemiology of Begomoviruses: A Global Perspective. In: Plant Viruses: Evolution and Management. Springer Media, Singapura, p: 171-188.

Mardhiana, M., A. P. Pradana, M. Adiwena, K. Kartina, D. Santoso, R. Wijaya, and A. Maliki. 2017. Effects of pruning on growth and yield of cucumber (*Cucumis sativus*) Mercy variety in the acid soil of North Kalimantan, Indonesia. *Cell Biology and Development* 1(1): 13–17.

Marie-Jeanne, V., R. Ioos, J. Peyre, B. Alliot, and P. Signoret. 2000. Differentiation of poaceae potyviruses by reverse transcription-polymerase chain reaction and restriction analysis. *Journal of Phytopathology* 148(3): 141–151.

Massumi, H., A. Samei, A. H. Pour, M. Shaabanian, and H. Rahimian. 2007. Occurrence, distribution, and relative incidence of seven viruses infecting greenhouse-grown cucurbits in Iran. *Plant Disease* 91(2): 159–163.

Melgarejo, T. A., T. Kon, M. R. Rojas, L. Paz-Carrasco, F. M. Zerbini, and R. L. Gilbertson. 2013. Characterization of a new world monopartite begomovirus causing leaf curl disease of tomato in ecuador and peru reveals a new direction in geminivirus evolution. *Journal of Virology* 87(10): 5397–5413.



- Mizutani, T., B. S. Daryono, M. Ikegami, and K. T. Natsuaki. 2011. First report of Tomato leaf curl New Delhi virus infecting cucumber in Central Java, Indonesia. *Plant Disease* 95(11): 148haer5–1485.
- Moriones, E., S. Praveen, and S. Chakraborty. 2017. Tomato leaf curl new delhi virus: An emerging virus complex threatening vegetable and fiber crops. *Viruses*, 9(10): 1–18.
- Mukherjee, P. K., N. K. Nema, N. Maity, and B. K. Sarkar. 2013. Phytochemical and therapeutic potential of cucumber. *Fitoterapia* 84(1): 227–236.
- Narayanasamy, P. (2011). Microbial Plant Pathogens-Detection and Disease Diagnosis. Vol. 3. Springer, New York.
- Navas-Castillo, J., E. Fiallo-Olivé, and S. Sánchez-Campos. 2011. Emerging virus diseases transmitted by whiteflies. *Annual Review of Phytopathology* 49: 219–48.
- Nouri, S., R. Arevalo, B. W. Falk, and R. L. Groves. 2014. Genetic structure and molecular variability of Cucumber mosaic virus isolates in the United States. *PLoS ONE* 9(5): 1–12.
- Nováková, S., Z. Šubr, A. Kováč, I. Fialová, G. Beke, and M. Danchenko. 2020. Cucumber mosaic virus resistance: Comparative proteomics of contrasting *Cucumis sativus* cultivars after long-term infection. *Journal of Proteomics* 214: 1–14.
- Nyana, I. D. N., M. T. Lestariningsih, N. N. P. Adnyani, dan G. Suastika. 2016. Identifikasi Pepper vein yellows virus yang berasosiasi dengan Penyakit Yellow vein banding pada tanaman mentimun di Bali. *Jurnal Fitopatologi Indonesia* 12(4): 109–116.
- Olmos, A., N. Capote, E. Bertolini, and M. Cambra. 2007. Molecular Diagnostic Methods for Plant Viruses. In *Biotechnology and Plant Disease Management*. CABI, Wallingford.
- Orfanidou, C. G., I. Malandraki, D. Beris, O. Kektsidou, N. Vassilakos, C. Varveri, N. I. Katis, and V. I. Maliogka. 2019. First report of tomato leaf curl New Delhi virus in zucchini crops in Greece. *Journal of Plant Pathology* 101: 799.
- Ouedraogo, R. S., J. S. Pita, I. P. Somda, O. Traore, and M. J. Roossinck. 2019. Impact of cultivated hosts on the recombination of cucumber mosaic virus. *Journal of Virology* 93(7): 1–9.
- Ozaslan, M., T. Aytekin, B. Bas, I. H. Kilic, I.D. Afacan, and D. S. Dag. 2006. Virus disease of cucurbits in Gaziantep-Turkey. *Plant Pathology Journal* 5(1): 24–27.



- Padidam, R., R. N. Beachy, and C. M. Fauquet. 1995. Tomato leaf curl geminivirus from India has a bipartite genome and coat protein is not essential for infectivity. *Journal of General Virology* 76(1): 25–35.
- Pagán, I., P. González-Jara, A. Moreno-Letelier, M. Rodelo-Urrego, A. Fraile, D. Piñero, and F. García-Arenal. 2012. Effect of biodiversity changes in disease risk: Exploring disease emergence in a plant-virus system. *PLoS Pathogens* 8(7): 1–12.
- Palaniswami, M. S. 2020. *Bemisia tabaci* (Gennadius) as vector of plant viruses. In: *Applied Plant Virology*. Academic Press, Cambridge. p: 335–347.
- Palukaitis, P., M. J. Roossinck, R. G. Dietzgen, and R. I. B. Francki. 1992. Cucumber Mosaic Virus. *Advances in Virus Research*, 41, 614–619.
- Pandawani, N. P., F. Hanum, and N. N. Suryani. 2017. Resistance test of several varieties and critical phase for *cucumis sativus* towards Cucumber mosaic virus infectio. *International Research Journal of Engineering, IT & Scientific Research* 3(6): 68–76.
- Pandawani, N. P., C. Javandira, and F. Hanum. 2018. Exploration and collection of cucumber mosaic virus isolates of horticultural plants from Bali. *International Research Journal of Engineering, IT & Scientific Research* 4(6): 44–54.
- Perotto, M. C., E. A. Pozzi, M. G. Celli, C. E. Luciani, M. S. Mitidieri, and V. C. Conci. 2018. Identification and characterization of a new potyvirus infecting cucurbits. *Archives of Virology* 163(3): 719–724.
- Purba, R. E., S. M. Lestari, Y. Nurhaelena, dan S. H. Hidayat. 2017. Deteksi Squash mosaic virus pada lima varietas mentimun (*Cucumis sativus L.*). *Jurnal Hortikultura Indonesia* 8(2): 104–110.
- Puri, S., I. K. Tiwari, and R. K. Saraf. 2015. Role of polymerase chain reaction in plant pathology. *International Journal of Science and Nature* 6(1): 115–118.
- Rajbanshi, N. and A. Ali. 2019. Simultaneous detection of three common potyviruses infecting cucurbits by multiplex reverse transcription polymerase chain reaction assay. *Journal of Virological Methods*, 273(113725): 1–5.
- Reingold, V., O. Lachman, A. Koren, and A. Dombrovsky. 2013. First report of Cucumber green mottle mosaic virus (CGMMV) symptoms in watermelon used for the discrimination of non-marketable fruits in Israeli commercial fields. *New Disease Reports* 28: 11.
- Revill, P. A., C. V. Ha, S. C. Porchun, M. T. Vu, and J. L. Dale. 2003. The complete nucleotide sequence of two distinct geminiviruses infecting cucurbits in Vietnam. *Arch Virol* 148: 1523–1541.



- Romay, G., F. Geraud-Pouey, D. T. Chirinos, M. Mahillon, A. Gillis, J. Mahillon, and C. Bragard. 2019. Tomato twisted leaf virus: A novel indigenous new world monopartite begomovirus infecting tomato in venezuela. *Viruses* 11(4): 1–11.
- Roossinck, M. J. 2001. Cucumber mosaic virus, a model for RNA virus evolution. *Molecular Plant Pathology* 2(2): 59–63.
- Roossinck, M. J. 2002. Evolutionary history of cucumber mosaic virus deduced by phylogenetic analyses. *Journal of Virology* 76(7): 3382–3387.
- Roossinck, M.J. 2008. Plant Virus Evolution. Springer, Heidelberg.
- Rubatzky, V. E. and M. Yamaguchi. 1997. World Vegetables: Principles, Production, and Nutritive Values. 2nded. Springer, Dordrecht.
- Sacristán, S. and F. García-Arenal. 2008. The evolution of virulence and pathogenicity in plant pathogen populations. *Molecular Plant Pathology* 9(3): 369–384.
- Saitou, N. and M. Nei. 1987. The neighbor-joining method: a new method for reconstructing phylogenetic trees. *Molecular Biology and Evolution* 4(4): 406–425.
- Sastry, K. S. (2014). *Plant Virus and Viroid Diseases in the Tropics*. Springer, New York.
- Schaefer, H., C. Heibl, and S. S. Renner. 2009. Gourds afloat: A dated phylogeny reveals an Asian origin of the gourd family (Cucurbitaceae) and numerous oversea dispersal events. *Proceedings of the Royal Society B: Biological Sciences* 276(1658): 843–851.
- Schaffer, A.A. and H. S. Paris. 2003. Melons, Squashes, and Gourds. In: *Encyclopedia of Food Sciences and Nutrition*. Academic Press, London, p: 3817-3826.
- Scholthof, K. B. G., S. Adkins, H. Czosnek, P. Palukaitis, E. Jacquot, T. Hohn, B. Hohn, K. Saunders, T. Candresse, P. Ahlquist, C. Hemenway, and G. D. Foster. 2011. Top 10 plant viruses in molecular plant pathology. *Molecular Plant Pathology* 12(9): 938–954.
- Septariani, D. N., S. H. Hidayat, dan E. Nurhayati. 2014. Identifikasi penyebab penyakit daun keriting kuning pada tanaman mentimun. *J. HPT Tropika* 14(1): 80–86.
- Setiyobudi, R. H., A. S. Subiastuti, an B. S. Daryono. 2020. The effect of Begomovirus infection on phenotypic characters of *Cucumis melo* L. ‘Melona.’ The 6th International Conference on Biological Science Icbs 2019: Biodiversity as a Cornerstone for Embracing Future Humanity.



Shah, M. M. R. and T. X. Liu. 2013. Feeding Experience of *Bemisia tabaci* (Hemiptera: Aleyrodidae) Affects Their Performance on Different Host Plants. PLoS ONE 8(10): 1–11.

Snehi, S. K., A. S. Purvia, S. S. Parihar, G. Gupta, V. Singh, and S. K. Raj. 2017. Overview of Begomovirus Genomic Organization and Its Impact. International Journal of Current Research 9(11): 61368–61380.

Souza, T. A., J. M. F. Silva, T. Nagata, T. P. Martins, E. Y. T. Nakasu, and A. K. Inoue-Nagata. 2020. A temporal diversity analysis of Brazilian begomoviruses in tomato reveals a decrease in species richness between 2003 and 2016. Frontiers in Plant Science 11: 1–13.

Subiastuti, A. S., S. Hartono, and B. S. Daryono. 2019. Detection and identification of begomovirus infecting cucurbitaceae and Solanaceae in Yogyakarta, Indonesia. Biodiversitas 20(3): 738–744.

Supyani, A. C. Silvana, R. Fathur, N. S. Dwiyati, and W. Sri. 2017. Occurrence and distribution of Cucumber mosaic virus in cucurbits in Karanganyar, Central Java, Indonesia. African Journal of Agricultural Research 12(18): 1593–1601.

Syller, J., & Grupa, A. (2016). Antagonistic within-host interactions between plant viruses: Molecular basis and impact on viral and host fitness. Molecular Plant Pathology 17(5): 769–782.

Tesoriero, L. A., G. Chambers, M. Srivastava, S. Smith, B. Conde, and L. T. T. Tran-Nguyen. 2016. First report of cucumber green mottle mosaic virus in Australia. Australasian Plant Disease Notes 11(1): 1–3.

Tian, T., K. Posis, T. L. Pitman, and B. W. Falk. 2016. First report of Cucumber green mottle mosaic virus on melon in the United States. Australasian Plant Disease Notes, 11. (Abstr.)

Tiwari, A. K., P. K. Sharma, M. S. Khan, S. K. Snehi, S. K. Raj, and G. P. Rao. 2010. Molecular detection and identification of Tomato leaf curl New Delhi virus isolate causing yellow mosaic disease in bitter gourd (*Momordica charantia*), a medicinally important plant in India. Medicinal Plants - International Journal of Phytomedicines and Related Industries 2(2): 117–123.

Tsai, W. S., S. L. Shih, S. G. Venkatesan, M. U. Aquino, S. K. Green, L. Kenyon, and F. J. Jan. 2011. Distribution and genetic diversity of begomoviruses infecting tomato and pepper plants in the Philippines. Annals of Applied Biology 158(3): 275–287.

Venkataramappa, V., C. N. Lakshminarayana Reddy, S. Saha, and M. Krishna Reddy. 2018. Recombinant Tomato leaf curl New Delhi virus is associated with yellow vein mosaic disease of okra in India. Physiological and Molecular Plant Pathology 104: 108–118.



Wijaya. C.H. dan I. Epriliati. 2018. Dialy Vegetables in Indonesia. Penerbit PT Gramedia Pustaka Utama, Jakarta.

Wilisiani, F., T. Mashiko, W. Q. Wang, T. Suzuki, S. Hartono, Y. Neriya, H. Nishigawa, and T. Natsuaki. 2019. New recombinant of Tomato leaf curl New Delhi virus infecting melon in Indonesia. *Journal of General Plant Pathology* 85(4): 306–310.

Wiratama, I. D. M. P., G. N. A. S. Wirya, I. D. N. Nyana, N. N. P. Adnyani, dan G. Suastika. 2015. Laporan Pertama Infeksi Begomovirus pada Tanaman Mentimun di Bali. *Jurnal Fitopatologi Indonesia* 11(5): 175–178.

Wylie, S. J., M. Adams, C. Chalam, J. Kreuze, J. J. López-Moya, K. Ohshima, S. Praveen, F. Rabenstein, D. Stenger, A. Wang, and F. M. Zerbini. 2017. ICTV virus taxonomy profile: Potyviridae. *Journal of General Virology* 98(3): 352–354.

Wylie, S., C. R. Wilson, R. A. C. Jones, and M. G. K. Jones. 1993. A polymerase chain reaction assay for cucumber mosaic virus in lupin seeds. *Australian Journal of Agricultural Research* 44(1): 41–51.

Zaidi, S. S. E. A., D. P. Martin, I. Amin, M. Farooq, and S. Mansoor. 2017. Tomato leaf curl New Delhi virus: a widespread bipartite begomovirus in the territory of monopartite begomoviruses. *Molecular Plant Pathology* 18(7): 901–911.

Zerbini, F. M., R. W. Briddon, A. Idris, D. P. Martin, E. Moriones, J. Navas-Castillo, R. Rivera-Bustamante, P. Roumagnac, and A. Varsani. 2017. ICTV virus taxonomy profile: Geminiviridae. *Journal of General Virology* 98(2): 131–133.

Zherdev, A. V., S. V. Vinogradova, N. A. Byzova, E. V. Porotikova, A. M. Kamionskaya, and B. B. Dzantiev. 2018. Methods for the diagnosis of grapevine viral infections: A review. *Agriculture* 8(12): 1–19.

Zhou, X., Y. Liu, L. Calvert, C. Munoz, G. W. Otim-Nape, D. J. Robinson, and B. D. Harrison. 1997. Evidence that DNA-A of a geminivirus associated with severe cassava mosaic disease in Uganda has arisen by interspecific recombination. *Journal of General Virology* 78(8): 2101–2111.

Zhou, X. 2013. Advances in understanding begomovirus satellites. *Annual Review of Phytopathology* 51: 357–381.