

DAFTAR PUSTAKA

- Adams, S.R., S. Pearson & P. Hadley. 1998. The effect of temperature on inflorescence initiation and subsequent development in chrysanthemum cv. Snowdown (*Chrysanthemum x morifolium* Ramat). Sci. Hort. 77:59-72.
- Adhikary, S.P. 2017. Analysis of various floral components at different developmental stages of the flower. Int.J.Curr.Microbiol. App.Sci. 6(7): 2053-2068.
- Ahemd, H.A., A. A. Al-Faraj & A.M. Abdel-Ghany. 2016. Shading greenhouse to improve the microclimate, energy, and water saving in hot region : a review. Sci.Hort. 201: 36-45.
- Aliniaiefard, S & U.van Meeteren. 2016. Stomatal characteristics and desiccation response of leaves of cut chrysanthemum (*Chrysanthemum morifolium*) flowers grown at high air humidity. Sci.Hort. 205: 84-89.
- Arnon, D.J. 1949. Copper enzyme in isolated chloroplast. Plant. Physiol.24:1-15.
- Badan Pusat Statistik Indonesia. 2018. Statistik Tanaman Hias Indonesia.91p.
- Badan Standarisasi Nasional. 1998. Standar Nasional Indonesia Bunga Potong Krisan.
- Balai Penelitian Tanaman Hias. 2016a. Produksi dan pengelolaan benih sumber tanaman hias pada Unit Pengelola Benih Sumber (UPBS Balithi). Laporan Akhir. Badan Litbang Pertanian. Kementerian Pertanian. 36p.
- Balai Penelitian Tanaman Hias. 2016b. Komoditas Prioritas Krisan. Diakses dari<<http://balithi.litbang.pertanian.go.id.>>(diakses 17 Januari 2017).
- Balai Pengkajian Teknologi Pertanian Yogyakarta. 2014. Standar Operasional Prosedur (SOP) Produksi Bunga Potong Krisan (*Dendrathera grandiflora* Tzvelev Syn.) Kabupaten Kulonprogo. Badan Litbang Pertanian Kementerian Pertanian. 74p.
- Barendse, G.W.M. 1987. High performance liquid chromatography of gibberelins. In High Performance Liquid Chromatography in Plant Sciences. Linskens, H.F. and Jackson, I.F. (eds). Mod. Meth. Anal., New Series, Vol. 5. Springer –Verlag, Berlin, Heidelberg, New York., 1-22.
- Bailey, L.F., J.F. Rotacher & W.H. Cummings. 1952. A critical study of the cobalt chloride method of measuring transpiration. Plant. Physiol. 563-574.
- Borthwick, H.A. & H.M. Cathey. 1962. Role phytochrome control of flowering of chrysanthemum. Bot. Gaz. 23 (3):155-162.

- Brown, P.H. 192 Morphological and physiological aspect of flower initiation and development in *Tanacetum cinerariaefolium* L. Dissertation. University of Tasmania. Hobart.
- Carvalho, S.M.P., E. Heuvelink, R. Cascais & O.V. Kooten. 2002. Effect of day and night temperature on internode and stem length in chrysanthemum : is everything explained by DIF? *Ann. Bot.* 90(1): 111-118.
- Carvalho, S.M.P. 2003. Effects of Growth Conditions on External Quality of Cut Chrysanthemum..Dissertation. Wageningen University. Netherland.
- Carvalho, S.M.P. & E. Heuvelink. 2003. Effect of assimilate availability on flower characteristic and plant height of cut chrysanthemum : an intergrated study. *J. Hortic. Sci. Biotechnol.* 78 (5): 711-720.
- Carvalho, S.M.P., H. Abi-Tarabay & E. Heuvelink. 2005. Temperature affects chrysanthemum flower characteristic differently during three phases of cultivation period. *J. Hortic. Sci. Biotechnol.* 80(2): 209-216.
- Carvalho, S.M.P., Ep. Heuvelink., J. Harbinson & Olaf van Kooten. 2006. Role of sink-source relationships in chrysanthemum flower and total biomass production. *Physiol. Plant.* 128:263-273.
- Casson, S & J.E.Gray. 2008. Influence of environmental factors on stomatal development. *Tansley review. New Phytol.* 178:9-23.
- Chakrabarty, D., Chatterjee, & S.K. Datta. 2007. Oxidative stress and antioxidant activity as the basis of senescence in chrysanthemum florets. *J. Plant. Growth. Regul.* 5: 107-115.
- Changping, C. Haixia & C.Jian 2012. Effects of exogenous gibberellins on pigmentation in *Gerbera hybrida* ray florets. *Chinese. Agric. Sci. Bull.* 28(22):212-215.
- Chen, Huang-Guo. 2006. Effect GA₃ on the flowering and some physiological indexes of chrysanthemum. *J. Anhui. Agri. Sci.* 34 (6): 1050-1051.
- Chen, S-M., C-H.Li, X-R. Zhu, Y-M.Deng, W. Sun, L-S. Wang, F-D. Chen & Z. Zhang. 2012. The identification of flavonoids and the expression of genes of anthocyanin biosynthesis in the chrysanthemum flowers. *Biol. Plantarum.* 56 (3):458-464.
- Community Plant Variety Office (CPVO). 2008. Protocol for distinctness, uniformity, and stability test. *Chrysanthemum morifolium* Ramat.
<http://www.cpvo.fr/documents/TP/ornementales/TP_026- Chrysanthemum.pdf> (diakses1 Desember 2016).
- Craig, D.S. & E.S. Runkle. 2013. A moderate to high red to far red light ratio from light-emitting diode controls flowering of short day plants. *J.Amer. Soc. Hort. Sci.* 138 (3):167-172.

- Da Silva, J.A.T. 2006. Ornamental cut flowers: physiology in practice. Floriculture, Ornamental and Plant Biotechnology. (1) :124-140.
- Dianti, E.W., M. Lutfi & R. Yulianingsih. 2014. Perancangan dan implementasi *Standar Operating Procedure* (SOP) pascapanen pada budidaya tanaman krisan (*Dendrathera grandiflora*) di perkebunan Nongkojajar-Pasuruan. J. Keteknik Pertanian Tropis dan Biosistem. 3(1):44-52.
- Dierck, R., E. Dhooghe, J. Van Huylenbroeck, D. Van Der Straeten & E. De Keyser. 2017. Light quality regulates plant architecture in different genotypes of *Chrysanthemum morifolium* Ramat. Sci. Hort. 218:177-186.
- Dierck, R., L. Leus, E. Dhooghe, J. Van Huylenbroeck, J. De Riek, D. Van Der Straeten, & E. De Keyser. 2018. Branching gene expression during chrysanthemum axillary bud outgrowth regulated by strigolactone and auxin transport. Plant Growth Regul. DOI.org/10.1007/s10725-018-0408-2.
- Direktorat Budidaya Tanaman Hias. 2012. Standar operasional prosedur budidaya krisan potong. Direktorat Jenderal Hortikultura. Kementerian Pertanian. 84p.
- Direktorat Budidaya dan Pascapanen Florikultura. 2013. Profil Krisan. Direktorat Jenderal Hortikultura. Kementerian Pertanian. 153p.
- Dela, G., E. Or., R. Ovadia, A. Nissim-Levi, D. Weiss & M. Oren-Shamir. 2003. Changes in anthocyanin concentration and composition in 'Jaguar' rose flowers due to transient high-temperature conditions. Plant.Sci. 164:333-340.
- Djazuli, M. 2019. Pengaruh pupuk P dan moriza terhadap produksi dan mutu simplisia purwoceng. Bul. Littro. 22(2):147-156.
- Durbak, A., H. Yao & P. Mc.Steen. 2012. Hormon signaling in plant development. Curr. Opin. Plant. Biol. 15:92-96.
- Fanourakis, D.N. 2014. Analysis of genetic variation in cut chrysanthemum response to high carbon dioxide concentration (closed greenhouse): underlying physiological and morphological parameters. Thesis. Wageningen University. Netherlands.
- Fei, J., S. Tan, F. Zhang, LA. Hua, Y. Liao, W. Fang, F. Chaen & N. Teng. 2016. Morphological and physiological differences between dehiscent and indehiscent anthers of *Chrysanthemum morifolium*. J. Plant. Res. DOI 10.1007/s10265-016-0854-8
- Feller, U. 2006. Stomatal opening at elevated temperature: an underestimate regulatory mechanism?. Gen. Appl. Plant. Physiology, Special Issue. 19-31.
- Garner, W.W. 1933. Comparative respon of long-day and short day plants to relative length of day and night. Plant. Physiol. 8 (3): 347-356.

- Gaspersz, V. 1991. Teknik Analisis Dalam Penelitian Percobaan. Tarsito. Bandung. 623p.
- Gomez, K.A. & A.A. Gomez. 1995. Prosedur Statistik untuk Penelitian Pertanian Edisi Kedua. UI Press. 698 p.
- Gonzales-Real, M.M. & A. Baillie. 2006. Plant response to greenhouse cooling. Acta Hort. 719.
- Green III, F., C.A. Clausen & T.L. Highley. 1989. Adaptation of the Nelson-Somogyi reducing-sugar assay to a microassay using microtiter plates. Anal. Biochem. 182:197-199.
- Han, S., S.M. Chen., A.P. Song, R.X. Liu, H.Y. Li, J.F. Jiang & F.D. Chen. 2016. Photosynthetic responses of *Chrysanthemum morifolium* to growth irradiance: morphology, anatomy, and chloroplast ultrastructure. Photosynthetica. 55(1): 184-192.
- Harborne ,1967. Comparative Biochemistry of the Flavonoids. Academic Press. London.
- Hassanien, R.H.E., Li, Ming & W.D. Lin. 2016. Advances application of solar energy in agricultural. Renew. Sus. Energ. Rev. 54: 989-1001.
- Hayati, N.Q., Nurmalinda, B. Marwoto. 2018. Inovasi teknologi tanaman krisan yang dibutuhkan pelaku usaha. J. Hort. 28(1): 147-162.
- Higuchi, Y., T. Narumi, A. Oda, Y. Nakano, K. Sumitomo, S. Fukai & T. Hisamatsu. 2013. The gated induction system of a systemic floral inhibitor, antiflorigen, determines obligates short-day flowering in chrysanthemums. PNAS. 110 (42): 17137-17142.
- Holm, G. 1954. Chlorophyll mutations in barley. Acta Agric. Scand. 4:457.
- Hong, Y.,X. Tang, H. Huang, Y. Zhang & S. Dai. 2015. Transcriptomic analyses reveal species-specific light-induced anthocyanin biosynthesis in chrysanthemum. BMC Genomics. 16(202):1-18.
- Hong, Y. Li-wen Yang, Meng-ling, S-lan Dai. 2016. Comparative analyses of light induced anthocyanin accumulation and gene expression between the ray florets and leaves in chrysanthemum. Plant. Physiol. Biochem. 103:120-132.
- Horibe, T., M. Ito & K. Yamada. 2010. Effect of plant hormones on invertase activity and on petal growth of cut rose. Acta Hort, ISHS. 870.
- Huh, E.J., H.K. Shin, S.Y. Choi, O.G. Kwon & Y.R. Lee. 2008. Thermosusceptible developmental stage in anthocyanin accumulation and color response to high temperature in red chrysanthemum cultivars. Kor. J. Hort. Sci. Technol. 26(4): 357-361.

- Huld, A & N.E. Anderson. 1997. The influence of plant density and gradual shading on vegetative growth of *Dendrathera*. Acta. Hort.435.ISHS. 1997
- Iqbal, N., R. Nazar, M.I.R. Khan, A. Masood & N.A. Khan. 2011. Role of gibberellins in regulation of source-sink relations under optimal and limiting environmental conditions. Curr. Sci. 100:(7).
- Janka, E., O. Korner, E. Rosenqvist & C. Ottosen. 2013. High temperature stress monitoring and detection using chlorophyll a fluorescence and infrared thermography in chrysanthemum (*Dendrathera grandiflora*). Plant Physiol Biochem. 67: 87-94.
- Janka, E., O. Korner, E. Rosenqvist & C. Ottosen. 2015. Using the quantum yields of photosystem II and the rate of net photosynthesis to monitor high radiance and temperature stress in chrysanthemum (*Dendrathera grandiflora*). Plant Physiol Biochem. 90: 14-22.
- Jeffcoat, B. & K.E. Cockshull. 1972. Changes levels of endogenous growth regulators during development of the flowers of *Chrysanthemum morifolium*. J. Exp. Bot. 23(76): 722-732.
- Jiang, B.B., S.M. Chen, H.B. Miao, S.M. Zhang, F.D. Chen & W.M. Fang. 2010a. Changes of endogenous hormone levels during short day inductive floral initiation and inflorescence differentiation of *Chrysanthemum morifolium* 'Jingyun'. IJPP.4(2): 149-157.
- Jiang, B., H. Miao., S. Chen., S. Zhang, F. Chen, & W. Fang. 2010b. The *Lateral Suppressor*- Like Gene, DgLsL, alternated the axillary branching in transgenic chrysanthemum (*Chrysanthemum x morifolium*) bu modulating IAA and GA content. Plant Mol Biol Rep. 28:144-151.
- Jiang , B., S. Chen., J. Jiang, S. Zhang, F. Chen, & W. Fang. 2012. Changes of endogenous hormones in lateral buds of chrysanthemum during their outgrowth. Russ. J. Plant. Physl. 89 (3): 356-363.
- Karlsson, M.G., R.D. Heins, J.E. Erwin & R.D. Berghage. 1989. Development rate during four phases of chrysanthemum growth as determined by preceding and prevailing temperatures. J. Amer. Soc.Hort. Sci. 114(2):234-240.
- Katsoulas, N., D. Savvas, I. Tsirogiannis, O. Merkouris & C. Kittas. 2009. Response of an eggplant crop grown under Mediterranean summer condition to greenhouse fog cooling. Sci.Hort. 123:90-98.
- Kim, H., K. Min-Kyung & H. Yuon-Yul. 2004. Effect of shading on growth and cut flower quality of spray chrysanthemum 'Relance'. Kor. J. Hort. Sci. Technol. 22(3): 346-350.
- Kim, S.H., Ye-S. Kim, Y.D. Jo, Si-Y. Kang, Joon-W. Ahn, Byoung-C. Kang, & Jin-B. Kim. 2019. Sucrose and methyl jasmonate modulate the expression of anthocyanin

biosynthesis genes and increase the frequency of flower color mutans in chrysanthemum. *Sci Hort.* 256:108602.

Kittas, C., N. Katsoulas & T. Bartzanas. 2012. Greenhouse climate control in Mediterranean greenhouses. *Cuadernos De Estudios Agroalimentarios*.89-114.

Kofranek, A.M. 1992. Cut chrysanthemum. In:Larson, R.A. (Eds.). *Introduction to Floriculture Second Edition Academic Press, Inc. California*.5-40.

Kozłowska, A., W. Bres, W. Krzesinski & T.Trelka. 2011. The effect of amount of light and the temperature biomorphological characteristics of chrysanthemums during all-year culture. *Acta.Sci. Pol. Hortorum. Cultus.* 10(3) :235-246.

Law , D.M. 1987. Gibberellin-enhanced indole-3-acetic acid biosynthesis: D-tryptophan as the precursor of indole3-acetic acid. *Physiol. Plant.*70:626–632.

Lemoine, R., S.L. Camera, R. Atanassova, F. Dedaldechamp, T. Allario, N. Pourtau, J.L. Bonnemain, M. Laloi, P. C. Thevenot, L. Maurousset, M. Faucher, C. Girousse, P. Lemonnier, J. Parrilla & M. Durand. 2013. Source –to-sink transport of sugar and regulation by environmental factors. *FPLS.* 4 (272):1-21.

Li, L. & H. Yuan. 2013. Chromoplas biogenesis and carotenoid accumulation. *Arch. of Biochem. Biophysics*.539:102-109.

Li, L., W. Zhang, L. Zhang, N. Li, J. Peng, Y. Wang, C. Zhong, Y. Yang, S. Sun , S. Liang & X. Wang. 2015. Transcriptomic insights into antagonistic effects of gibberellin and abscisic acid on petal growth in *Gerbera hybrida*.*FPLS.* 6:168.

Li, Z., W.M. Palmer, A.P Martin, R. Wang, F. Rainsford, Y. Jin, J.W. Patrick, Y. Yang & Y.L. Ruan. 2012. High invertase activity in tomato reproductive organs correlates with enhanced sucrose import into, and heat tolerance of, young fruit.*J. Exp. Bot.* 63(3):1155-1166.

Lim, J.H., H-W. Choi, S.T.T.Ha & B-C.In. 2017. Greenhouse dehumidification extends postharvest longevity of cur roses in winter season. *Hort. Sci. Tech.* 35(6):737-746.

Machin, B. & N. Scopes. 1978. *Chrysanthemums Year-Round Growing*. Blandford Press. 233p.

Marcelis, L.F.M. 1996. Sink strength is a determinant of dry matter partitioning in the whole plant. *J. Exp. Bot.* 47:1281-1291.

Martin, C. & T. Gerats. 1993. Control of pigment biosynthesis gene during petal development. *Plant Cell*.5(10):1253-1264.

Martini, T. 2014. Kajian Pengendalian Penyakit Karat (*Puccinia horiana*) pada Tanaman Krisan Berdasarkan Prinsip Epidemi. Disertasi. Universitas Gadjah Mada Yogyakarta.

- Mathur, S., D. Agrawal & A. Jajoo. 2014. Photosynthesis; Respon to high temperature stress. J. Photochem. Photobiol. 137: 116-126.
- Moreno, J.C., A. Cerda, K. Simpson, I. Lopez- Diz, E.Carrera, M. Handford & C. Stange. 2016. Increased *Nicotiana tabacum* fitness through positive regulation of carotenoid, gibberellin and chlorophyll pathways promoted by *Daucus carota* lycopene β -cylase (Dclcyb1) expression. J. Exp. Bot. 67 (8): 2325-2338.
- Mori, Y., S. Kono & T. Goto. 2013. Effects of gibberellic acid application after flower budding on the flowering and cut flower quality of summer-to-autumn flowering small-flowered spray type chrysanthemum harvested in August. Hort. Res. Japan. 12 (1):103-108.
- Morris , D.A. & E..D. Arthur. 1986. Stimulatuon of acid invertase activity by indol-3yl-acetic acid in tissues undergoing cell expansion. Plant. Growth. Regul. 4:259-271.
- Nakano, Y., Y. Higuchi, K. Sumitomo & T. Hisamatsu. 2013. Flowering retardation by high temperature in chrysanthemum: involvement of FLOWERING LOCUS T-LIKE 3 gene repression. J. Exp. Bot. 64 (4): 909-920.
- Nasihin, Y & L. Qodriyah. 2008. Teknik perlakuan periode hari panjang dan pemberian GA3 terhadap produksi bunga potong krisan. BTP.13(2).
- National Chrysanthemum Society. 2014. History of The Chrysanthemum (internet) <[http:// www.mums.org](http://www.mums.org) .> (diakses 1 Februari 2016).
- National Horticulture Board. 2019. Chrysanthemum Standard Export (internet) <[http:// www.nhb.gov.in](http://www.nhb.gov.in)>(diakses 1 Februari 2016).
- Nielsen, D.C., K.L. Clawson & B.L. Blad. 1984. Effect of solar azimuth and infrared thermometer view direction and measured soybean canopy temperature. Agron J. 76:607-610.
- Norikoshi, R., T. Shibata, T. Niki & K. Ichimura. 2016. Sucrosa treatment enlarges petal cell size and increases vacuola sugar concentrations in cut rose flower. Postharvest. Biol. Technol. 116: 59-65.
- Nozaki, K., T. Takejiro. & S. Fukai. 2006. Effects of high temperatures on flower colour and anthocyanin content in pink flower genotype of greenhouse chrysanthemum (*Chrysanthemum morifolium* Ramat.). J.Hortic. Sci.Biotechnol. 81(4): 728-734.
- Nozaki, K. & S. Fukai. 2008. Effects of high temperature on floral development and flowering in spray chrysanthemum. JAH. 10(1): 8-14.
- Nurmalinda & N.Q. Hayati. 2014. Preferensi konsumen terhadap krisan bunga potong dan pot. J. Hort. 24 (4):363-372.

- Oren-Shamir, M. 2009. Does anthocyanin degradation play a significant role in determining pigment concentration in plant? *Plant. Sci.* 177:310-316.
- Permana, I.M.R., I.K.Suamba & P.U. Wijayanti. 2013. Bauran pemasaran bunga krisan pada kelompok usaha bersama Manik Mekar Nadi di Desa Besakih, Kecamatan Rendang, Kabupaten Karangasem. *E-Jurnal Agribisnis dan Agrowista.* 2(1): 12-22.
- Plaut, Z., N. Zieslin, M. Grawa & M. Gazit. 1974. The response of rose plants to evaporate cooling: flower production and quality. *Sci. Hort.* 11: 183-190.
- Post, K. & D.B. Lacey. 1953. High Temperature Produces Long Day Effects on *Chrysanthemum*. Departement of Floriculture, Cornell University.
- Priambodo, W.A., A. Yunus & D. Harjoko. 2014. The effect of interval nutrition application and addition gibberellins for growth and flowering of chrysanthemum. *J. Agrotech. Res.* 3(2):1-6.
- Qi, S., L. Yang, X. Won, Y. Hong, X. Song, M. Zhang & A. Dai. 2016. Reference gene selection for RT-qPCR analysis of flower development in *Chrysanthemum morifolium* and *Chrysanthemum lavandulifolium*. *FPLS.* 7:(287):1-12.
- Rahmawati, I. 2019. Pengaruh macam media tanam dan frekuensi penyiraman terhadap pertumbuhan dan hasil bunga krisan pot (*Chrysanthemum morifolium* Ramat.) varietas Avanthé Agrihorti di dataran medium. Thesis. Universitas Gadjah Mada Yogyakarta.
- Rahmawati, I., E. Sulistyaningsih & A. Purwantoro. 2019. The growth and flowering of potted chrysanthemum (*Chrysanthemum morifolium* Ramat) on types of organic media and watering frequent. *Agric Sci.* 4(2): 59-64.
- Rayle, D.L. & R.E. Cleland. 1992. The acid growth theory of auxin-induced cell elongation is alive and well. *Plant Physiol.* 99:1271-1274.
- Romero-Aranda, R., T. Soria & J. Cuartero. 2002. Greenhouse mist improves yield of tomato plants grown under saline conditions. *J. Amer. Soc. Hort. Sci.* 127(4):644-648.
- Ruiz-Sola, M. Aguila & M. Rodriguez-Concepcion. 2012. Carotenoid biosynthesis in *Arabidopsis*: A colorful pathway. *ASPB.* doi.org/10.1199/tab.0158.
- Salisbury, FB & C.W. Ross. Fisiologi Tumbuhan Jilid 1. Terjemahan (D.R. Lukman & Sumaryono). Penerbit ITB. Bandung. 241p.
- Sanjaya. L., B. Marwoto, K. Budiarto & E. Fibrianti. 2018. The evaluation of chrysanthemum clones under low elevation. *AGRIVITA.* 40 (2):193-201.

- Saradhi, P.R. & H.Y.M Ram. 1987. Correlated changes in carbohydrate levels and associated enzyme activities during development and senescence of ray floret in chrysanthemum. Proc. Indian. Acad. Sci. 97(5): 377-384.
- Savvides, A., D. Fanourakis & W. Van Leperen. 2012. Co-ordination of hydraulic and stomatal conductances across light quantities in cucumber leaves. J. Exp. Bot. 63(3): 1135-1143.
- Sethi, V.P & S. K. Sharma. 2007. Survey of cooling technologies for worldwide agricultural greenhouse application. Sol. Energ. 81:1447-1459.
- Setyono, B. 2016. Prospek pengembangan agribisnis bunga potong krisan di Kecamatan Samigaluh Kulonprogo. Agros. 18(2): 201-208.
- Shimazaki, K.I., M. Dio, S.M. Assmann & T. Kinoshita. 2007. Light regulations of stomatal movement. Annu Rev Plant Biol. 58:219-247.
- Sladky, Z. 1986. The role of growyh regulators in differentiation of flowers and inflorescences. Biol. Plant. 28 (1): 31-37.
- Sood, S., D. Vyas & P.K. Nagar. 2006. Physiological and biochemical studies during flower development in two rose spesies. Sci.Hort. 108(2006):390-396.
- Sopandi, D. 2013. Fisiologi Adaptasi Tanaman terhadap Cekaman Abiotik pada Agroekosistem Tropika. IPB Press. 244p.
- Stewart, R. N. & H. Dermen.1970. Somatic genetic analysis of the apical layers of chimeral sports in chrysanthemum by experimental production of adventitious shoots. Am.J.Bot. 57 (9): 1061-1071
- Stickland, R. G. 1974. Pigment production by cultured florets of *Chrysanthemum morifolium*. Ann. Bot. 38:1.
- Stutte, G.W. 2009. Light-emitting Diodes for manipulating the phytochrome apparatus. HortSciences. 44 (2):231-234.
- Su, W-R., W.S. Chen, K. Masaji, L.N. Mander, L.S. Hung, W.H. Chen.Y.M.Fu & K.L. Huang. 2001. Changes in gibberellins levels in the flowering shoot of *Phalaenopsis* hybrid under high temperature conditions when flower under high temperature conditions when flower development is blocked. Plant Physiol. Biochem. 39:45-50.
- Sumitomo, K., K. Narumi, S. Satoh & T. Hisamatsu. 2008. Involvement of the ethylene response pathway in dormancy induction chrysanthemum. J. Exp. Bot. 59 (15): 4075-4082.
- Sumitomo, K., A. Yamagata, A. Oda & T. Hisamatsu. 2012. Identification of high long day leaf number cultivars and prevention of premature budding by cold treatment

for fine control of flowering in summer-to-autumn flowering chrysanthemum (*Chrysanthemum morifolium* Ramat.). J. Hortic. Sci. Biotechnol. 89 (6): 647-654.

- Sutapraja, H. 2008. Pertumbuhan dan hasil tanaman tomat kultivar Intan dan Mutiara pada berbagai jenis tanah. J.Hort. 18 (2): 160-164.
- Sutejo, M. 2016. Pengaruh Jenis Pupuk dan Varietas terhadap Pertumbuhan dan Hasil Bunga Potong Krisan (*Dendranthema grandiflorum*). Universitas Sebelas Maret. Skripsi. Surakarta.
- Szalai. 1969. Relation between the chlorophyll content and paleness of gibberellic acid treated leaves. Physio. Plant. 22 : 587-593.
- Taiz, L. & E. Zeiger. 1998. Plant Physiology. Second Edition. Sunderland, Massachusetts. Sinauer Associates, Inc., Publisher. 790p.
- Tedjasarwana, R., E.D.S. Nugroho, & Y. Hilman. 2011. Cara aplikasi dan takaran pupuk terhadap pertumbuhan dan produksi krisan. J. Hort. 21(4):306-314.
- Thimijan, R. W. 1983. Photometric, radiometric, and quantum light units of measure: A review of procedures for interconversion. HortSciences. 18(6).
- Van der Hoeven, A.P. 1987. Chrysanthemum production in Netherlands. ActaHortic. 197.
- Van der Ploeg, A. & E. Heuvelink. 2006. The influence of temperature on growth and development cultivars : a review. J. Hortic. Sci. Biotechnol. 81 (2): 174-182.
- Viyachaia, T.L., T.L. Abdullaha, S.A. Hassana, N. Hirawaty, Kamarulzaman & W.A.W. Yusofc. 2015. Development of cut chrysanthemum produvion in two soilless system. Agric.Sci. Procedia. 5:115-121.
- Vu, J.C.V., R.W. Gesh, A.H. Pennanen, L.H.J. Allen, K.J. Boote, G. Bowes. 2001. Soybean photosynthesis, Rubisco and carbohydrate enzymes function at supra –optimal temperatures elevated CO₂. J.Plant. Physiol. 158 :295-307.
- Wahid, A., S. Gelani, M.A. Ashraf & M.R. Foolad. 2007. Heat tolerance in plants : An overview. Environ. Exp. Bot. 61: 199-223.
- Wang, L-S., A. Shiraishi, F. Hashimoto, N. Aoki, K. Shimizu & Y. Sakata. 2001. Analysis of petal anthocyanins to investigate flower coloration of Zhongyuan (Chinese) and Daikon (Japanese) tree peony cultivars. J. Plant. Res. 114: 33-34.
- Wang, J., H. Wang, L.Ding, A. Song, F. Shen, J. Jiang, S. Chen & F. Chen. 2017. Transcriptomic and hormones analyses reveal mechanisms underlying petal elongation in *Chrysanthemum morifolium* ‘Jinba’. Plant.Mol. Biol. 93: 593-606.
- Wasito, A & B. Marwoto. 2003. Evaluasi daya hasil dan adaptasi klon-klon harapan krisan. J. Hort. 13(3):1-6.

- Weiss, D. 2000. Regulation of flower pigmentation and growth :multiple signaling pathways control anthocyanin synthesis in expanding petals. *Physiol. Plant.* 110:152-157.
- Weiss, D. & N. Ori. 2007. Mechanisms of cross talk between gibberellin and other hormones. *Plant. Physiol.* 144: 1240-1246.
- Weraduwege, S.M., J.Chen., F.C. Anozie, A. Morales, S.E. Weise & T.D. Sharkey. 2015.The relationship between leaf area growth and biomass accumulation in *Arabidopsis thaliana*. *Front. Plant.Sci.* 6(67):1-21.
- Weston, E.L & K.A.Pyke. 1999. Development ultrastructure of cells and plastids in the petals of wallflower (*Erysimum cheiri*). *Ann Bot.*84: 763-769.
- Whealy, C.N. 1989. High temperature effects on floral development and vegetative growth of *Chrysanthemum x morifolium* and the involvement of plant growth substances. Dissertation.University Florida.
- Wijayani, A. & Amiaji. 2014. Perbaikan teknik budidaya bunga krisan pasca erupsi merapi di Harjobinangun, Pakem, Sleman untuk peningkatan kualitas bunga. *Jurnal Hasil Penelitian Sleman.* 1(1): 25-40.
- Yeh, D.M. & H.F.Lin. 2003. Thremostability of cell membranes as a measure of heat tolerance and relationship to flowering delay in chrysanthemum. *J. Amer. Soc. Hort. Sci.* 128(5): 656-660.
- Yuan, X.K. & Z. Q. Yang. 2018. The effect of endogenous hormones on plant morphology and fruit quality of tomato under difference between day and night temperature. *Hort. Sci.* 45(3): 131:138.
- Yuan, C., S. Ahmad, T Cheng,J. Wang, H. Pan, L. Zhao & Q. Zhang. 2018. Red to far-red light ratio modulates hormonal and genetic control of axillary bud outgrowth in *Chrysanthemum* (*Dendrathera grandiflorum* ‘Jinba’). *Intl. J.Mol. Sci.*19: 1590.
- Zalewska, M. & M. Antkowiak. 2013. Gibberellic acid effect on growth and flowering of *Ajania pacifia*/ Nakai/ Bremer et Humphries. *J. Hortic. Res.* 21(1):21-27.
- Zamani, S., E. Hadavi, M. Kazemi & J. Hekmati. 2011. Effect of some chemical treatmens on keeping quality and vaselife chrysanthemum cut flowers. *World. Appl. Sci.* 12(11): 1962-1966.
- Zhang, L., L. Li, J. Wu, J. Peng, L. Zhang & X. Wang. 2012. Cell expansion and microtubule behavior in ray floret petals of *Gerbera hybrid* : responses to light and gibberelic acid. *Photochem. Photobiol. Sci.* 11:279-288.
- Zhang, Y., M. Sun & Q. Zhang. 2014. Proteomic analysis of the heat stress response in leaves of two contrasting chrysanthemum varieties.*POJ.* 7(4):229-236.

Zhao, D. & J. Tao. 2015. Recent advances on the development regulation of flower color in ornamental plants. FPLS. 6(261):1-13.

Zhao , D., Z. Hao & J. Tao 2012. Effctes of shade on plant growth and flower quality in the herbaceous peony (*Paeonia lactiflora* Pall.). Plant. Physiol. Biochem. 61 :187-196.