

PUSTAKA ACUAN

- Alscher, R.G., Erturk, N. & Heath, L.S. 2002. Role of superoxide dismutase in controlling oxidative stress in plants. *Journal of Experimental Botany*. 53: 1331–1341
- Amin, A.W. 2002. Cytotoxicity testing of sewage water treatment using *Allium cepa* chromosome aberration assay. *Pak J Biol Sci*, 5: 184–188
- Anjum, N.A., Gill, S.S., Duarte, A.C., Pereira, E., & Ahmad, I. 2013. Silver nanoparticles in soil-plant systems. *Journal of Nanoparticle Research*, 15(9)
- Anjum, N.A., Sharma, P., Gill, S.S., Hasanuzzaman, M., Khan, E.A., Kachhap, K., Mohammed, A.A., Thangavel, P., Devi, G.D., Vasudhevan, P., Sofo, A., Khan, N.A., Misra, A.N., Lukatkin, A.S., Singh, H.P., Pareira, E. & Tuteja, N. 2016. Catalase and ascorbate peroxidase – representative H₂O₂- detoxifying heme enzymes in plants. *Environ Sci Pollut Res* (2016): 1-28
- Aryanta, I.W.R. 2019. Bawang Merah Dan Manfaatnya Bagi Kesehatan. *Widya Kesehatan*, 1(1): 29–35
- Atmawidjaja, S., Tjahjono, D.H. & Rudiyanto. 2004. Pengaruh Perlakuan terhadap Kadar Residu Pestisida Metidation pada Tomat. *Acta Pharmaceutica Indonesia*, 29(2): 1-9
- Badan Pusat Statistik. 2018. Statistik Tanaman Sayuran dan Buah-buahan Semusim Indonesia, 2018. Badan Pusat Statistik Republik Indonesia. Jakarta.
- Basantani, M., Srivastava, A. & Sen, S. 2011. Elevated antioxidant response and induction of tau-class glutathione Stransferase after glyphosate treatment in *Vigna radiata* (L.) Wilczek. *Pesticide Biochemistry and Physiology*, 99: 111–117
- Basuki, R.S. 2009. Analisis Kelayakan Teknis dan Ekonomis Teknologi Budidaya Bawang Merah dengan Benih Biji Botani dan Benih Umbi Tradisional. *J. Hort.*, 19(3): 5–8
- Bergmeyer, H.U. 1970. *Methoden der enzymatischen Analyse*. Verlag Cheimie, Weinheim, pp. 1610-1682

- Boo, Y.C., & Jung, J., 1999. Water deficit—induced oxidative stress and antioxidative defenses in rice plants. *J. Plant Physiol*, 155(2): 255–261.
- Botías, C., David, A., Hill, E. M., & Goulson, D. 2016. Contamination of wild plants near neonicotinoid seed-treated crops, and implications for non-target insects. *Science of the Total Environment*, pp. 566–567, 269–278
- Calvelo, P.R., Monterroso, C., Macias, F. 2010. Phytotoxicity of hexachlorocyclohexane: effect on germination and early growth of different plant species. *Chemosphere*, 79: 326
- Chen, Q., Zhang, M. & Shen, S. 2010. Effect of salt on malondialdehyde and antioxidant enzymes in seedling roots of Jerusalem artichoke (*Helianthus tuberosus* L.). *Acta Physiol Plant*, 33: 273–278
- Christofi, N. 2005. *BIOASSAYS | Microbial Tests*. Encyclopedia of Analytical Science, Elsevier. UK, pp. 265-271
- Dagnino, A., Sforzini, S., Dondero, F., Fenoglio, F., Bona, E., Jensen, J. & Viarengo, A. 2008. A “weight of evidence” approach for the integration of environmental “triad” data to assess ecological risk and biological vulnerability. *Integr Environ Assess Manag*, 4(3): 314-26
- Dalvi, R.R., Singh, B., Salunkhe, D.K. 1972. Influence of selected pesticides on germination and associated metabolic changes in wheat and mung bean seeds. *J. Agric. Food Chem*, 20: 1000–1003.
- David, P. 1995. Amounts of pesticides reaching target pests: Environmental impacts and ethics. *Journal of Agricultural and Environmental Ethics*, 8(1): 17–29
- Dhanamanjuri, W., Thoudam, R. & Dutta, B.K. 2013. Effect of some pesticides (Fungicides) on the germination and growth of seeds/seedlings of some crop plants (i.e. *Cicer arietinum* and *Zea Mays*). *Middle East J Sci Res*, 17(5): 627–632
- Dey, A. & De, J.N. 2012. Antioxidative potential of bryophytes: stress tolerance and commercial perspectives: a review. *Pharmacologia*, 3:151–159
- El-Sayyad, H.I., Tag-Eldin, Y.M., Khalifa, S.A., Abd El-Wahab, A.A. & G. El-Desoky, T.M. 2017. Role of biochemical markers for evaluation of

- oxidative stress in senile cataract. *J Mol Biomark Diagn*, (2):2-8
- Fatma, F., Verma, S., Kamal, A., & Srivastava, A. 2017. Phytotoxicity of pesticides mancozeb and chlorpyrifos: correlation with the antioxidative defence system in *Allium cepa*. *Physiology and Molecular Biology of Plants*, 24(1): 115–123
- Farre M., Fernandez, J., Paez, M., Granada, L., Barba, L., Gutierrez, H. M., Pulgarin, C., & Barcelo D. 2002. Analysis and Toxicity of Methomyl and Ametryn After Biodegradation. *Anal Bioanal Chem*, (373): 704–709
- Goswami, M.R., Banerjee, P., Swarnakar, S. & Mukhopadhyay, A. 2013. Carbaryl mediated biochemical alterations in Eggplant (*Solanum melongena* L.). *Int J Res Environ Sci Technol*, 3(2): 51
- Guanggang, X., Diqu, L., Jianzhong, Y., Jingmin, G., Huifeng, Z., Mingan, S., & Liming, T. 2013. Carbamate insecticide methomyl confers cytotoxicity through DNA damage induction. *Food and Chemical Toxicology*, 53, 352–358
- Guan, Z., Chai, T., Zhang, Y., Xu, J. & Wei, W. 2009. Enhancement of Cd tolerance in transgenic tobacco plants overexpressing a Cd-induced catalase Cdna. *Chemosphere*, 76 (5): 623–630.
- Gupta, K., Talwar, G., Jain, V., Dhawan, K., & Jain, S. 2003. Salad Crops | Root, Bulb, and Tuber Crops. *Encyclopedia of Food Sciences and Nutrition*, 5060–5073
- Habtam, A., Shelema, M., Kedar, R. & Ebsa, S. 2013. Seed germination and seedling growth of Haricot bean (*Phaseolus vulgaris*) cultivars as influenced by copper sulphate. *World Sci Res J*, 10: 312–317
- Hagger, J.A., Jones, M.B., Leonard, D.R., Owen, R. & Galloway, T.S. 2006. Biomarkers and integrated environmental risk assessment: are there more questions than answers? *Integr Environ Assess Manag*, 2(4): 312-29.
- Hakiki, A.N. 2015. Kajian Aplikasi Sitokinin terhadap Pertumbuhan dan Hasil Bawang Merah (*Allium ascalonicum* L.) pada Beberapa Komposisi Media Tanam Berbahan Organik. *Skripsi*. Universitas Jember. Jember. 42 hlm.
- Harnpicharnchai, K., Chaiear, N., & Chareerntanyarak, L. 2013. Residues of

- organophosphate pesticides used in vegetable cultivation in ambient air, surface water and soil in Bueng Niam subdistrict, Khon Kaen, Thailand. *Southeast Asian Journal of Tropical Medicine and Public Health*, 44(6), 1088–1097.
- Hayes, Jr., Wayland J. 1991. "Dosage and Other Factors Influencing Toxicity" from Handbook of Pesticide Toxicology vol. I. Academic Press. San Diego. pp. 39-96.
- Hook S.E., Gallagher E.P., Batley G.E. 2014. The role of biomarkers in the assessment of aquatic ecosystem health. *Integr Environ Assess Manag*, 10(3): 327-41
- Insani, A. Y., Novi Marchianti, A. C., & Wahyudi, S. S. 2018. Perbedaan Efek Paparan Pestisida Kimia dan Organik terhadap Kadar Glutation (GSH) Plasma pada Petani Padi. *Jurnal Kesehatan Lingkungan Indonesia*, 17(2): 63
- [ITIS] Integrated Taxonomic Information System. 2021. *Taxonomic Hierarchy: Allium ascalonicum* L. Accessed 20 Desember 2021.
<https://www.itis.gov/servlet/SingleRpt/SingleRpt?search_topic=TSN&search_value=506481#null>
- Jan, S., Parween, T., Siddiqi, T.O. & Mahmooduzzafar. 2012. Effect of gamma radiation on morphological, biochemical and physiological aspects of plants and plant products. *Environ Rev* 20: 7–39
- Jiang, L. & Yang, H. 2009. Prometryne-induced oxidative stress and impact on antioxidant enzymes in wheat. *Ecotoxicol Environ Saf*, 72: 1687–1693
- Jianga, L., Maa, L., Suia, Y., Hna, S.Q., Wua, Z.Y., Fenga, Y.X. & Yanga, H. 2010. Effect of manure compost on the herbicide prometryne bioavailability to wheat plants. *J Hazard Mater*, 184:337–344
- Kamrin, M.A. 1997. *Pesticide profiles: toxicity, environmental impact, and fate*. Lewis Publisher, New york, pp. 76-78
- Karlina, L., Daud, A., & Ruslan. 2013. Cabai Rawit Di Pasar Terong Dan Lotte Mart Kota Makassar. *Fakultas Kesehatan Masyarakat UNHAS*. Makassar
- Kaushal, J., Mehandia, S., Singh, G., Raina, A. & Arya, S. K. 2018. Catalase

- enzyme: application in bioremediation and food industry. *Biocatalysis and Agricultural Biotechnology*, 16: 192–199
- Koornneef M, Bentsink L, Hilhorst H. 2002. Seed dormancy and germination. *Curr Opin Plant Biol*, 5(1): 33
- Kumar, V., Shahi, S.K., Romanholo Ferreira, L.F., Bilal, M., Biswas, J.K., & Bulgariu, L. 2021. Detection and characterization of refractory organic and inorganic pollutants discharged in biomethanated distillery effluent and their phytotoxicity, cytotoxicity and genotoxicity assessment using *Phaseolus aureus* L. and *Allium cepa* L. *Environmental Research*, 111551.
- Lionetto, M.G., Caricato, R., and Giordano, E. 2019. Pollution Biomarkers in Environmental and Human Biomonitoring. *The Open Biomarkers Journal*, 9: 1-9
- Lu, F.C. 1995. Toksikologi Dasar, ed. 2. UI Press, Jakarta, pp. 328-330
- Madhusudhan, R., Ishikawa, T., Sawa, Y., Shigeoka, S. & Shibata, H. 2003. Characterization of an ascorbate peroxidase in plastids of tobacco BY-2 cells. *Physiol. Plant*, 117(4): 550-557
- Maestroni, B., Ferris, I.G., Correll, R., Kohlmann, B., Nordgaard, A., Kookana, R.S., and Cannavan, A. 2018. Chapter 2 - Generic Guidelines on Integrated Analytical Approaches to Assess Indicators of Pesticide Management Practices at a Catchment Scale: Black-Box Monitoring and the Laboratory's Role in Fostering Good Agricultural Practice. *Integrated Analytical Approaches for Pesticide Management*, Academic Press. US, pp. 7–27
- Mahmood, Q., Bilal, M., & Jan, S. 2014. Herbicides, Pesticides, and Plant Tolerance: An Overview. An Overview. In *Emerging Technologies and Management of Crop Stress Tolerance: Biological Techniques* (Vol. 1).
- Mansour, S.A., Abbassy, M.A., & Shaldam, H.A. 2017. Zinc ameliorate oxidative stress and hormonal disturbance induced by methomyl, abamectin, and their mixture in male rats. *Toxics*, 5(4): 1–17
- Marinov-Serafimov, P. 2009. A preliminary study of soybean genotype responses to glyphosate. *Pesticides Phytomedicine*, 24: 211–219

- Mhamdi, A., Queval, G., Chaouch, S., Vanderauwera, S., Breusegem, F.V. & Noctor, G. 2010. Catalase function in plants: a focus on *Arabidopsis* mutants as stress-mimic models. *J. Exp. Bot.*, 61(15): 4197–4220.
- Mittler, R. & Zilinskas, B.A. 1992. Molecular cloning and characterization of a gene encoding pea cytosolic ascorbate peroxidase. *J. Biol. Chem.*, 267(30): 21802-21807
- Mittler, R. 2002. Oxidative stress, antioxidants and stress tolerance. *Trends in Plant Science*, 7(9): 405–410
- Moller, P., Danielsen, P.H., Karottki, D.G., Jantzen, K., Roursgaard, M., Klingberg, H., Jensen, D.M., Christophersen, D.V., Hemmingsen, J.G., Cao, Y. & Loft, S. 2014. Oxidative stress and inflammation generated DNA damage by exposure to air pollution particles. *Mutat Res, Rev Mutat Res*, 762: 133–166
- Moussa, R. & Abdel-Aziz, S.M. 2008. Comparative response of drought tolerant and drought sensitive maize genotypes to water stress. *Aust. J. Crop. Sci.*, 1(1): 31–36
- Moustafa, G.G., Ibrahim, Z.S., Hashimoto, Y., Alkelch, A.M., Sakamoto, K.Q., Ishizuka, M., & Fujita, S. 2007. Testicular toxicity of profenofos in matured male rats. *Archives of Toxicology*, 81(12): 875–881.
- Mrema, E.J., Rubino, F.M., Brambilla, G., Moretto, A., Tsatsakis, A.M. & Colosio, C. 2013. Persistent organochlorinated pesticides and mechanisms of their toxicity. *Toxicology*, 307:74–88
- Nakano, Y., and Asada, K. 1981. Hydrogen peroxide is scavenged by ascorbate-specific peroxidase in spinach chloroplasts. *Plant and Cell Physiology*, 22: 867-880
- Naksen, W., Prapamontol, T., Mangklabruks, A., Chantara, S., Thavornnyutikarn, P., Robson, M. G. & Panuwet, P. 2016. A single method for detecting 11 organophosphate pesticides in human plasma and breastmilk using GC-FPD. *Journal of Chromatography B: Analytical Technologies in the Biomedical and Life Sciences*, 1025: 92–104
- Nicholls, D.G. & Budd, S.L. 2000. Mitochondria and Neuronal Survival. *Physiological Reviews*, 80(1): 315-360

- Nielson, M.H. & Rank, J. 1994. Screening of toxicity and genotoxicity in waste water by the use of *Allium* test. *Hereditas* 121: 249–254
- Pandey, K.B. & Rizvi, S.I. 2010. Markers of oxidative stress in erythrocytes and plasma during aging in humans. *Oxid Med Cell Longev*, 3: 2–12
- Patterson, W.R., & Poulos, T.L. 1995. Crystal structure of recombinant pea cytosolic ascorbate peroxidase. *Biochemistry*, 34(13): 4331–4341
- Peixoto, F., Alves-Fernandes, D., Santos, D., & Fontainhas-Fernandes, A. 2006. Toxicological effects of oxyfluorfen on oxidative stress enzymes in tilapia *Oreochromis niloticus*. *Pesticide Biochemistry and Physiology*, 85(2): 91–96
- Poedjiadi, A. 1994. *Dasar-Dasar Biokimia*. Penerbit UI-Press, Jakarta.
- Radetski, C.M., Ferrari, B., Cotelle, S., Masfaraud, J.F., & Ferard, J.F. 2004. Evaluation of the genotoxic, mutagenic and oxidant stress potentials of municipal solid waste incinerator bottom ash leachates. *Science of the Total Environment*, 333(1–3): 209–216
- Rusman, A. 2018. Uji aktivitas penghambatan enzim alfa glukosinadase dan aktivitas antioksidan ekstrak, fraksi serta kombinasi fraksi aktif herba sambiloto (*Andrographis paniculata* (Burm.f) Ness) dan fraksi aktif herba pegagan (*Cenntella asiatica* (L.) Urban). *Tesis*. Magister Ilmu Farmasi Universitas Gadjah Mada. Yogyakarta
- Saputra, P.E. 2016. Respon Tanaman Bawang Merah (*Allium ascalonicum* L.) Akibat Aplikasi Pupuk Hayati dan Pupuk Majemuk NPK dengan Berbagai Dosis. *Skripsi*. Universitas Lampung. Lampung, pp. 11
- Shakir, S.K., Kanwal, M., Murad, W., Zia ur Rehman, Shafiq ur Rehman, Daud, M.K., & Azizullah, A. 2016. Effect of some commonly used pesticides on seed germination, biomass production and photosynthetic pigments in tomato (*Lycopersicon esculentum*). *Ecotoxicology*, 25(2): 329–341
- Sharma, P., Jha, A.B., Dubey, R.S., & Pessarakli, M. 2012. Reactive Oxygen Species, Oxidative Damage, and Antioxidative Defense Mechanism in Plants under Stressful Conditions. *Journal of Botany*, 2012: 1–26
- Singh, G. & Kaur, D. 2016. Studies on the antioxidative stress responses of

- fungicides carbendazim and mancozeb in seedlings of brassica (*Brassica campestris* L.). *Int Res J Environ Sci*, 5(2): 57–62
- Smýkal, P., Vernoud, V., Blair, M.W., Soukup, A. & Thompson, R.D. 2014. The role of the testa during development and in establishment of dormancy of the legume seed. *Front Plant Sci*, 5: 351
- Song, N.H., Yin, X., Chen, G.F. & Yang, H. 2007. Biological responses of wheat (*Triticum aestivum*) plants to the herbicide chlorotoluron in soils. *Chemosphere*, 69:1779–1787
- Songa, E.A., & Okonkwo, J.O. 2016. Recent approaches to improving selectivity and sensitivity of enzyme-based biosensors for organophosphorus pesticides: A review. *Talanta*, 155, 289–304.
- Sopha, G.A. 2010. *Teknik Persemaian True Shallots Seed (TSS)*. Balai Penelitian Tanaman Sayuran. Bandung.
- Spiers, J.D., Davies, T., He, C., Heinz, K.M., Bogran, C.E., Starman, T.W. 2008. Do insecticide affect plant growth and development? *Greenh. Grow*, 2: 1–3.
- Surajudeen, Y.A., Sheu, R.K., Ayokulehin, K.M., & Olatunbosun, A.G. 2014. Oxidative stress indices in Nigerian pesticide applicators and farmers occupationally exposed to organophosphate pesticides. *International Journal of Applied and Basic Medical Research*, 4(3): 37
- Swacita I.B.N. 2017. *Bahan Ajar Kesehatan Lingkungan: Pestisida dan Dampaknya Terhadap Lingkungan*. Fakultas Kedokteran Hewan Universitas Udayana, Bali.
- Tanwir, K., Amna, Javed, M.T., Shahid, M., Akram, M.S. & Ali, Q. 2021. Chapter 32 - Antioxidant defense systems in bioremediation of organic pollutants. In: Hasanuzzaman, M. & Prasad, M.N.V. *Handbook of Bioremediation*. Academic Press, London, pp. 505-5021
- Tevini, M. & Teramura, A.H. 1989. UV-B effects on terrestrial plants. *Photochem Photobiol*, 50: 479–487
- Tsaboula, A., Papadakis, E.N., Vryzas, Z., Kotopoulou, A., Kintzikoglou, K. & Mourkidou, E.P. 2016. Environmental and human risk hierarchy of pesticides: a prioritization method, based on monitoring, hazard

- assessment and environmental fate. *Environ Int*, 91: 78–93
- Udiarto, B.K., Setiawati, W. & Suryaningsih, E. 2005. *Pengenalan Hama dan Penyakit pada Tanaman Bawang Merah dan Pengendaliannya*. Balai Penelitian Tanaman Sayuran. Bandung. pp. 1-20
- Valavanidis, A., Vlahogianni, T., Dassenakis, M., & Scoullou, M. 2006. Molecular biomarkers of oxidative stress in aquatic organisms in relation to toxic environmental pollutants. *Ecotoxicology and Environmental Safety*, 64(2): 178–189
- Van scoy, A.R., Yue, M., Deng, X., & Tjeedema, R.S. 2013. *Environmental Fate and Toxicology of Methomyl*. Springer, New York, p. 105
- Van Wijngaarden, R.P.A., Brock, T.C.M., & Van Den Brink, P.J. 2005. Threshold levels for effects of insecticides in freshwater ecosystems: A review. *Ecotoxicology*, 14(3): 355–380
- Wang, J., Zhang, H. & Allen, R.D. 1999. Overexpression of an *Arabidopsis* peroxisomal ascorbate peroxidase gene in tobacco increase protection against oxidative stress. *Plant Cell Physiol.*, 40(7): 725-732
- Wang, S. H., Yang, Z. M., Yang, H., Lu, B., Li, S. Q., & Lu, Y. P. (2004). Copper-induced stress and antioxidative responses in roots of *Brassica juncea* L. *Botanical Bulletin of Academia Sinica*, 45(3), 203–212.
- Wang, L., Y. Kanga, S. Lianga, D. Chena, Q. Zhanga, L. Zenga, J. Luoa, F. Jianga. 2018. Synergistic effect of co-exposure to cadmium (II) and 4-nonylphenol on growth inhibition and oxidative stress of *Chlorella sorokiniana*. *Ecotoxicology and environmental safety* 154:145–153
- Wati, Y. T., Nurlaelih, E. E., & Santoso, M. 2015. Pengaruh Aplikasi Biourin pada Pertumbuhan dan Hasil Tanaman Bawang Merah (*Allium ascalonicum* L.). *Jurnal Produksi Tanaman*, 2(8): 613–619
- Welinder, K.G. 1992. Superfamily of plant, fungal and bacterial peroxidases. *Curr. Opin. Struct. Biol.* 2(3): 388-393
- Willekens, H., Chamnongpol, S. & Davey, M. 1997. Catalase is a sink for H₂O₂ and is indispensable for stress defence in C-3 plants. *EMBO J.*, 16 (16): 4806–4816.

- Wibowo, S. 2007. *Budidaya Bawang Merah*. Penebar Swadaya. Jakarta, pp. 212
- Wu, X.Y. & Von Tiedemann, A. 2002. Impact of fungicides on active oxygen species and antioxidant enzymes in spring barley (*Hordeum vulgare* L.) exposed to ozone. *Environ Pollut*, 116: 37–47
- Wu, G.L., Cui, E.J., Tao, E.L. & Yang, E.H. 2010. Fluroxypyr triggers oxidative damage by producing superoxide and hydrogen peroxide in rice (*Oryza sativa*). *Ecotoxicology*, 19:24–132
- Yildiztekin, M., Kaya, C., Tuna, A.L. & Ashraf, M. 2015. Oxidative stress and antioxidative mechanisms in tomato (*Solanum lycopersicum* L.) plants sprayed with different pesticides. *Pak J Bot*, 47(2):717–721
- Yuantari, M.G., Catur, Widiarnako B. & Sunoko, H.R. 2013. Tingkat Pengetahuan Petani dalam Menggunakan Pestisida (Studi Kasus di Desa Curut Kecamatan Penawangan Kabupaten Grobogan). *Prosiding Seminar Nasional Pengelolaan Sumberdaya Alam dan Lingkungan 2013*. ISBN 978-602-17001-1-2 142
- Yumarto, A.G. & Sylvia S. 2012. Uji Residu Pestisida pada Cabai (*Capsicum annum* L.) di Kabupaten Pinrang Provinsi Sulawesi Selatan. *Tesis*. Fakultas Pertanian UNHAS. Makassar
- Zhang, G.L., Chen, W.J., Qiu, L.M., Sun, G.R., Dai, Q.G. & Zhang, H.C. 2009. Physiological response to 124-trichlorobenzene stress of different rice genotypes. *Acta Agron Sinica*, 35:733–740
- Zou, K.H., Tuncali, K. & Silverman, S.G. 2003. Correlation and simple linear regression. *Radiology*, 227: 617–622