DAFTAR PUSTAKA

Abbas, A., Ullah, F., Hafeez, M., Han, X., Dara, M. Z. N., Gul, H., & Zhao, C. R. (2022). Biological Control of Fall Armyworm, Spodoptera frugiperda. In *Agronomy* (Vol. 12, Issue 11). MDPI. https://doi.org/10.3390/agronomy12112704

Abbe, E. C., & Stein, O. L. (1954). The Growth of the Shoot Apex in Maize. *American Journal of Botany*, *41*(4), 285–293. http://www.jstor.org

Altieri, M. A. (1999). The ecological role of biodiversity in agroecosystems. In *Ecosystems and Environment* (Vol. 74).

Altieri, M. A., Nicholls, C. I., & Fritz, M. (2005). *Manage insects on your farm : a guide to ecological strategies*. Sustainable Agriculture Network.

Aprialty, A. S., Sjam, S., Dewi, V. S., & Agustina, Y. E. (2021). The synergy of Calotropis gigantea and Cresscentia cujete plant extracts as an inhibitor of egg hatching and antifeedant against Spodoptera frugiperda. *IOP Conference Series: Earth and Environmental Science*, *807*(2). https://doi.org/10.1088/1755-1315/807/2/022086

Astuti, K., Prasetyo, O. R., & Khasanah, I. N. (2021). *Analisis Produktivitas Jagung dan Kedelai di Indonesia 2020 (Hasil Survei Ubinan).pdf*. BPS-Statistics Indonesia.

Badu-Apraku, B., & Fakorede, M. A. B. (2017). Morphology and Physiology of Maize. In *Advances in Genetic Enhancement of Early and Extra-Early Maize for Sub-Saharan Africa* (pp. 33–53). Springer International Publishing. https://doi.org/10.1007/978-3-319-64852-1_3

Barnes, R. D. (2023, May 18). arthropod. Encyclopedia Britannica. https://www.britannica.com/animal/arthropod

Bauddh, K., Kumar, S., Singh, R. P., & Korstad, J. (2020). Ecological and practical applications for sustainable agriculture. In *Ecological and Practical Applications for Sustainable Agriculture*. Springer Singapore. https://doi.org/10.1007/978-981-15-3372-3

Bennett, A. (2018). *Using Insectary Plants to Attract and Sustain Beneficial Insects for Biological Pest Control*. http://aces.nmsu.edu/pubs/_circulars/CR655.pdf

Bennetzen, J., & Hake, S. (2009). *Handbook of Maize: Its Biology*. Springer Science and Business Media, LLC. https://doi.org/10.1007/978-0-387-79418-1

Berg, J. van den, Britz, C., & Plessis, H. du. (2021). Maize yield response to chemical control of spodoptera frugiperda at different plant growth stages in south africa †. *Agriculture (Switzerland)*, *11*(9). https://doi.org/10.3390/agriculture11090826

Bhan, M. K. (2011). *Biology of Maize*. Department of Biotechnology Ministry of Environment and Forest.

Bomford, M., & Mcneill, S. (2015). *Organic Corn Production in Kentucky*. https://doi.org/10.13140/RG.2.1.4305.1121

Brenas, S. V., Celette, F., Piquet-Pissaloux, A., & David, C. (2016). Biotic and abiotic factors impacting establishment and growth of relay intercropped forage legumes. *European Journal of Agronomy*, *81*, 169–177. https://doi.org/10.1016/j.eja.2016.09.018

Buxton, P. A. (1932). TERRESTRIAL INSECTS AND THE HUMIDITY OF THE ENVIRONMENT. *Biological Reviews*, *7*(4), 275–320. https://doi.org/https://doi.org/10.1111/j.1469-185X.1962.tb01044.x

Camacho, L. F., Barragán, G., & Espinosa, S. (2021). Local ecological knowledge reveals combined landscape effects of light pollution, habitat loss, and fragmentation on insect populations. *Biological Conservation*, *262*, 109311. https://doi.org/https://doi.org/10.1016/j.biocon.2021.109311

Capinera, J. L. (2008). Maize (Corn) Pests and Their Management. In J. L. Capinera (Ed.), *Encyclopedia of Entomology* (pp. 2266–2272). Springer Netherlands. https://doi.org/10.1007/978-1-4020-6359-6_1684

Capinera, J. L. (2017). *Fall Armyworm, Spodoptera frugiperda (J.E. Smith) (Insecta: Lepidoptera: Noctuidae)*. https://doi.org/doi.org/10.32473/edis-in255-2000

Chen, C., Harvey, J. A., Biere, A., & Gols, R. (2019). Rain downpours affect survival and development of insect herbivores: the specter of climate change? *Ecology*, *100*(11), e02819. https://doi.org/https://doi.org/10.1002/ecy.2819

Costa, C. A., Guiné, R. P. F., Costa, D. V. T. A., Correia, H. E., & Nave, A. (2019). Pest Control in Organic Farming. In *Organic Farming* (pp. 41–90). Elsevier. https://doi.org/10.1016/B978-0-12-813272-2.00003-3.

da Silva, V. F., dos Santos, A., Silveira, L. C. P., Tomazella, V. B., & Ferraz, R. M. (2022). Push-pull cropping system reduces pests and promotes the abundance and richness of natural enemies in brassica botanical crops. *Biological Control*, *166*, 104832. https://doi.org/https://doi.org/10.1016/j.biocontrol.2021.104832

Davis, F. M., Sen, S. N., & Wiliam, P. W. (1992). *Visual rating scales for screening whorl-stage corn for resistance to fall armyworm*. Mississippi State University.

Day, R., Abrahams, P., Bateman, M., Beale, T., Clottey, V., Cock, M., Colmenarez, Y., Corniani, N., Early, R., Godwin, J., Gomez, J., Moreno, P. G., Murphy, S. T., Oppong-Mensah, B., Phiri, N., Pratt, C., Silvestri, S., & Witt, A. (2017). Fall armyworm: Impacts and implications for Africa. *Outlooks on Pest Management*, *28*(5), 196–201. https://doi.org/10.1564/v28_oct_02

De Groote, H., Kimenju, S. C., Munyua, B., Palmas, S., Kassie, M., & Bruce, A. (2020). Spread and impact of fall armyworm (Spodoptera frugiperda J.E. Smith) in maize production areas of Kenya. *Agriculture, Ecosystems and Environment*, *292*. https://doi.org/10.1016/j.agee.2019.106804

Desneux, N., Decourtye, A., & Delpuech, J. M. (2007). The sublethal effects of pesticides on beneficial arthropods. In *Annual Review of Entomology* (Vol. 52, pp. 81–106). https://doi.org/10.1146/annurev.ento.52.110405.091440

Dicke, F. F., & Guthrie, W. D. (1988). The Most Important Corn Insects. In G. F. Sprague & J. W. Dudley (Eds.), *Corn and Corn Improvement-Agronomy Monographs* (3rd ed., Vol. 18, pp. 767–867). https://doi.org/https://doi.org/10.2134/agronmonogr18.3ed.c13

Divekar, P. A., Narayana, S., Divekar, B. A., Kumar, R., Gadratagi, B. G., Ray, A., Singh, A. K., Rani, V., Singh, V., Singh, A. K., Kumar, A., Singh, R. P., Meena, R. S., & Behera, T. K. (2022). Plant Secondary Metabolites as Defense Tools against Herbivores for Sustainable Crop Protection. In *International Journal of Molecular Sciences* (Vol. 23, Issue 5). MDPI. https://doi.org/10.3390/ijms23052690

Elewa, A. M. T. (2007). An introduction to predation in organisms. In A. M. T. Elewa (Ed.), *Predation in Organisms: A Distinct Phenomenon* (pp. 1–5). Springer Berlin Heidelberg. https://doi.org/10.1007/978-3-540-46046-6_1

Enjin, A. (2017). Humidity sensing in insects—from ecology to neural processing. *Current Opinion in Insect Science*, *24*, 1–6. https://doi.org/https://doi.org/10.1016/j.cois.2017.08.004

Erenstein, O., Jaleta, M., Sonder, K., Mottaleb, K., & Prasanna, B. M. (2022). Global maize production, consumption and trade: trends and R&D implications. In *Food Security* (Vol. 14, Issue 5, pp. 1295–1319). Springer Science and Business Media B.V. https://doi.org/10.1007/s12571-022-01288-7

Feldman, L. (1994). The Maize Root. In V. Freeling Michael and Walbot (Ed.), *The Maize Handbook* (pp. 29–37). Springer New York. https://doi.org/10.1007/978-1-4612-2694-9_4

Feldmann, F., Rieckmann, U., & Winter, S. (2019a). The spread of the fall armyworm Spodoptera frugiperda in Africa—What should be done next? In *Journal of Plant Diseases and Protection* (Vol. 126, Issue 2, pp. 97–101). Springer Berlin Heidelberg. https://doi.org/10.1007/s41348-019-00204-0

Feldmann, F., Rieckmann, U., & Winter, S. (2019b). The spread of the fall armyworm Spodoptera frugiperda in Africa—What should be done next? In *Journal of Plant Diseases and Protection* (Vol. 126, Issue 2, pp. 97–101). Springer Berlin Heidelberg. https://doi.org/10.1007/s41348-019-00204-0

Ferrell, J. A., Dittmar, P. J., Sellers, B. A., & Devkota, P. (2020). *Herbicide Residues in Manure, Compost, or Hay 1*. https://doi.org/doi.org/10.32473/edis-ag416-2020

Frago, E., & Zytynska, S. (2023). Impact of herbivore symbionts on parasitoid foraging behaviour. *Current Opinion in Insect Science*, *57*, 101027. https://doi.org/https://doi.org/10.1016/j.cois.2023.101027

Gajger, I. T., & Dar, S. A. (2021). *Plant Allelochemicals as Sources of Insecticides*. https://doi.org/10.3390/insects

Ganni, O., Guera, M., Castrejón-Ayala, F., Robledo, N., Jiménez-Pérez, A., Sánchez-Rivera, G., Salazar-Marcial, L., & Flores Moctezuma, H. E. (2021). *Effectiveness of Push-Pull Systems to Fall Armyworm (Spodoptera frugiperda) Management in Maize Crops in Morelos, Mexico*. https://doi.org/10.3390/insects

Gibbons, P., Briggs, S. V, Zerger, A., Ayers, D., Seddon, J., & Doyle, S. (2007). Assessing the Biodiversity Value of Stands and Patches in a Landscape Context. In *Managing and Designing Landscapes for Conservation* (pp. 215–228). John Wiley & Sons, Ltd. https://doi.org/https://doi.org/10.1002/9780470692400.ch19

Gurnell, J., Wauters, L. A., Lurz, P. W. W., & Tosi, G. (2004). Alien species and interspecific competition: effects of introduced eastern grey squirrels on red squirrel population dynamics. In *Journal of Animal Ecology* (Vol. 73).

Hailu, G., Niassy, S., Zeyaur, K. R., Ochatum, N., & Subramanian, S. (2018). Maize–legume intercropping and push–pull for management of fall armyworm, stemborers, and striga in Uganda. *Agronomy Journal*, *110*(6), 2513–2522. https://doi.org/10.2134/agronj2018.02.0110

Hajek, A. E., & Eilenberg, J. (2018). Conservation and Enhancement of Natural Enemies. In *Natural Enemies* (pp. 85–106). Cambridge University Press. https://doi.org/10.1017/9781107280267.006

Harsimran, K. G., Gaurav, G., & Gurminder, C. (2017a). Insect Diapause: A Review. *Journal of Agricultural Science and Technology A*, *7*(7). https://doi.org/10.17265/2161-6256/2017.07.002

Harsimran, K. G., Gaurav, G., & Gurminder, C. (2017b). Insect Diapause: A Review. *Journal of Agricultural Science and Technology A*, *7*(7). https://doi.org/10.17265/2161-6256/2017.07.002

Herlinda, S., Pujiastuti, Y., Irsan, C., & Riyanto. (2021). *Buku Pengantar Ekologi Serangga*. UNSRI Press: Palembang.

Hickman, C. P., Roberts, L. S., & Larson, Allan. (2003). *Animal diversity*. McGraw-Hill.

Hochholdinger, F. (2009). The Maize Root System: Morphology, Anatomy, and Genetics. In S. C. Bennetzen Jeff L. and Hake (Ed.), *Handbook of Maize: Its Biology* (pp. 145–160). Springer New York. https://doi.org/10.1007/978-0-387-79418-1_8

Hruskal, A. J., & Gould, F. (1997). Fall Armyworm (Lepidoptera: Noctuidae) and Diatraea lineolata (Lepidoptera: Pyralidae): Impact of Larval Population Level and Temporal Occurrence on Maize Yield in Nicaragua Downloaded from. In *J. Econ. Entomo!* (Vol. 90, Issue 2). Andrews. http://jee.oxfordjournals.org/

Ikemoto, T. (2005). Intrinsic Optimum Temperature for Development of Insects and Mites. *Environmental Entomology*, *34*(6), 1377–1387. https://doi.org/10.1603/0046-225X-34.6.1377

Kehoe, R., Sanders, D., & van Veen, F. J. F. (2022). Towards a mechanistic understanding of the effects of artificial light at night on insect populations and

communities. *Current Opinion in Insect Science*, *53*, 100950. https://doi.org/https://doi.org/10.1016/j.cois.2022.100950

Kingsolver, J. G., Arthur Woods, H., Buckley, L. B., Potter, K. A., MacLean, H. J., & Higgins, J. K. (2011). Complex Life Cycles and the Responses of Insects to Climate Change. *Integrative and Comparative Biology*, *51*(5), 719–732. https://doi.org/10.1093/icb/icr015

Krebs, C. J. (2014). *Ecology : the experimental analysis of distribution and abundance* (6th ed.). British Library Cataloguing-in-Publication Data.

Kuate, A. F., Hanna, R., Doumtsop Fotio, A. R. P., Abang, A. F., Nanga, S. N., Ngatat, S., Tindo, M., Masso, C., Ndemah, R., Suh, C., & Fiaboe, K. K. M. (2019). Spodoptera frugiperda Smith (Lepidoptera: Noctuidae) in Cameroon: Case study on its distribution, damage, pesticide use, genetic differentiation and host plants. *PLoS ONE*, *14*(4). https://doi.org/10.1371/journal.pone.0215749

Kumar, B., Karjagi, Chikkappa. G., Jat, S. L., Parihar, C. M., Yathish, K. R., Singh, V., Hooda, K. S., Dass, A. K., Mukri, G., Sekhar, J. C., Kumar, R., & Kumar, R. S. (2012). *MAIZE BIOLOGY: AN INTRODUCTION DIRECTORATE OF MAIZE RESEARCH*. www.maizeindia.org;

Kumar, S. (2020). Abiotic Stresses and Their Effects on Plant Growth, Yield and Nutritional Quality of Agricultural Produce. *International Journal of Food Science and Agriculture*, *4*(4), 367–378. https://doi.org/10.26855/ijfsa.2020.12.002

Lengai, G. M. W., Muthomi, J. W., & Mbega, E. R. (2020). Phytochemical activity and role of botanical pesticides in pest management for sustainable agricultural crop production. In *Scientific African* (Vol. 7). Elsevier B.V. https://doi.org/10.1016/j.sciaf.2019.e00239

Liao, Y. L., Yang, B., Xu, M. F., Lin, W., Wang, D. Sen, Chen, K. W., & Chen, H. Y. (2019). First report of Telenomus remus parasitizing Spodoptera frugiperda and its field parasitism in southern China. *Journal of Hymenoptera Research*, *93*, 95–102. https://doi.org/10.3897/JHR.73.39136

Magurran, A. E. (1988). *Ecological Diversity and Its Measurement* (1st ed.). Princeton University Press. https://doi.org/DOI 10.1007/978-94-015-7358-0

Makgoba, M. C., Tshikhudo, P. P., Nnzeru, L. R., & Makhado, R. A. (2021). Impact of fall armyworm (Spodoptera frugiperda) (J.E. Smith) on small-scale maize farmers and its control strategies in the Limpopo province, South Africa. *Jamba: Journal of Disaster Risk Studies*, *13*(1), 1–9. https://doi.org/10.4102/JAMBA.V13I1.1016

McMullen Michael D. and Frey, M. and D. J. (2009). Genetics and Biochemistry of Insect Resistance in Maize. In S. C. Bennetzen Jeff L. and Hake (Ed.), *Handbook of Maize: Its Biology* (pp. 271–289). Springer New York. https://doi.org/10.1007/978-0-387-79418-1_14

Mekonnen, M. M., & Gerbens-Leenes, W. (2020). The water footprint of global food production. In *Water (Switzerland)* (Vol. 12, Issue 10). MDPI AG. https://doi.org/10.3390/w12102696

Menzel, F., & Feldmeyer, B. (2021). How does climate change affect social insects? *Current Opinion in Insect Science*, *46*, 10–15. https://doi.org/https://doi.org/10.1016/j.cois.2021.01.005

Montezano, D. G., Specht, A., Sosa-Gómez, D. R., Roque-Specht, V. F., Sousa-Silva, J. C., Paula-Moraes, S. V., Peterson, J. A., & Hunt, T. E. (2018). Host Plants of Spodoptera frugiperda (Lepidoptera: Noctuidae) in the Americas. In *African Entomology* (Vol. 26, Issue 2, pp. 286–300). Entomological Society of Southern Africa. https://doi.org/10.4001/003.026.0286

Natalia, H., Wijayanti, R., Gautama, R. G., Pradityo, P. S., Huda, R. N., Nurrochmah, R. A., & Nurzamin, A. (2020). Pemanfaatan jagung lokal oleh *industri pakan tahun 2019*. Direktorat Jenderal Peternakan dan Kesehatan Hewan Kementerian Pertanian RI.

Neumann, K., & Pinter-Wollman, N. (2022). The effect of resource availability on interspecific competition between a native and an invasive ant. *Philosophical Transactions of the Royal Society B: Biological Sciences*, *377*(1851). https://doi.org/10.1098/rstb.2021.0146

Nonci, N., Kalqutny, S. H., Mirsam, H., Muis, A., Azrai, M., & Aqil, M. (2019). *Pengenalan Fall Armyworm (Spodoptera frugiperda J.E.Smith)*. Balai Penelitian Tanaman Serealia.

Ogbuagu, M. N. (2008). The Nutritive and Anti-Nutritive Compositions of Calabash (Crescentia cujete) Fruit Pulp. *Journal of Animal and Veterinary Advances*, *7*(9), 1069–1072.

Palayukan, P. A., Sjam, S., Melina, Sulaeha, Rosmana, A., Dewi, V. S., & Budirman. (2021). Application of the combination of Calontropis gigantea L. And Crescentia cujete L. And Schirpophaga innotata and Leptocorisa acuta Thunb. And predator in paddy plants. *IOP Conference Series: Earth and Environmental Science*, *807*(2). https://doi.org/10.1088/1755-1315/807/2/022087

Pickett, J. A., Woodcock, C. M., Midega, C. A. O., & Khan, Z. R. (2014). Push-pull farming systems. In *Current Opinion in Biotechnology* (Vol. 26, pp. 125–132). https://doi.org/10.1016/j.copbio.2013.12.006

Pradhan, B., Rusinamhodzi, L., Subedi, R. (2019). System uses plants to lure fall armyworm away from maize fields Available from: https://www.cimmyt.org/news/system-uses-plants-to-lure-fall-armyworm-away-from-maize-fields/ [Accessed on 10 October 2022].

Prasanna, B., Huesing, J. E., Eddy, R., & Peschke, V. M. (2018). *Fall Armyworm in Africa: A GUIDE FOR INTEGRATED PEST MANAGEMENT*. www.maize.org.

Prasetya, G. I., Siregar, A. Z., & Marheni. (2022). Intensitas dan persentase serangan Spodoptera frugiperdaJ. E. Smith (Lepidoptera: Noctuidae) pada beberapa varietas jagung di Kecamatan Namorambe Kabupaten Deli Serdang. *Jurnal Pertanian Cemara*, *19*, 77–84. https://doi.org/https://doi.org/10.24929/fp.v19i1.1984

Pogue, G.M. (2002). A world revision of the genus Spodoptera Guenée (Lepidoptera: Noctuidae). Philadelphia: American Entomological Society 43: 1–202.

Retallack, M., Thomson, L., & Keller, M. (2019). Native insectary plants support populations of predatory arthropods for Australian vineyards. *BIO Web of Conferences*, *15*, 01004. https://doi.org/10.1051/bioconf/20191501004

Roy, K., Chandra, B., & Viswavidyalaya, K. (2020). *The Push Pull Strategy: An Eco-friendly Approach for Management of Fall Armyworm (Spodoptera frugiperda)*. https://doi.org/10.13140/RG.2.2.19965.18403

Sanaullah, M., Mujtaba, A., Haider, G., Rehman, H. ur, & Mubeen, F. (2022). Mitigation and actions toward nitrogen losses in Pakistan. In T. Aziz, A. Wakeel, M. A. Watto, M. Sanaullah, M. A. Maqsood, & A. Kiran (Eds.), *Nitrogen Assessment* (pp. 149–175). Academic Press. https://doi.org/https://doi.org/10.1016/B978-0-12-824417-3.00001-0

Sharma, P., Singh, A., Kahlon, C. S., Brar, A. S., Grover, K. K., Dia, M., & Steiner, R. L. (2018). The Role of Cover Crops towards Sustainable Soil Health and Agriculture—A Review Paper. *American Journal of Plant Sciences*, *09*(09), 1935–1951. https://doi.org/10.4236/ajps.2018.99140

Shimoda, M., & Honda, K. (2013). Insect reactions to light and its applications to pest management. *Applied Entomology and Zoology*, *48*(4), 413–421. https://doi.org/10.1007/s13355-013-0219-x

Shrestha, B., Finke, D. L., & Piñero, J. C. (2019). The 'botanical triad': The presence of insectary plants enhances natural enemy abundance on trap crop plants in an organic cabbage agro-ecosystem. *Insects*, *10*(6). https://doi.org/10.3390/insects10060181

Sjam, S. (2011). *Review Article: Teknologi Pengendalian Hama dalam Sistem Budidaya Sayuran Organik (Pest Control Technology in Organic Botanical Cultivation System) Combination of compost and Trichoderma for soil amendment View project*. https://www.researchgate.net/publication/304539946

Sjam, S., Rosmana, A., Dewi, V. S., Sari, D. E., Tresnaputra, U. S., & Herawati, A. (2017). Oviposition deterrent and ovicidal properties of Calotropis gigantea (L.) leaf extract to Paraeucosmetus pallicornis (Dallas) in rice. *Journal of Plant Protection Research*, *57*(3), 243–247. https://doi.org/10.1515/jppr-2017-0034

Skendžić, S., Zovko, M., Živković, I. P., Lešić, V., & Lemić, D. (2021). The impact of climate change on agricultural insect pests. In *Insects* (Vol. 12, Issue 5). MDPI AG. https://doi.org/10.3390/insects12050440

Smart, L. E., Blight, M. M., Pickett, J. A., & Pye, B. J. (1994). Development of field strategies incorporating semiochemicals for the control of the pea and bean weevil, Sitona lineatus L. *Crop Protection*, *13*. https://doi.org/https://doi.org/10.1016/0261-2194(94)90163-5

Smith, H. A., Capinera, J. L., & Martini, X. (2021). *Natural Enemies and Biological Control*. https://doi.org/doi.org/10.32473/edis-in1201-2018

Smith, H. A., & Liburd, O. E. (2018). *Intercropping, Crop Diversity and Pest Management*. http://edis.ifas.ufl.edu.

Sparks, A. N. (1979). A Review of the Biology of the Fall Armyworm. *The Florida Entomologist*, *62*(2), 82–87.

Syaefullah, B. L., Erwanto, Y., Wihandovo, Muhlisin, Prasetyo, R. A., Kurniawati, N., & Fitriyanto, N. A. (2020). Maja Fruit Extracts Inhibit Escherichia coli, Reduce Fly Larvae Population, and Ammonia Emission of Chicken Excreta. *Tropical Animal Science Journal*, *43*(4), 369–376. https://doi.org/10.5398/tasj.2020.43.4.369

Wallner, W. E. (1987). Factors Affecting Insect Population Dynamics: Differences Between Outbreak and Non-Outbreak Species. *Annual Review of Entomology*, *32*(1), 317–340. https://doi.org/10.1146/annurev.en.32.010187.001533

Wang, R., Jiang, C., Guo, X., Chen, D., You, C., Zhang, Y., Wang, M., & Li, Q. (2020). Potential distribution of Spodoptera frugiperda (J.E. Smith) in China and the major factors influencing distribution. *Global Ecology and Conservation*, *21*. https://doi.org/10.1016/j.gecco.2019.e00865

Wang, X. L., McCully, M. E., & Canny, M. J. (1995). Branch Roots of Zea. V. Structural Features that may Influence Water and Nutrient Transport. *Botanica Acta*, *108*(3), 209–219. https://doi.org/10.1111/j.1438-8677.1995.tb00852.x

Weisenburger, D. D. (1993). Human Health Effects of Agrichemical Use. *Human Pathology*, *24*(6), 571–576. https://doi.org/https://doi.org/10.1016/0046-8177(93)90234-8

Williams, C. B., & Osman, M. F. H. (1960). A New Approach to the Problem of the Optimum Temperature for Insect Activity. *Journal of Animal Ecology*, *29*(1), 187–189. https://doi.org/10.2307/2277

Wright, D. W., Mackowiak, C., & Newman, Y. C. (2018). *Benefits of Cover Crops for Soil Health*. http://nfrec.ifas.ufl.edu/programs/sod_rota-

Zhang, Z., Sun, X., Luo, Z., Gao, Y., & Chen, Z. (2013). The manipulation mechanism of “push–pull” habitat management strategy and advances in its application. *Acta Ecologica Sinica*, *33*(2), 94–101. https://doi.org/10.1016/j.chnaes.2013.01.005

LAMPIRAN

Tabel Lampiran 1. Rata-rata jumlah tangkapan *S. frugiperda* selama 8 kali pengamatan

Jenis tanaman penutup	Konsentrasi Pestisida nabati	Ulangan			Total	Rata-rata
		I	II	III		
A1	B1	10	16	2	28	9,33333
	B2	16	13	7	36	12
	B0/ Kontrol	10	13	14	37	12,3333
A2	B1	14	13	6	33	11
	B2	14	11	8	33	11
	B0/ Kontrol	11	15	11	37	12,3333
A3	B1	12	10	10	32	10,6667
	B2	10	15	9	34	11,3333
	B0/ Kontrol	11	12	13	36	12
A0/ Kontrol	B1	14	15	10	39	13
	B2	15	13	10	38	12,6667
	B0/ Kontrol	18	16	16	50	16,6667

Tabel Lampiran 1a. Hasil trasformasi rata-rata jumlah tangkapan *S. frugiperda* selama 8 kali pengamatan

Jenis tanaman penutup	Konsentrasi Pestisida nabati	Ulangan			Total	Rata-rata
		I	II	III		
A1	B1	3,24	4,06	1,58	5,34	3,14
	B2	4,06	3,67	2,74	6,04	3,54
	B0/ Kontrol	3,24	3,67	3,81	6,12	3,58
A2	B1	3,81	3,67	2,55	5,79	3,39
	B2	3,81	3,39	2,92	5,79	3,39
	B0/ Kontrol	3,39	3,94	3,39	6,12	3,58
A3	B1	3,54	3,24	3,24	5,70	3,34
	B2	3,24	3,94	3,08	5,87	3,44
	B0/ Kontrol	3,39	3,54	3,67	6,04	3,54
A0/ Kontrol	B1	3,81	3,94	3,24	6,28	3,67
	B2	3,94	3,67	3,24	6,20	3,63
	B0/ Kontrol	4,30	4,06	4,06	7,11	4,14

Hasil transformasi ($\sqrt{x}$ + 0,5)

Tabel Lampiran 1c. ANOVA rata-rata jumlah tangkapan *S. frugiperda* selama 8 kali pengamatan

Tests of Between-Subjects Effects

Dependent Variable: TRANSFORM_SQRT

Source		Type III Sum of Squares	df	Mean Square	F	Sig.
Intercept	Hypothesis	441,597	1	441,597	342,101	,003
	Error	2,582	2	1,291[a]		
JENIS_INTERCROPPING	Hypothesis	1,159	3	,386	1,959	,150
	Error	4,339	22	,197[b]		
KONSENTRASI_PESNAB	Hypothesis	,877	2	,438	2,222	,132
	Error	4,339	22	,197[b]		
JENIS_INTERCROPPING * KONSENTRASI_PESNAB	Hypothesis	,446	6	,074	,377	,886
	Error	4,339	22	,197[b]		
BLOK	Hypothesis	2,582	2	1,291	6,544	,006
	Error	4,339	22	,197[b]		

ANOVA

Transform_S

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	2,645	11	,240	,782	,655
Within Groups	7,384	24	,308		
Total	10,029	35			

Tabel Lampiran 1d. Uji lanjut Duncan rata-rata jumlah tangkapan *S. frugiperda* selama 8 kali pengamatan

Transform_S

Duncan[a,b]

JENIS_INTERCROPPING	N	Subset 1
A1	9	3,2597
A2	9	3,3544
A3	9	3,3567
A4	9	3,7400
Sig.		,053

Transform_S

Duncan[a,b]

KONSENTRASI_PESNAB	N	Subset 1
B1	12	3,2449
B2	12	3,4012
B3	12	3,6371
Sig.		,059

Transform_S

Duncan[a]

		Subset for alpha = 0.05	
INTERAKSI	N	1	2
A1B1	3	2,8588	
A3B1	3	3,2629	3,2629
A2B1	3	3,2656	3,2656
A2B2	3	3,2956	3,2956
A3B2	3	3,3451	3,3451
A1B2	3	3,4171	3,4171
A3B3	3	3,4621	3,4621
A2B3	3	3,5021	3,5021
A1B3	3	3,5032	3,5032
A4B2	3	3,5469	3,5469
A4B1	3	3,5923	3,5923
A4B3	3		4,0809
Sig.		,178	,135

Tabel Lampiran 2. Rata-rata jumlah tangkapan *S. frugiperda* pengamatan ke-1

Jenis tanaman penutup	Konsentrasi Pestisida nabati	Ulangan			Total	Rata-rata
		I	II	III		
A1	B1	0	7	0	7	2,33
	B2	5	4	0	9	3,00
	B0/ Kontrol	3	3	4	10	3,33
A2	B1	4	6	0	10	3,33
	B2	5	5	0	10	3,33
	B0/ Kontrol	3	5	2	10	3,33
A3	B1	3	3	2	8	2,67
	B2	4	7	2	13	4,33
	B0/ Kontrol	3	5	2	10	3,33
A0/ Kontrol	B1	4	9	4	17	5,67
	B2	9	7	5	21	7,00
	B0/ Kontrol	5	6	4	15	5,00

Tabel Lampiran 2a. Hasil transformasi rata-rata jumlah tangkapan *S. frugiperda* pengamatan ke-1

Jenis tanaman penutup	Konsentrasi Pestisida nabati	Ulangan			Total	Rata-rata
		I	II	III		
A1	B1	0,71	2,74	0,71	4,15	1,38
	B2	2,35	2,12	0,71	5,17	1,72
	B0/ Kontrol	1,87	1,87	2,12	5,86	1,95
A2	B1	2,12	2,55	0,71	5,38	1,79
	B2	2,35	2,35	0,71	5,40	1,80
	B0/ Kontrol	1,87	2,35	1,58	5,80	1,93
A3	B1	1,87	1,87	1,58	5,32	1,77
	B2	2,12	2,74	1,58	6,44	2,15
	B0/ Kontrol	1,87	2,35	1,58	5,80	1,93
A0/ Kontrol	B1	2,12	3,08	2,12	7,32	2,44
	B2	3,08	2,74	2,35	8,17	2,72
	B0/ Kontrol	2,35	2,55	2,12	7,02	2,34

Hasil transformasi ($\sqrt{x}$ + 0,5)

Tabel Lampiran 2b. ANOVA rata-rata jumlah tangkapan *S. frugiperda* pengamatan ke-1

Tests of Between-Subjects Effects

Dependent Variable: Populasi_S.frugiperda_1

Source		Type III Sum of Squares	df	Mean Square	F	Sig.
Intercept	Hypothesis	143,441	1	143,441	51,980	,019
	Error	5,519	2	2,760[a]		
JENIS_INTERCROPPING	Hypothesis	3,373	3	1,124	5,152	,008
	Error	4,801	22	,218[b]		
KONSENTRASI_PESNAB	Hypothesis	,415	2	,207	,950	,402
	Error	4,801	22	,218[b]		
BLOK	Hypothesis	5,519	2	2,760	12,644	,000
	Error	4,801	22	,218[b]		
JENIS_INTERCROPPING * KONSENTRASI_PESNAB	Hypothesis	,558	6	,093	,426	,854
	Error	4,801	22	,218[b]		

a. MS(BLOK)

b. MS(Error)

ANOVA

Populasi_S.frugiperda_1

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	4,345	11	,395	,919	,539
Within Groups	10,320	24	,430		
Total	14,666	35			

Tabel Lampiran 2c. Uji lanjut Duncan rata-rata jumlah tangkapan *S. frugiperda* pengamatan ke-1

Duncan[a,b]

JENIS_INTERCROPPING	N	Subset 1	Subset 2
A1	9	1,6889	
A2	9	1,8433	
A3	9	1,9511	
A4	9		2,5011
Sig.		,273	1,000

Duncan[a,b]

KONSENTRASI_PESNAB	N	Subset 1
B1	12	1,8483
B3	12	2,0400
B2	12	2,1000
Sig.		,225

Populasi_S.frugiperda_1

Duncan[a]

		Subset for alpha = 0.05	
INTERAKSI	N	1	2
A1B1	3	1,3867	
A1B2	3	1,7267	1,7267
A3B1	3	1,7733	1,7733
A2B1	3	1,7933	1,7933
A2B2	3	1,8033	1,8033
A2B3	3	1,9333	1,9333
A3B3	3	1,9333	1,9333
A1B3	3	1,9533	1,9533
A3B2	3	2,1467	2,1467
A4B3	3	2,3400	2,3400
A4B1	3	2,4400	2,4400
A4B2	3		2,7233
Sig.		,105	,124

Tabel Lampiran 3. Rata-rata jumlah tangkapan *S. frugiperda* pengamatan ke-2

Jenis tanaman penutup	Konsentrasi Pestisida nabati	Ulangan			Total	Rata-rata
		I	II	III		
	B1	9	6	2	17	5,67
A1	B2	7	1	2	10	3,33
	B0/ Kontrol	4	4	3	11	3,67
	B1	6	3	5	14	4,67
A2	B2	2	3	2	7	2,33
	B0/ Kontrol	2	3	4	9	3,00
	B1	5	4	5	14	4,67
A3	B2	3	5	4	12	4,00
	B0/ Kontrol	5	3	4	12	4,00
	B1	6	4	3	13	4,33
A0/ Kontrol	B2	3	4	2	9	3,00
	B0/ Kontrol	4	3	2	9	3,00

Tabel Lampiran 3a. Hasil transformasi rata-rata jumlah tangkapan *S. frugiperda* pengamatan ke-2

Jenis tanaman penutup	Konsentrasi Pestisida nabati	Ulangan			Total	Rata-rata
		I	II	III		
	B1	3,08	2,55	1,58	7,21	2,40
A1	B2	2,74	1,22	1,58	5,54	1,85
	B0/ Kontrol	2,12	2,12	1,87	6,11	2,04
	B1	2,55	1,87	2,35	6,77	2,26
A2	B2	1,58	1,87	1,58	5,03	1,68
	B0/ Kontrol	1,58	1,87	2,12	5,57	1,86
	B1	2,35	2,12	2,35	6,81	2,27
A3	B2	1,87	2,35	2,12	6,34	2,11
	B0/ Kontrol	2,35	1,87	2,12	6,34	2,11
	B1	2,55	2,12	1,87	6,54	2,18
A0/ Kontrol	B2	1,87	2,12	1,58	5,57	1,86
	B0/ Kontrol	2,12	1,87	1,58	5,57	1,86

Hasil transformasi ($\sqrt{x} + 0,5$)

Tabel Lampiran 3b. ANOVA rata-rata jumlah tangkapan *S. frugiperda* pengamatan ke-2

Tests of Between-Subjects Effects

Dependent Variable: Populasi_S.frugiperda_2

Source		Type III Sum of Squares	df	Mean Square	F	Sig.
Intercept	Hypothesis	149,695	1	149,695	415,464	,002
	Error	,721	2	,360[a]		
JENIS_INTERCROPPING	Hypothesis	,332	3	,111	,979	,417
	Error	3,170	28	,113[b]		
KONSENTRASI_PESNAB	Hypothesis	1,081	2	,540	4,774	,016
	Error	3,170	28	,113[b]		
BLOK	Hypothesis	,721	2	,360	3,183	,057
	Error	3,170	28	,113[b]		

a. MS(BLOK)

b. MS(Error)

ANOVA

Populasi_S.frugiperda_2

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	1,602	11	,146	,944	,518
Within Groups	3,702	24	,154		
Total	5,304	35			

Tabel Lampiran 3c. Uji lanjut Duncan rata-rata jumlah tangkapan *S. frugiperda* pengamatan ke-2

Populasi_S.frugiperda_2

Duncan[a,b]

JENIS_INTERCROPPING	N	Subset 1
A2	9	1,9300
A4	9	1,9644
A1	9	2,0956
A3	9	2,1667
Sig.		,183

Populasi_S.frugiperda_2

Duncan[a,b]

KONSENTRASI_PESNAB	N	Subset 1	2
B2	12	1,8733	
B3	12	1,9658	
B1	12		2,2783
Sig.		,506	1,000

Populasi_S.frugiperda_2

Duncan[a]

INTERAKSI	N	Subset for alpha = 0.05 1
A2B2	3	1,6767
A1B2	3	1,8467
A2B3	3	1,8567
A4B2	3	1,8567
A4B3	3	1,8567
A1B3	3	2,0367
A3B2	3	2,1133
A3B3	3	2,1133
A4B1	3	2,1800
A2B1	3	2,2567
A3B1	3	2,2733
A1B1	3	2,4033
Sig.		,065

Tabel Lampiran 4. Rata-rata jumlah tangkapan *S. frugiperda* pengamatan ke-3

Jenis tanaman penutup	Konsentrasi Pestisida nabati	Ulangan			Total	Rata-rata
		I	II	III		
A1	B1	1	2	0	3	1,00
	B2	2	3	1	6	2,00
	B0/ Kontrol	2	2	3	7	2,33
A2	B1	2	3	1	6	2,00
	B2	2	1	3	6	2,00
	B0/ Kontrol	2	2	3	7	2,33
A3	B1	3	2	2	7	2,33
	B2	3	2	3	8	2,67
	B0/ Kontrol	2	2	3	7	2,33
A0/ Kontrol	B1	2	1	2	5	1,67
	B2	2	1	2	5	1,67
	B0/ Kontrol	2	4	4	10	3,33

Tabel Lampiran 4a. Hasil transformasi rata-rata jumlah tangkapan *S. frugiperda* pengamatan ke-3

Jenis tanaman penutup	Konsentrasi Pestisida nabati	Ulangan			Total	Rata-rata
		I	II	III		
A1	B1	1,22	1,58	0,71	3,51	1,17
	B2	1,58	1,87	1,22	4,68	1,56
	B0/ Kontrol	1,58	1,58	1,87	5,03	1,68
A2	B1	1,58	1,87	1,22	4,68	1,56
	B2	1,58	1,22	1,87	4,68	1,56
	B0/ Kontrol	1,58	1,58	1,87	5,03	1,68
A3	B1	1,87	1,58	1,58	5,03	1,68
	B2	1,87	1,58	1,87	5,32	1,77
	B0/ Kontrol	1,58	1,58	1,87	5,03	1,68
A0/ Kontrol	B1	1,58	1,22	1,58	4,39	1,46
	B2	1,58	1,22	1,58	4,39	1,46
	B0/ Kontrol	1,58	2,12	2,12	5,82	1,94

Hasil transformasi ($\sqrt{x} + 0,5$)

Tabel Lampiran 4b. ANOVA rata-rata jumlah tangkapan *S. frugiperda* pengamatan ke-3

Tests of Between-Subjects Effects

Dependent Variable: Populasi_S.frugiperda_3

Source		Type III Sum of Squares	df	Mean Square	F	Sig.
Intercept	Hypothesis	91,968	1	91,968	34062,259	,000
	Error	,005	2	,003[a]		
JENIS_INTERCROPPING	Hypothesis	,268	3	,089	1,174	,337
	Error	2,128	28	,076[b]		
KONSENTRASI_PESNAB	Hypothesis	,462	2	,231	3,038	,064
	Error	2,128	28	,076[b]		
BLOK	Hypothesis	,005	2	,003	,036	,965
	Error	2,128	28	,076[b]		

a. MS(BLOK)

b. MS(Error)

ANOVA

Populasi_S.frugiperda_3

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	1,197	11	,109	1,567	,172
Within Groups	1,666	24	,069		
Total	2,863	35			

Tabel Lampiran 4c. Uji lanjut Duncan rata-rata jumlah tangkapan *S. frugiperda* pengamatan ke-3

Populasi_S.frugiperda_3

Duncan[a,b]

JENIS_INTERCROPPING	N	Subset 1
A1	9	1,4678
A2	9	1,5967
A4	9	1,6200
A3	9	1,7089
Sig.		,100

Populasi_S.frugiperda_3

Duncan[a,b]

KONSENTRASI_PESNAB	N	Subset 1	2
B1	12	1,4658	
B2	12	1,5867	1,5867
B3	12		1,7425
Sig.		,292	,177

Populasi_S.frugiperda_3

Duncan[a]

		Subset for alpha = 0.05	
INTERAKSI	N	1	2
A1B1	3	1,1700	
A4B1	3	1,4600	1,4600
A4B2	3	1,4600	1,4600
A1B2	3	1,5567	1,5567
A2B1	3	1,5567	1,5567
A2B2	3	1,5567	1,5567
A1B3	3	1,6767	1,6767
A2B3	3	1,6767	1,6767
A3B1	3	1,6767	1,6767
A3B3	3	1,6767	1,6767
A3B2	3		1,7733
A4B3	3		1,9400
Sig.		,054	,068

Tabel Lampiran 5. Rata-rata jumlah tangkapan *S. frugiperda* pengamatan ke-4

Jenis tanaman penutup	Konsentrasi Pestisida nabati	Ulangan			Total	Rata-rata
		I	II	III		
	B1	0	1	0	1	0,33
A1	B2	2	2	3	7	2,33
	B0/ Kontrol	1	2	3	6	2,00
	B1	1	1	0	2	0,67
A2	B2	3	1	2	6	2,00
	B0/ Kontrol	3	3	1	7	2,33
	B1	1	1	1	3	1,00
A3	B2	0	1	0	1	0,33
	B0/ Kontrol	0	2	2	4	1,33
	B1	2	1	1	4	1,33
A0/ Kontrol	B2	1	1	1	3	1,00
	B0/ Kontrol	4	2	4	10	3,33

Tabel Lampiran 5a. Hasil transformasi rata-rata jumlah tangkapan *S. frugiperda* pengamatan ke-4

Jenis tanaman penutup	Konsentrasi Pestisida nabati	Ulangan			Total	Rata-rata
		I	II	III		
	B1	0,71	1,22	0,71	2,64	0,88
A1	B2	1,58	1,58	1,87	5,03	1,68
	B0/ Kontrol	1,22	1,58	1,87	4,68	1,56
	B1	1,22	1,22	0,71	3,16	1,05
A2	B2	1,87	1,22	1,58	4,68	1,56
	B0/ Kontrol	1,87	1,87	1,22	4,97	1,66
	B1	1,22	1,22	1,22	3,67	1,22
A3	B2	0,71	1,22	0,71	2,64	0,88
	B0/ Kontrol	0,71	1,58	1,58	3,87	1,29
	B1	1,58	1,22	1,22	4,03	1,34
A0/ Kontrol	B2	1,22	1,22	1,22	3,67	1,22
	B0/ Kontrol	2,12	1,58	2,12	5,82	1,94

Hasil transformasi ($\sqrt{x} + 0,5$)

Tabel Lampiran 5b. ANOVA rata-rata jumlah tangkapan *S. frugiperda* pengamatan ke-4

Tests of Between-Subjects Effects

Dependent Variable: Populasi_S.frugiperda_4

Source		Type III Sum of Squares	df	Mean Square	F	Sig.
Intercept	Hypothesis	66,124	1	66,124	4858,090	,000
	Error	,027	2	,014[a]		
JENIS_INTERCROPPING	Hypothesis	,685	3	,228	1,815	,167
	Error	3,524	28	,126[b]		
KONSENTRASI_PESNAB	Hypothesis	1,435	2	,717	5,699	,008
	Error	3,524	28	,126[b]		
BLOK	Hypothesis	,027	2	,014	,108	,898
	Error	3,524	28	,126[b]		

a. MS(BLOK)

b. MS(Error)

ANOVA

Populasi_S.frugiperda_4

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	3,604	11	,328	3,803	,003
Within Groups	2,067	24	,086		
Total	5,671	35			

Tabel Lampiran 5c. Uji lanjut Duncan rata-rata jumlah tangkapan *S. frugiperda* pengamatan ke-4

Populasi_S.frugiperda_4

Duncan[a,b]

JENIS_INTERCROPPING	N	Subset 1
A3	9	1,1300
A1	9	1,3711
A2	9	1,4200
A4	9	1,5000
Sig.		,051

Populasi_S.frugiperda_4

Duncan[a,b]

KONSENTRASI_PESNAB	N	Subset 1	2
B1	12	1,1225	
B2	12	1,3333	1,3333
B3	12		1,6100
Sig.		,157	,066

Populasi_S.frugiperda_4

Duncan[a]

INTERAKSI	N	Subset for alpha = 0.05 1	2	3	4
A1B1	3	,8800			
A3B2	3	,8800			
A2B1	3	1,0500	1,0500		
A3B1	3	1,2200	1,2200	1,2200	
A4B2	3	1,2200	1,2200	1,2200	
A3B3	3	1,2900	1,2900	1,2900	
A4B1	3	1,3400	1,3400	1,3400	
A1B3	3		1,5567	1,5567	1,5567
A2B2	3		1,5567	1,5567	1,5567
A2B3	3			1,6533	1,6533
A1B2	3			1,6767	1,6767
A4B3	3				1,9400
Sig.		,105	,076	,111	,164

Tabel Lampiran 6. Rata-rata jumlah tangkapan *S. frugiperda* pengamatan ke-5

Jenis tanaman penutup	Konsentrasi Pestisida nabati	Ulangan			Total	Rata-rata
		I	II	III		
	B1	0	0	0	0	0,00
A1	B2	0	2	1	3	1,00
	B0/ Kontrol	0	1	1	2	0,67
	B1	1	0	0	1	0,33
A2	B2	1	1	1	3	1,00
	B0/ Kontrol	1	1	1	3	1,00
	B1	0	0	0	0	0,00
A3	B2	0	0	0	0	0,00
	B0/ Kontrol	1	0	2	3	1,00
	B1	0	0	0	0	0,00
A0/ Kontrol	B2	0	0	0	0	0,00
	B0/ Kontrol	2	1	1	4	1,33

Tabel Lampiran 6a. Hasil transformasi rata-rata jumlah tangkapan *S. frugiperda* pengamatan ke-5

Jenis tanaman penutup	Konsentrasi Pestisida nabati	Ulangan			Total	Rata-rata
		I	II	III		
	B1	0,71	0,71	0,71	2,12	0,71
A1	B2	0,71	1,58	1,22	3,51	1,17
	B0/ Kontrol	0,71	1,22	1,22	3,16	1,05
	B1	1,22	0,71	0,71	2,64	0,88
A2	B2	1,22	1,22	1,22	3,67	1,22
	B0/ Kontrol	1,22	1,22	1,22	3,67	1,22
	B1	0,71	0,71	0,71	2,12	0,71
A3	B2	0,71	0,71	0,71	2,12	0,71
	B0/ Kontrol	1,22	0,71	1,58	3,51	1,17
	B1	0,71	0,71	0,71	2,12	0,71
A0/ Kontrol	B2	0,71	0,71	0,71	2,12	0,71
	B0/ Kontrol	1,58	1,22	1,22	4,03	1,34

Hasil transformasi ($\sqrt{x} + 0,5$)

Tabel Lampiran 6b. ANOVA rata-rata jumlah tangkapan *S. frugiperda* pengamatan ke-5

Tests of Between-Subjects Effects

Dependent Variable: Populasi_S.frugiperda_5

Source		Type III Sum of Squares	df	Mean Square	F	Sig.
Intercept	Hypothesis	33,640	1	33,640	4656,055	,000
	Error	,014	2	,007[a]		
JENIS_INTERCROPPING	Hypothesis	,293	3	,098	1,524	,230
	Error	1,795	28	,064[b]		
KONSENTRASI_PESNAB	Hypothesis	1,178	2	,589	9,194	,001
	Error	1,795	28	,064[b]		
BLOK	Hypothesis	,014	2	,007	,113	,894
	Error	1,795	28	,064[b]		

a. MS(BLOK)

b. MS(Error)

ANOVA

Populasi_S.frugiperda_5

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	2,083	11	,189	3,794	,003
Within Groups	1,198	24	,050		
Total	3,280	35			

Tabel Lampiran 6c. Uji lanjut Duncan rata-rata jumlah tangkapan *S. frugiperda* pengamatan ke-5

Populasi_S.frugiperda_5

Duncan[a,b]

JENIS_INTERCROPPING	N	Subset 1
A3	9	,8633
A4	9	,9200
A1	9	,9767
A2	9	1,1067
Sig.		,071

Populasi_S.frugiperda_5

Duncan[a,b]

KONSENTRASI_PESNAB	N	Subset 1	2
B1	12	,7525	
B2	12	,9525	
B3	12		1,1950
Sig.		,063	1,000

Populasi_S.frugiperda_5

Duncan[a]

INTERAKSI	N	Subset for alpha = 0.05 1	2	3
A1B1	3	,7100		
A3B1	3	,7100		
A3B2	3	,7100		
A4B1	3	,7100		
A4B2	3	,7100		
A2B1	3	,8800	,8800	
A1B3	3	1,0500	1,0500	1,0500
A1B2	3		1,1700	1,1700
A3B3	3		1,1700	1,1700
A2B2	3		1,2200	1,2200
A2B3	3		1,2200	1,2200
A4B3	3			1,3400
Sig.		,115	,112	,173

Tabel Lampiran 7. Rata-rata jumlah tangkapan *S. frugiperda* pengamatan ke-6

Jenis tanaman penutup	Konsentrasi Pestisida nabati	Ulangan			Total	Rata-rata
		I	II	III		
	B1	0	0	0	0	0,00
A1	B2	0	1	0	1	0,33
	B0/ Kontrol	0	1	0	1	0,33
	B1	0	0	0	0	0,00
A2	B2	1	0	0	1	0,33
	B0/ Kontrol	0	1	0	1	0,33
	B1	0	0	0	0	0,00
A3	B2	0	0	0	0	0,00
	B0/ Kontrol	0	0	0	0	0,00
	B1	0	0	0	0	0,00
A0/ Kontrol	B2	0	0	0	0	0,00
	B0/ Kontrol	1	0	1	2	0,67

Tabel Lampiran 7a. Hasil transformasi rata-rata jumlah tangkapan *S. frugiperda* pengamatan ke-6

Jenis tanaman penutup	Konsentrasi Pestisida nabati	Ulangan			Total	Rata-rata
		I	II	III		
	B1	0,71	0,71	0,71	2,12	0,71
A1	B2	0,71	1,22	0,71	2,64	0,88
	B0/ Kontrol	0,71	1,22	0,71	2,64	0,88
	B1	0,71	0,71	0,71	2,12	0,71
A2	B2	1,22	0,71	0,71	2,64	0,88
	B0/ Kontrol	0,71	1,22	0,71	2,64	0,88
	B1	0,71	0,71	0,71	2,12	0,71
A3	B2	0,71	0,71	0,71	2,12	0,71
	B0/ Kontrol	0,71	0,71	0,71	2,12	0,71
	B1	0,71	0,71	0,71	2,12	0,71
A0/ Kontrol	B2	0,71	0,71	0,71	2,12	0,71
	B0/ Kontrol	1,22	0,71	1,22	3,16	1,05

Hasil transformasi ($\sqrt{x} + 0,5$)

Tabel Lampiran 7b. ANOVA rata-rata jumlah tangkapan *S. frugiperda* pengamatan ke-6

Tests of Between-Subjects Effects

Dependent Variable: Populasi_S.frugiperda_6

Source		Type III Sum of Squares	df	Mean Square	F	Sig.
Intercept	Hypothesis	22,753	1	22,753	1049,730	,001
	Error	,043	2	,022[a]		
JENIS_INTERCROPPING	Hypothesis	,087	3	,029	,812	,498
	Error	,997	28	,036[b]		
KONSENTRASI_PESNAB	Hypothesis	,173	2	,087	2,435	,106
	Error	,997	28	,036[b]		
BLOK	Hypothesis	,043	2	,022	,609	,551
	Error	,997	28	,036[b]		

a. MS(BLOK)

b. MS(Error)

ANOVA

Populasi_S.frugiperda_6

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	,433	11	,039	1,091	,408
Within Groups	,867	24	,036		
Total	1,301	35			

Tabel Lampiran 7c. Uji lanjut Duncan rata-rata jumlah tangkapan *S. frugiperda* pengamatan ke-6

Populasi_S.frugiperda_6

Duncan[a,b]

JENIS_INTERCROPPING	N	Subset 1
A3	9	,7100
A1	9	,8233
A2	9	,8233
A4	9	,8233
Sig.		,255

Populasi_S.frugiperda_6

Duncan[a,b]

KONSENTRASI_PESNAB	N	Subset 1	2
B1	12	,7100	
B2	12	,7950	,7950
B3	12		,8800
Sig.		,279	,279

Populasi_S.frugiperda_6

Duncan[a]

INTERAKSI	N	Subset for alpha = 0.05 1
A4B3	3	,3333
A1B2	3	,6667
A1B3	3	,6667
A2B2	3	,6667
A2B3	3	,6667
A1B1	3	1,0000
A2B1	3	1,0000
A3B1	3	1,0000
A3B2	3	1,0000
A3B3	3	1,0000
A4B1	3	1,0000
A4B2	3	1,0000
Sig.		,074

Tabel Lampiran 8. Rata-rata intensitas *S. frugiperda* selama 8 kali pengamatan

Jenis tanaman penutup	Konsentrasi Pestisida nabati	Ulangan			Total	Rata-rata
		I	II	III		
A1	B1	17,40	17,38	8,23	43,01	14,34
	B2	21,49	27,78	13,26	62,53	20,84
	B0/ Kontrol	25,04	21,18	17,29	63,51	21,17
A2	B1	25,59	32,50	17,57	75,66	25,22
	B2	28,61	28,75	6,08	63,44	21,15
	B0/ Kontrol	26,73	28,34	18,86	73,93	24,64
A3	B1	30,18	17,57	25,77	73,51	24,50
	B2	26,86	27,45	26,89	81,19	27,06
	B0/ Kontrol	33,32	26,81	26,03	86,16	28,72
A0/ Kontrol	B1	25,11	35,80	28,61	89,52	29,84
	B2	24,83	38,93	30,06	93,81	31,27
	B0/ Kontrol	42,22	48,68	40,28	131,18	43,73
Petani		44,80	51,44	45,51	141,76	47,25

Tabel Lampiran 8a. ANOVA rata-rata intensitas *S. frugiperda* selama 8 kali pengamatan

Tests of Between-Subjects Effects

Dependent Variable: INTENSITAS_SERANGAN

Source		Type III Sum of Squares	df	Mean Square	F	Sig.
Intercept	Hypothesis	25860,928	1	25860,928	187,736	,005
	Error	275,504	2	137,752[a]		
JENIS_INTERCROPPING	Hypothesis	688,955	3	229,652	7,562	,001
	Error	850,372	28	30,370[b]		
KONSENTRASI_PESNAB	Hypothesis	944,656	2	472,328	15,552	,000
	Error	850,372	28	30,370[b]		
BLOK	Hypothesis	275,504	2	137,752	4,536	,020
	Error	850,372	28	30,370[b]		

ANOVA

INTENSITAS_SERANGAN

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	1799,968	11	163,633	4,093	,002
Within Groups	959,519	24	39,980		
Total	2759,487	35			

Tabel Lampiran 8b. Uji lanjut Duncan rata-rata intensitas *S. frugiperda* selama 8 kali pengamatan

INTENSITAS_SERANGAN

Duncan[a,b]

JENIS_INTERCROPPI		Subset	
NG	N	1	2
A1	9	21,4011	
A3	9	25,6500	
A2	9	26,5733	
A4	9		33,5844
Sig.		,069	1,000

INTENSITAS_SERANGAN

Duncan[a,b]

KONSENTRASI_PESN		Subset	
AB	N	1	2
B1	12	21,5475	
B2	12	25,1108	
B3	12		33,7483
Sig.		,124	1,000

INTENSITAS_SERANGAN

Duncan[a]

		Subset for alpha = 0.05		
INTERAKSI	N	1	2	3
A1B1	3	14,3367		
A2B1	3	20,8433	20,8433	
A1B2	3	21,1467	21,1467	
A3B1	3	21,1700	21,1700	
A3B2	3	24,5067	24,5067	
A4B2	3		27,1867	
A2B2	3		27,6033	
A1B3	3		28,7200	
A4B1	3		29,8400	
A2B3	3		31,2733	
A3B3	3		31,2733	
A4B3	3			43,7267
Sig.		,089	,095	1,000

Tabel Lampiran 9. Rata-rata intensitas *S. frugiperda* setiap pengamatan selama 8 kali pengamatan

Perlakuan	Persentase Intensitas serangan (HST)								Rata-rata	Kriteria penilaian
	14	21	28	35	42	49	56	63		
A1B1	0,46	7,87	15,85	17,36	18,29	18,29	18,29	18,29	14,34	Ringan
A2B1	1,20	14,07	23,24	25,65	25,65	25,65	25,65	25,65	20,84	Ringan
A3B1	0,46	16,11	24,07	25,74	25,74	25,74	25,74	25,74	21,17	Ringan
A0B1	2,31	17,78	30,28	30,28	30,28	30,28	30,28	30,28	25,22	Sedang
A1B2	1,11	14,72	25,56	25,56	25,56	25,56	25,56	25,56	21,15	Ringan
A2B2	3,24	19,17	29,12	29,12	29,12	29,12	29,12	29,12	24,64	Ringan
A3B2	1,39	20,09	28,70	29,17	29,17	29,17	29,17	29,17	24,50	Ringan
A0B2	2,69	17,76	25,26	30,28	35,13	35,13	35,13	35,13	27,06	Sedang
A1B0	5,65	19,99	27,69	34,51	35,48	35,48	35,48	35,48	28,72	Sedang
A2B0	3,43	20,37	31,57	36,67	36,67	36,67	36,67	36,67	29,84	Sedang
A3B0	4,08	24,54	32,24	36,78	38,13	38,13	38,13	38,13	31,27	Sedang
A0B0	3,98	25,23	48,30	53,33	53,33	53,33	53,33	53,33	43,02	Sedang
Petani	5,55	30,25	53,33	55,60	58,32	58,32	58,32	58,32	47,25	Sedang

Tabel Lampiran 10. Hasil produksi tanaman jagung setiap perlakuan

Jenis tanaman penutup	Konsentrasi Pestisida nabati	Ulangan			Total	Rata-rata
		I	II	III		
	B1	4,70	4,90	4,60	14,20	4,73
A1	B2	4,10	4,50	4,00	12,60	4,20
	B0/ Kontrol	4,20	3,60	4,00	11,80	3,93
	B1	3,30	3,60	4,10	11,00	3,67
A2	B2	4,60	4,50	4,40	13,50	4,50
	B0/ Kontrol	3,10	4,20	4,60	11,90	3,97
	B1	3,60	3,70	3,90	11,20	3,73
A3	B2	3,60	4,10	4,10	11,80	3,93
	B0/ Kontrol	3,70	3,80	3,90	11,40	3,80
	B1	3,30	3,60	4,10	11,00	3,67
A0/ Kontrol	B2	3,60	4,10	4,10	11,80	3,93
	B0/ Kontrol	3,30	3,40	3,50	10,20	3,40
Petani		3,20	3,00	3,10	9,30	3,10

Tabel Lampiran 11. Rata-rata jumlah tangkapan predator selama 8 kali pengamatan

Jenis tanaman penutup	Konsentrasi Pestisida nabati	Ulangan			Total	Rata-rata
		I	II	III		
	B1	265	229	240	734	244,7
A1	B2	253	207	216	676	225,3
	B0/ Kontrol	190	146	145	481	160,3
	B1	170	158	139	467	155,7
A2	B2	154	152	150	456	152,0
	B0/ Kontrol	141	134	130	405	135,0
	B1	160	142	113	415	138,3
A3	B2	157	145	119	421	140,3
	B0/ Kontrol	119	113	107	339	113,0
	B1	101	89	62	252	84,0
A0/ Kontrol	B2	84	76	76	236	78,7
	B0/ Kontrol	68	76	81	225	75,0
Petani		36	42	25	103	34,3

Tabel Lampiran 11a. Anova rata-rata jumlah tangkapan predator selama 8 kali pengamatan

Tests of Between-Subjects Effects

Dependent Variable: POPULASI_PREDATOR

Source		Type III Sum of Squares	df	Mean Square	F	Sig.
Intercept	Hypothesis	757770,250	1	757770,250	508,372	,002
	Error	2981,167	2	1490,583[a]		
JENIS_INTERCROPPING	Hypothesis	67334,528	3	22444,843	61,747	,000
	Error	10177,889	28	363,496[b]		
KONSENTRASI_PESNAB	Hypothesis	9331,167	2	4665,583	12,835	,000
	Error	10177,889	28	363,496[b]		
BLOK	Hypothesis	2981,167	2	1490,583	4,101	,027
	Error	10177,889	28	363,496[b]		

ANOVA

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	82936,083	11	7539,644	26,268	,000
Within Groups	6888,667	24	287,028		
Total	89824,750	35			

Tabel Lampiran 11b. Uji lanjut Duncan rata-rata jumlah tangkapan predator selama 8 kali pengamatan

POPULASI_PREDATOR

Duncan[a,b]

JENIS_INTERCROPPING	N	Subset 1	2	3	4
A4	9	90,1111			
A3	9		130,5556		
A2	9			149,5556	
A1	9				210,1111
Sig.		1,000	1,000	1,000	1,000

POPULASI_PREDATOR

Duncan[a,b]

KONSENTRASI_PESN AB	N	Subset 1	2
B3	12	122,3333	
B1	12		155,6667
B2	12		157,2500
Sig.		1,000	,840

POPULASI_PREDATOR

Duncan[a]

INTERAKSI	N	Subset for alpha = 0.05 1	2	3	4	5
A4B3	3	75,0000				
A4B1	3	84,0000	84,0000			
A4B2	3		111,3333	111,3333		
A3B3	3		113,0000	113,0000		
A3B1	3			138,3333	138,3333	
A3B2	3			140,3333	140,3333	
A2B3	3			141,0000	141,0000	
A2B2	3				152,0000	
A2B1	3				155,6667	
A1B3	3				160,3333	
A1B2	3					225,3333
A1B1	3					244,6667
Sig.		,521	,058	,065	,173	,175

Tabel Lampiran 12. Rata-rata jumlah tangkapan polinator selama 8 kali pengamatan

Jenis tanaman penutup	Konsentrasi Pestisida nabati	Ulangan			Total	Rata-rata
		I	II	III		
A1	B1	23	18	25	66	22,00
	B2	32	18	17	67	22,33
	B0/ Kontrol	24	6	5	35	11,67
A2	B1	16	19	17	52	17,33
	B2	15	14	12	41	13,67
	B0/ Kontrol	12	9	11	32	10,67
A3	B1	18	7	14	39	13,00
	B2	14	8	5	27	9,00
	B0/ Kontrol	17	16	10	43	14,33
A0/ Kontrol	B1	2	4	8	14	4,67
	B2	8	7	5	20	6,67
	B0/ Kontrol	8	10	6	24	8,00
Petani		4	0	1	5	1,67

Tabel Lampiran 12a. Anova rata-rata jumlah tangkapan polinator selama 8 kali pengamatan

Dependent Variable: POPULASI_POLINATOR

Source		Type III Sum of Squares	df	Mean Square	F	Sig.
Intercept	Hypothesis	6058,028	1	6058,028	77,309	,013
	Error	156,722	2	78,361[a]		
JENIS_INTERCROPPING	Hypothesis	707,861	3	235,954	9,536	,000
	Error	692,833	28	24,744[b]		
KONSENTRASI_PESNAB	Hypothesis	37,556	2	18,778	,759	,478
	Error	692,833	28	24,744[b]		
BLOK	Hypothesis	156,722	2	78,361	3,167	,058
	Error	692,833	28	24,744[b]		

ANOVA

POPULASI_POLINATOR

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	1024,306	11	93,119	3,916	,003
Within Groups	570,667	24	23,778		
Total	1594,972	35			

Tabel Lampiran 12b. Uji lanjut Duncan rata-rata jumlah tangkapan polinator selama 8 kali pengamatan

POPULASI_POLINATOR

Duncan[a,b]

JENIS_INTERCROPPING	N	Subset 1	2	3
A4	9	6,4444		
A3	9		12,1111	
A2	9		14,6667	14,6667
A1	9			18,6667
Sig.		1,000	,285	,099

POPULASI_POLINATOR

Duncan[a,b]

KONSENTRASI_PESNAB	N	Subset 1
B3	12	11,7500
B2	12	12,9167
B1	12	14,2500
Sig.		,255

POPULASI_POLINATOR

Duncan[a]

INTERAKSI	N	Subset for alpha = 0.05 1	2	3	4	5
A4B1	3	4,6667				
A4B2	3	6,6667	6,6667			
A4B3	3	8,0000	8,0000	8,0000		
A3B2	3	9,0000	9,0000	9,0000		
A1B3	3	11,6667	11,6667	11,6667		
A2B3	3	13,0000	13,0000	13,0000	13,0000	
A3B1	3	13,0000	13,0000	13,0000	13,0000	
A2B2	3	13,6667	13,6667	13,6667	13,6667	13,6667
A3B3	3		14,3333	14,3333	14,3333	14,3333
A2B1	3			17,3333	17,3333	17,3333
A1B1	3				22,0000	22,0000
A1B2	3					22,3333
Sig.		,060	,107	,052	,056	,061

Tabel Lampiran 13. Rata-rata jumlah tangkapan parasitoid selama 8 kali pengamatan

Jenis tanaman penutup	Konsentrasi Pestisida nabati	Ulangan			Total	Rata-rata
		I	II	III		
	B1	8	4	11	23	7,67
A1	B2	8	4	3	15	5,00
	B0/ Kontrol	9	2	1	12	4,00
	B1	7	1	3	11	3,67
A2	B2	1	3	4	8	2,67
	B0/ Kontrol	1	3	3	7	2,33
	B1	1	0	2	3	1,00
A3	B2	2	3	2	7	2,33
	B0/ Kontrol	2	2	4	8	2,67
	B1	2	0	1	3	1,00
A0/ Kontrol	B2	0	0	1	1	0,33
	B0/ Kontrol	1	0	0	1	0,33
Petani		0	0	0	0	0,00

Tabel Lampiran 13a. ANOVA rata-rata jumlah tangkapan parasitoid selama 8 kali pengamatan

Tests of Between-Subjects Effects

Dependent Variable: POPULASI_PARASITOID

Source		Type III Sum of Squares	df	Mean Square	F	Sig.
Intercept	Hypothesis	272,250	1	272,250	31,718	,030
	Error	17,167	2	8,583[a]		
JENIS_INTERCROPPING	Hypothesis	119,417	3	39,806	9,472	,000
	Error	117,667	28	4,202[b]		
KONSENTRASI_PESNAB	Hypothesis	6,500	2	3,250	,773	,471
	Error	117,667	28	4,202[b]		
BLOK	Hypothesis	17,167	2	8,583	2,042	,149
	Error	117,667	28	4,202[b]		

ANOVA

POPULASI_PARASITOID

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	149,417	11	13,583	2,928	,013
Within Groups	111,333	24	4,639		
Total	260,750	35			

Tabel Lampiran 13b. Uji lanjut Duncan rata-rata jumlah tangkapan parasitoid selama 8 kali pengamatan

POPULASI_PARASITOID

Duncan[a,b]

JENIS_INTERCROPPING	N	Subset 1	2	3
A4	9	,5556		
A3	9	2,0000	2,0000	
A2	9		2,8889	
A1	9			5,5556
Sig.		,146	,366	1,000

POPULASI_PARASITOID

Duncan[a,b]

KONSENTRASI_PESNAB	N	Subset 1
B3	12	2,3333
B2	12	2,5833
B1	12	3,3333
Sig.		,269

POPULASI_PARASITOID

Duncan[a]

INTERAKSI	N	Subset for alpha = 0.05 1	2	3
A4B2	3	,3333		
A4B3	3	,3333		
A3B1	3	1,0000	1,0000	
A4B1	3	1,0000	1,0000	
A2B3	3	2,3333	2,3333	
A3B2	3	2,3333	2,3333	
A2B2	3	2,6667	2,6667	
A3B3	3	2,6667	2,6667	
A2B1	3	3,6667	3,6667	
A1B3	3	4,0000	4,0000	4,0000
A1B2	3		5,0000	5,0000
A1B1	3			7,6667
Sig.		,086	,061	,059

Tabel Lampiran 14. Analisis regresi intensitas

serangan dengan hasil produksi

Variables Entered/Removed[a]

Model	Variables Entered	Variables Removed	Method
1	Intensitas serangan[b]	.	Enter

a. Dependent Variable: hasil produksi

b. All requested variables entered.

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	,878[a]	,771	,750	,22140

a. Predictors: (Constant), Intensitas serangan

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	1,814	1	1,814	37,002	,000[b]
	Residual	,539	11	,049		
	Total	2,353	12			

a. Dependent Variable: hasil produksi

b. Predictors: (Constant), Intensitas serangan

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	5,113	,204		25,088	,000
	Intensitas serangan	-,043	,007	-,878	-6,083	,000

a. Dependent Variable: hasil produksi

Tabel Lampiran 15. Analisis Regresi Populasi Predator dengan Populasi *S. frugiperda*

Variables Entered/Removed[a]

Model	Variables Entered	Variables Removed	Method
1	Populasi predator[b]	.	Enter

a. Dependent Variable: Populasi S.frugiperda

b. All requested variables entered.

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	,784[a]	,615	,580	,50806

a. Predictors: (Constant), Populasi predator

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	4,528	1	4,528	17,543	,002[b]
	Residual	2,839	11	,258		
	Total	7,368	12			

a. Dependent Variable: Populasi S.frugiperda

b. Predictors: (Constant), Populasi predator

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	6,031	,361		16,689	,000
	Populasi predator	-,010	,002	-,784	-4,188	,002

a. Dependent Variable: Populasi S.frugiperda

Tabel lampiran 16. Analisis Regresi Populasi Predator dengan Intensitas Serangan

Variables Entered/Removed[a]

Model	Variables Entered	Variables Removed	Method
1	Populasi predator[b]	.	Enter

a. Dependent Variable: Intensitas serangan

b. All requested variables entered.

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	,885[a]	,784	,764	4,42049

a. Predictors: (Constant), Populasi predator

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	779,683	1	779,683	39,900	,000[b]
	Residual	214,948	11	19,541		
	Total	994,631	12			

a. Dependent Variable: Intensitas serangan

b. Predictors: (Constant), Populasi predator

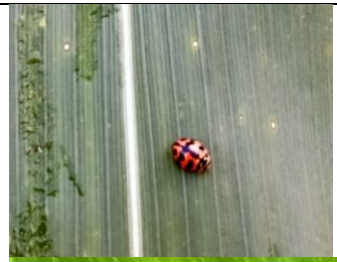
Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	45,969	3,144		14,621	,000
	Populasi predator	-,137	,022	-,885	-6,317	,000

a. Dependent Variable: Intensitas serangan

Tabel Lampiran 17. Hasil identifikasi serangga berguna selama pengamatan

Ordo	**Famili**	**Spesies**	**Nama Indonesia**	**Status**	**Gambar**
Araneidae	Lycosidae	*Lycosa sp*	Laba-laba tanah	predator	
	Tetragnathidae	*Tetragnatha sp*	Laba-laba rahang panjang	predator	
Coleoptera	Staphylinidae	*Paederus fuscipes*	Kumbang tomcat	predator	

Ordo	Famili	Spesies	Nama Indonesia	Status	Gambar
	Coccinellidae	*Cheilomenes sp*	kumbang koksi	predator	 
		Cryptognatha sp	kumbang koksi orange	predator	

Ordo	Famili	Spesies	Nama Indonesia	Status	Gambar
	Cicindelidae	*Cicindela sp*	kumbang harimau	predator	
	Carabidae	*Calosoma sp*	kumbang tanah	predator	
		Ophionea Sp	kumbang tanah leher panjang	predator	

Ordo	**Famili**	**Spesies**	**Nama Indonesia**	**Status**	**Gambar**
Dermaptera	Carcinophoridae	*Euborellia annulipes*	cocopet	predator	
Diptera	Bibionidae	*Plecia amplipennis*	Lalat maret/ love bug	predator	
Hymenoptera	Formicidae	*Dolichoderus sp*	semut hitam	predator, polinator	

Ordo	Famili	Spesies	Nama Indonesia	Status	Gambar
		Oecophylla sp	semut rang-rang	predator	 Sumber: redaksi agrozine
		Formica Sp	semut kayu	predator	
Hemiptera	Miridae	*Deraeocoris sp*	kepik daun	predator	

Ordo	Famili	Spesies	Nama Indonesia	Status	Gambar
		Cyrtorhinus sp	kepik mirid	predator	
	Reduviidae	*Reduviidae Spp*	Kepik pembunuh	Predator	
Orthoptera	Gryllidae	*Acheta Domesticus*	Jangkrik Alam	predator	

Ordo	Famili	Spesies	Nama Indonesia	Status	Gambar
	Blattidae	*Blattella sp*	Kecoak	Predator, Dekomposer	
	Tetrigidae	*Tetrix sp*	belalang kerdil	predator	
Mantodea	Mantidae	*Stagmomantis carolina*	Belalang sembah carolina	predator	

Ordo	Famili	Spesies	Nama Indonesia	Status	Gambar
Odonata	Libellulidae	*Sympetrum Sp*	capung penyaring	predator	
	Aeshnidae	*Macromia sp*	capung loreng	predator	
Hymenoptera	Collectidae	*Hylaeus sp*	lalat lebah leher kuning	polinator	

Ordo	Famili	Spesies	Nama Indonesia	Status	Gambar
Hemiptera	Derbidae	*Proutista moesta*	wereng kelapa sawit	Polinator	
Diptera	Syrphidae	*Eristalis sp*	lalat lebah	polinator, predator	
	Muscidae	*Musca domestica*	lalat rumah	polinator	

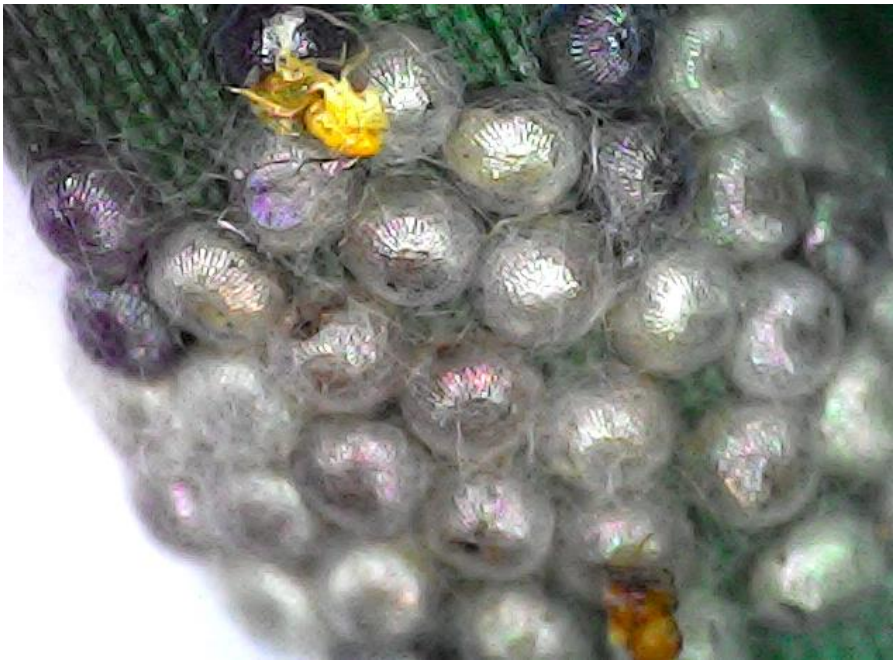
Ordo	Famili	Spesies	Nama Indonesia	Status	Gambar
	Lauxaniidae	*Minettia longipennis*	lalat kecil	polinator	
Diptera	Tachinidae	*Argyrophylax sp*	lalat tachid	parasitoid	
Hymenoptera	Scelionidae	*Telonomus sp*	telonomus	parasitoid	

Gambar lampiran 1. Skor penilaian *Spodoptera frugiperda* pada tanaman jagung

Gambar lampiran 2. Serangan hama pada tanaman barrier

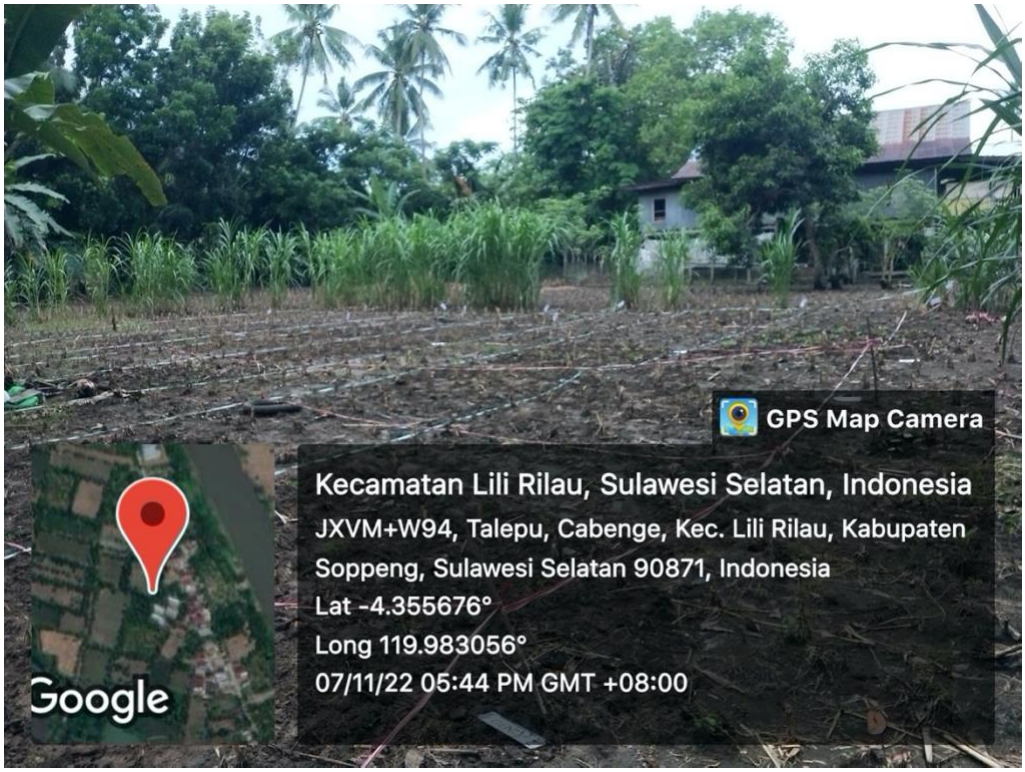
Gambar lampiran 3. Telur *Spodoptera frugiperda* yang menetas menjadi larva

Gambar lampiran 4. Telur *Spodoptera frugiperda* yang terparasit *Telenomus sp*



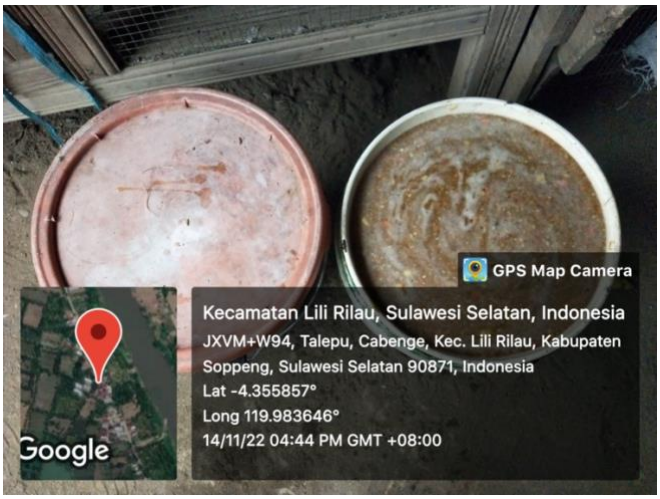
Gambar lampiran 5. Telur *Spodoptera frugiperda* yang terparasit *Trichogramma sp*

Gambar lampiran 6. Kelompok telur *Spodoptera frugiperda*

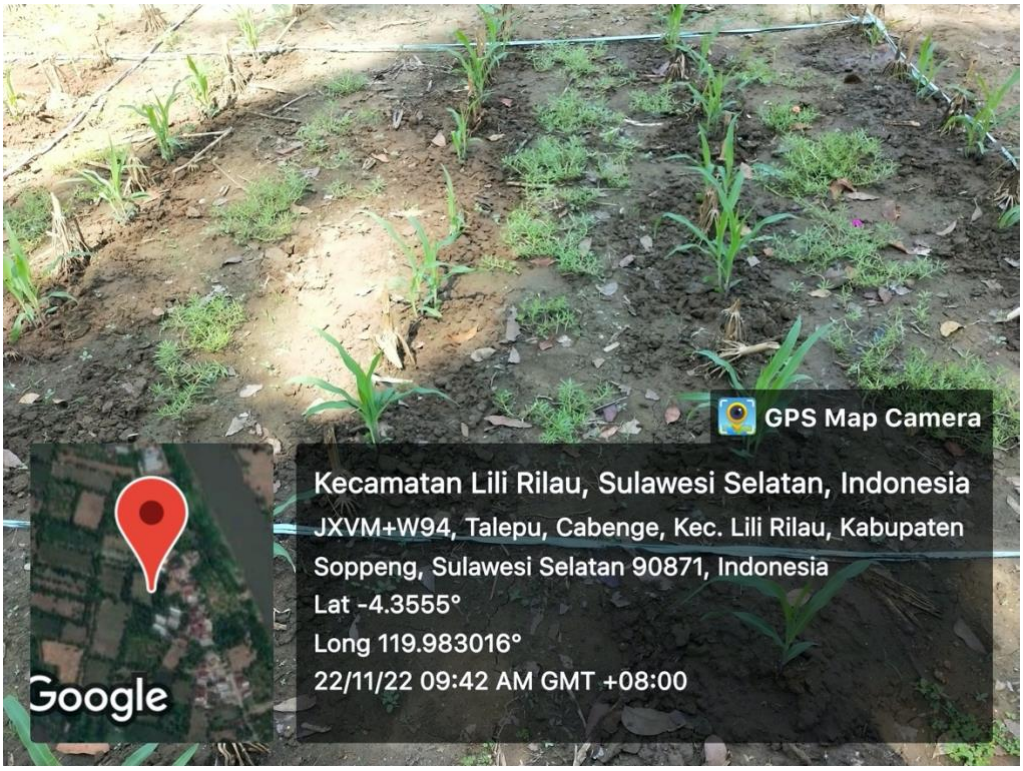


Gambar lampiran 7. Lahan penelitian yang ditanami rumput gajah/ barrier plant

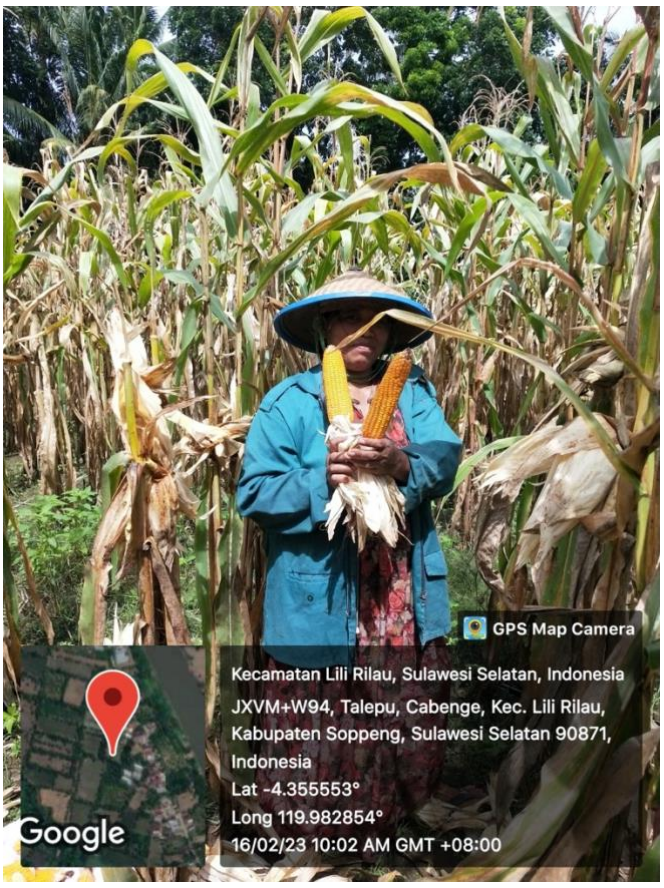
Gambar lampiran 8. Penanaman tanaman jagung



Gambar lampiran 9. Pembuatan MOL



Gambar lampiran 10. Lahan jagung dengan cover crops



Gambar lampiran 11. Panen

Gambar lampiran 12. Metamorfosis *Spodoptera frugiperda*