



DAFTAR PUSTAKA

- Acharya, B. S., Rasmussen, J., and Eriksen, J. 2012. Grassland carbon sequestration and emissions following cultivation in a mixed crop rotation. *Agric. Ecosyst. Environ.* 153: 33–39.
- Al-Snafi AE. 2016. The contents and pharmacology of *Crotalaria juncea* - a review. *IOSR J. Pharm.* 6 (2): 77-86.
- Anjani, B.P.T., Santoso, B.B., dan Sumarjan. 2022. Pertumbuhan dan hasil sawi pakcoy (*Brassica rapa* L.) sistem tanam wadah pada berbagai dosis pupuk kascing. *JIMA*. 1 (1): 1-9.
- AOAC. 2005. Official methods of analysis of the Association of Analytical Chemist. Virginia USA : Association of Official Analytical Chemist, Inc.
- Arnold, M., Gaskill, C., Smith, S. R., and Lacefield, G.D. 2014. Cyanide poisoning in ruminants. *Agric. Nat. Resour.* 168.
- Astuti, D., Suhartanto, B., Suwignyo, B., dan Asyiqin, M.Z. 2019. Pengaruh umur panen dan level pupuk nitrogen terhadap produksi dan kandungan nutrien *Sorghum bicolor* L. varietas numbu. *Agrinova*. 2 (2): 9-16.
- Aulia, F., Erwanto, and Wijaya, A.K. 2017. The effect of cutting age on moisture, ash and crude fat *Indigofera zollingeriana*. *JRIP*. 1 (3):1-4.
- Baba, B., Syam'un, E., Riadi, M., and Jayadi, M. 2019. Biomass production and nutrient from *Crotalaria Juncea* L. as green manure in different planting distance and age of harvest. *IJSTR*. 8 (12): 3404-3409.
- Badan Pusat Statistik. 2017. Jumlah Penduduk Yogyakarta 2016. Jakarta.
- Barbosa, I. R., Santana, R. S., Mauad, M., and Garcia, R. A. 2020. Dry matter production and nitrogen, phosphorus and potassium uptake in *Crotalaria juncea* and *Crotalaria spectabilis*. *Trop. Agric.* 50: e61011.
- Berliana, Y., Sihombing, J.M., Khairani, and Wahyudi, E. 2021. Effect of cutting age and dosage of liquid organic fertilizer on King grass (*Pennisetum purpupoides* Schumach) production as a source of animal feed. *AGRINULA*. 4(1): 61-72.
- Bhandari, H. R., Shivakumar, K. V., Kar, C. S., Bera, A., and Meena, J. K.. 2022. Sunn Hemp: a climate-smart crop in developing climate resilient grain and forage legumes. Springer Nature Singapore: 277-296.
- Bundit, A., Ostile, M., and Chanakan, P.U.T. 2021. Sunn hemp (*Crotalaria juncea*) weed suppression and allelopathy at different timings. *Biocontrol. Sci. Technol.* 31 (7): 694-704.



- Cahyani, S., Sudirman, A., dan Azis, A. 2016. Respons pertumbuhan vegetatif tanaman tebu (*Saccharum officinarum L.*) ratoon 1 terhadap pemberian kombinasi pupuk organik dan pupuk anorganik. Jurnal AIP. 4(2): 69-78.
- Cahyawati, P. N., Zahran, I., Jufri, M. I., dan Noviana. 2017. Keracunan akut sianida. Jurnal Lingkungan dan Pembangunan. 1(1): 80-87.
- Capstaff, N.M. and Miller, A.J. 2018. Improving the yield and nutritional quality of forage crops. front. Plant Sci. 9: 535.
- Chattha, M.S., Ali, Q., Haroon, M., Afzal, M.J., Javed, T., Hussain, S., Mahmood, T., Solanki, M.K., Umar, A., Abbas, W., Nasar, S., Lazaro, L.M.S., and Zhou, L. 2022. Enhancement of nitrogen use efficiency through agronomic and molecular based approaches in cotton. Front. Plant Sci. 13: 994306.
- Clarke, M., Harvey, D. and Humphreys, D. 1981. Veterinary toxicology, second edition. ELBS and Bailliers, Tindal. Pp.175-178.
- de Oliveira Miranda N, de Sousa Vanomark GMM, Costa e Melo IG, and Bezerra de Góes G. 2020. Biomass of *Crotalaria juncea* as a function of plant densities in the semiarid region of North eastern Brazil. Agron. Colomb. 38 (1): 148-155.
- Derara, Y., Sori, W., Nebyiu, A., and Mulat, F. 2019. Effect of nitrogen rates on growth and leaf quality of two cassava (*Manihot esculenta crantz*) varieties at jimma, south west ethiopia. Int. J. Curr. Res. Aca. Rev. 7(9): 23-32.
- Djajadi. 2011. *Crotalaria juncea L.* : Tanaman serat untuk pupuk organik dan nematisida nabati. Jurnal Perspektif. 10 (2): 51-57.
- Duke JA. 1983. Sunnhemp, indian hemp, madras hemp, brown hemp, sannhemp source: Handbook of Energy Crops. Unpublished.
- Eberle, C. and Shortnacy, L. 2021. Sunn hemp planting date effect on growth, biomass accumulation, and nutritive value in southeastern Wyoming. J. Crop. Sci. 61: 4447-4457.
- ECHO. 2022. Sunn Hemp. ECHO Plant Information Sheet. USA.
- Ernawati, A., Abdullah, L., Permana, I.G., and Karti, P.D.M.H. 2023. Morphological responses, biomass production and nutrient of *Pennisetum purpureum* cv. Pakchong under different planting patterns and harvesting ages. Biodiversitas. 24 (6): 3439-3447.
- FAO. 2017. Grassland Index. A searchable catalogue of grass and forage legumes. FAO. Rome, Italy.
- Fatmawaty, A.A., Ritawati, S., dan Said, L.N. Pengaruh pemotongan umbi dan pemberian beberapa dosis pupuk NPK majemuk terhadap pertumbuhan dan hasil tanaman bawang merah (*Allium ascalonicum L.*). Agrologia, 4(2): 69-77.



- Firnia, D. 2018. Dynamics of phosphorus elements on each horizon profile of acid soil. *Jur. Agroekotek* 10 (1) : 45-52.
- Fjell, D.L., Blasi, D.A., and Towne, G. 1991. Nitrate and prussic acid toxicity in forage: causes, prevention, and feeding management. Departments of Agronomy and Animal Science. Kansas State University.
- Garzon, J., Vendramini, J.M.B., Silveira, M.L., Moriel, P., da Silva, H.M.S., Dubeux Jr, J.C.B., Kaneko, M., Carnelos, C.C., and Mamede, P.A. 2021. Harvest management and genotype effects on sunn hemp forage characteristics. *Agron J.* 113: 298-307.
- Gelaye, Y., Alemayehu, M., and Ademe, D. 2022. Potato (*Solanum tuberosum L.*) growth and quality as influenced by inorganic fertilizer rates in Northwestern Ethiopia. *Int. J. Agron.* 9476021.
- Gensa, Ufayza. 2019. Review on cyanide poisoning in ruminants. *J. agric. biol.* 9 (6): 1-12.
- Goyal, R. K., Mattoo, A. K., and Schmidt, M. A. 2021. Rhizobial–host interactions and symbiotic nitrogen fixation in legume crops toward agriculture sustainability. *Front. Microbiol.* 12: 669404.
- Gruss, S. M., Johnson, K. D., Ghaste, M., Widhalm, J. R., Johnson, S. K., Holman, J. D., Obour, A., Aiken, R. M., and Tuinstra, M. R. 2023. Dhurrin stability and hydrogen cyanide release in dried sorghum samples. *Field. Crops. Res.* 291.
- Heriyanti, A., Septian, M.H., and Suhendra, D. 2023. Effect of different harvest age on crude protein content, crude fiber, and crude protein production of forage corn fodder given rice wash water as the main nutrient. *JANHUS.* 7 (2): 82-90.
- Heuzé, V., Thiollet, H., Tran, G., and Lebas, F. 2018. Sunn hemp (*Crotalaria juncea*). Feedipedia, a programme by INRAE, CIRAD, AFZ and FAO.
- Hidayah, S.N., Hidayat, R., and Triani, N. 2022. Study of paclobutrazol dosage and seed size on growth and yield of porang (*Amorphophallus onchophyllum P.*). *J. Tek. Pertanian Lampung.* 11 (4): 574-588.
- Hidayat, Y.V., Apriyanto, E., dan Sudjatmiko, S. 2020. Persepsi masyarakat terhadap program percetakan sawah baru di desa air kering Kecamatan Padang Guci Hilir Kabupaten Kaur dan pengaruhnya terhadap lingkungan. *Naturalis.* 9(1): 41-54.
- Infitria dan Khalil. 2014. Study on forage production and quality in pasture of “UPT Peternakan” Andalas University, Padang. *Buletin Makanan Ternak*, 101 (1): 25 – 33.
- Iqbal, A., Dong, Q., Wang, X., Gui, H., Zhang, H., and Zhang, X. 2020. Variations in nitrogen metabolism are closely linked with nitrogen uptake and utilization efficiency in cotton genotypes under various nitrogen supplies. *Plants.* 9: 250.



- Irawan, K. A., Budi, S., dan Suhaili. 2023. Keragaman morfologi pertumbuhan 7 klon dan 2 varietas tanaman tebu (*Saccharum officinarum L.*) di PT Perkebunan Nusantara x Ploso Klaten-Kediri. *Gema Agro*. 28 (1): 42-51.
- Jabran, K., Mahajan, G., Sardana, V., and Chauhan, B. S. 2015. Allelopathy for weed control in agricultural systems. *Crop Prot.* 72: 57–65.
- Jain, M. and Jain, V. 2014. Pharmacognostical, phytochemical, and pharmacological review on *Crotalaria juncea*. *Indian. J. Sci. Res.* 3 (2)
- Jayanegara, A., Ridla, M., Laconi, E. B., dan Nahrowi. 2019. Komponen antinutrisi pada pakan. IPB Press. Bogor.
- Joshi, M. 2015. Textbook of field crops. PHI Learning Pvt Ltd. New Delhi.
- Karthika, N. and R. Kalpana. 2017. HCN content and forage yield of multi-cut forage sorghum under different organic manures and nitrogen levels. *Chem. Sci. Rev. Lett.* 6: 1659-1663.
- Kefyalew, A., Alemu, B., and Tsegaye, A. 2020. Effects of fertilization and harvesting age on yield and quality of desho (*Pennisetum pedicellatum*) grass under irrigation, in Dehana District, Wag Hemra Zone, Ethiopia. *Int. J. Agric. For. Fish.* 9 (4): 113-121.
- Keraf, F. K. dan E. Mulyanti. 2017. Pengaruh pemupukan nitrogen terhadap produksi rumput *Sorghum nitidum* pada umur panen yang berbeda. *J. Sain. Peternak. Indones.* 12 (3): 248-255.
- Keraf, F.K., Nulik, Y., dan Mullik, M.L. 2015. Pengaruh pemupukan nitrogen dan umur tanaman terhadap produksi dan kualitas rumput kume (*Sorghum plumosum var. timorense*). *JPI*. 17 (2):123-130.
- Khajuria, A., dan Kanae, S. 2013. Potential and use of nitrate in agricultural purposes. *JWARP*. 5: 529-533.
- Khan, F., Siddique, A.B., Shabala, S., Zhou, M., and Zhao, C. 2023. Phosphorus plays key roles in regulating plants' physiological responses to abiotic stresses. *Plants*. 12 (15): 2861.
- Knight, A.P. and Walter, R. G. 2002. Plants causing sudden death. in: a guide to plant poisoning of animals in North America. international veterinary information service. Ithaca, New York, USA, pp. 5.
- Krisdianto, A., E. Saptiningsih., Y. Nurchayati., dan N. Setiari. 2020. Pertumbuhan *Plantlet* anggrek *Phalaenopsis amabilis* (L.) Blume pada tahap subkultur dengan perlakuan jenis media dan konsentrasi pepton berbeda. *J. Biol. Sci.* 7 (2): 182-190.
- Kusumaningrum, I., Hastuti, R.B., dan Haryanti, S. 2007. Pengaruh perasan *Sargassum crassifolium* dengan konsentrasi yang berbeda terhadap



- pertumbuhan tanaman kedelai (*Glycine max (L) merill*). Buletin Anatomi dan Fisiologi. 2 (17).
- Lakshmi pathi, R.N., Subramanyam, B., and Narotham Prasad, B.D. 2019. Microorganisms, organic matter recycling and plant health. In: Ansari, R., Mahmood, I. (eds) Plant health under biotic stress. Springer, Singapore.
- Lambers, H. 2022. Phosphorus acquisition and utilization in plants. Annu. Rev. Plant Biol. 73: 17–42.
- Lepcha, Isaac and Naumann, H.D. 2021. Partitioning of forage mass and nutritive value in sunn hemp leaf and stem components. Int. J. Agron: 1-10.
- Li, J., Zhao, X., Maltais-Landry, G., and Paudel, B. R. 2021. Dynamics of soil nitrogen availability following sunn hemp residue incorporation in organic strawberry production systems. HortScience. 56 (2): 138-146.
- Li, Q., Ren, Y., Fu, H., Li, Z., Kong, F., and Yuan, Z. 2022. Cultivar differences in carbon and nitrogen accumulation, balance, and grain yield in maize. Front. Plant Sci.
- Liu, Y., Zhang, M., Li, Y., Zhang, Y., Huang, X., Yang, Y., Zhu, H., Xiong, H., and Jiang T. 2023. Influence of nitrogen fertilizer application on soil acidification characteristics of tea plantations in Karst Areas of Southwest China. Agriculture. 13 (4): 849.
- Liu, Z., Zhu, Y., Li, F., and Jin G. 2017. Non-destructively predicting leaf area, leaf mass and specific leaf area based on a linear mixed-effect model for broadleaf species. Ecol. Indicators. 78: 340–350.
- Lok, S., Fraga, S., and Noda, A. 2013. Biomass bank with *Pennisetum purpureum* cv. CT-115. Its effects on the carbon storage in the soil. Cuban Journal of Agricultural Science. 47(3): 301-304.
- Lucas, R.W., Klaminder, J., Futter, M.N., Bishop, K.H., Egnell, G., Laudon, H., and Hogberg, P. 2011. A meta-analysis of the effects of nitrogen additions on base cations: implications for plants, soils, and streams forest ecology manage. 262: 95–104
- Malik, A.D., Dewa, K.Y.Z.Z., Parikesit, Withaningsih, S., and Wingit, R. 2020. Potentials of carbon stored in plant biomass at little farmers grassland Cisarua, West Bandung Regency. Biosaintifika. 12 (1): 111-118.
- Manuhutu, A, P., Rehatta, H., dan Kailola J. J. G. 2014. Pengaruh konsentrasi pupuk hayati biobost terhadap peningkatan produksi tanaman selada (*Lactuca sativa L.*). Agrologia. 3 (1): 18-27.
- Maryani, A.T. 2012. Pengaruh volume pemberian air terhadap pertumbuhan bibit kelapa sawit di pembibitan utama. Program Studi Agroekoteknologi. Fakultas Pertanian Universitas Jambi Jurnal. 1(2): 64-74.



- McKenzie, R. H., Middleton, A. B., Seward, K. W., Gaudiel, R., Wildschut, C., and Bremer, E. 2001. Fertilizer responses of dry bean in Southern Alberta. Can. J. Plant Sci. 81: 343-350.
- Mus, F., Crook, M. B., Garcia, K., Garcia Costas, A., Geddes, B. A., and Kouri, E. D. 2016. Symbiotic nitrogen fixation and the challenges to its extension to nonlegumes. Appl. Environ. Microbiol. 82: 3698-3710.
- Muscat, J. 2014. Investigating renewable feedstocks such as (*Hibiscus Cannabis* – Kenaf and *Crotalaria juncea* – Sunn Hemp) for generation at Mackay Sugar Limited. SRA Research Project.
- Ngongo, M., Sudita, I.D.N., and Mardewi, N.K. 2021. Effect of planting distance and dosage of chicken manure on production and botanical composition of taiwan elephant grass (*Pennisetum purpureum* cv. Taiwan) at different cutting phases. Agriwar Journal. 1(2): 51-56.
- Nopsagiarti, T., Okalia, D., dan Marlina, G. 2020. Analisis c-organik, nitrogen dan c/n tanah pada lahan agrowisata beken jaya. J. Agrosains teknol. 5(1): 11-18.
- Orji, K.O., Chukwu, L.A., and Ogbu, J.U. 2022. Growth and yield responses of groundnut to different rates of NPK fertilizer at Umudike. Int. J. Agric. Sc. Food. Technol. 8 (1): 072-077.
- Palealu, F.R., M.R. Waani., R.A.V. Tuturoong., dan S.S. Malalantang. 2022. Pengaruh waktu pemanenan sorgum Samurai 1 ratun ke 1 terhadap berat segar, kadar bahan kering, dan protein kasar sebagai pakan ruminansia. Zootec. 42 (1): 68-73.
- Patel. H., Singh, R., Mody, S., Modi, C. and Kamani, S. 2014. Cyanide poisoning in animals. AGRES. 3 (3): 202-216.
- Patti, P.S., Kaya, E., dan Silahooy, Ch. 2013. Analisis status nitrogen tanah dalam kaitannya dengan serapan n oleh tanaman padi sawah di desa Waimital, Kecamatan Kairatu, Kabupaten Seram Bagian Barat. Agrologia. 2(1): 51-58.
- Pereira, N. S., Soares, I., and de Miranda, F. R. 2016 . Decomposition and nutrition release of leguminous green manure species in the Jaguaribe Apodi region, Ceara, Brazil. Cienc, Rural. 46 (6): 970-975.
- Pramitasari, H.E., Wardiyati, T., and Nawawi, M. 2016. The influence of nitrogen fertilizer dosage and plant density level to growth and yield of kailan plants (*Brassica oleraceae* L.). J. Produksi Tanaman. 4(1): 49-56.
- Prasojo, Y.S., Ishigaki, G., Hashiguchi, M., and Akashi, R. 2021. Effect of different growth stages on biomass weight and forage quality of different growth type soybean (*Glycine max*). Asian J. Plant. Sci. 20 (2): 256-262.
- Pratama, A., Afany, M.R., and Kundarto, M. 2023. The influence of organic and semi-organic farming practices on some soil properties on the southern slopes of mount Merapi. JTSI.10 (1): 165-173.



- Pratiwi, P., Marwanto, M., Widodo, W., dan Handajaningsih, M. 2021. Kandungan nitrat daun, pertumbuhan, dan hasil biomassa sawi dan pakcoy pada pemberian pupuk nitrogen anorganik dan kompos azolla secara berimbang. JIPI. 23 (1): 1-8.
- Prayoga, K. I., Fathul, F., dan Liman. 2018. Pengaruh perbedaan umur potong terhadap produktivitas (produksi segar, produksi bahan kering, serta proporsi daun dan batang) hijauan *Indigofera zollingeriana*. JRIP. 2 (1): 1-7.
- Purbajanti, E.D. 2013. Rumput dan legum sebagai hijauan makanan ternak. Graha Ilmu. Yogyakarta.
- Purwanto, R. H., Rohman, A. Maryudi, T. Yuwono, D. B. Permadi, dan M. Sanjaya. 2012. Potensi biomasa dan simpanan karbon jenis-jenis tanaman berkayu di hutan rakyat Desa Nglangeran, Gunungkidul, Daerah Istimewa Yogyakarta. Jurnal Ilmu Kehutanan. 6 (2) : 128-141.
- Pushpa, K., Madhu, P., and Venkatesh, B.B. 2019. Estimation of HCN content in sorghum under irrigated and stressed conditions. JPP. 8 (3): 2583-2585.
- Puteri, R.E., Karti, P.D.M.H., Abdullah, L., and Supriyanto. 2015. Productivity and nutrient quality of some sorghum mutant lines at different cutting ages. Media Peternakan. 38: 132-137.
- Putra, I.A. 2015. Batas kritis kalium untuk tanaman jagung pada berbagai status hara di tanah inceptisol. Agrica Ekstensia. 9 (1): 1-7.
- Putra, R.Y., Haryati, H., dan L. Mawarni. 2012. Respon pertumbuhan dan hasil bawang sabrang (*Eleutherine americana merr.*) pada beberapa jarak tanam dan berbagai tingkat pemotongan umbi bibit. JOA. 1(1) : 159-170.
- Radostits, O. M., Gay, C. C., Hinchcliff, K. W. and Constable, P. D. 2007. Veterinary medicine: a textbook of the diseases of cattle, sheep, goats, pigs, and horses. Tenth Edition, Saunders Elsevier, London. pp. 1852- 1855.
- Rahayu, S., K. Supriyadi, S. Supriyono, S. Wijayanti, R. Putri, dan R. B. A. Putri. 2018. Keanekaragaman serangga pengunjung bunga pada tanaman tumpang sari kedelai dengan tanaman orok-orok (*Crotalaria juncea*). J. Entomol. 15 (1): 23-30.
- Rahila, K.C., Bhatt, L., Chakraborty, M., and Kamath, J.V. 2013. Hepatoprotective activity of *Crotalaria juncea* against thiocetamide intoxicated rats. India-IRJPAS. 3(1): 98-101.
- Ramteke, R., Doneria, R., and Gendley, M.K. 2019. Antinutritional factors in feed and fodder used for livestock and poultry feeding. Act. Sci. 3 (5) : 39-48.
- Reinprecht, Y., Schram, L., Marsolais, F., Smith, T.H., Hill, B., and Pauls, K.P. 2020. Effects of nitrogen application on nitrogen fixation in common bean production. Front. Plant Sci. 11: 1172.



- Robertson, S.M., Schmid, R.B., and Lundgren, J.G. 2023. Estimating plant biomass in agroecosystems using a drop-plate meter. Peer. J. 11:e15740.
- Robinson, M. and Reynolds, O.L. 2022. Australian Sunn Hemp Strategic RD&E Plan. AgriFutures Australia, Wagga Wagga, NSW.
- Rudianto, A., Sumarsono, dan Pangestu, E. 2014. Pertumbuhan produksi dan kualitas nutrisi tanaman orok-orok dan jagung manis sebagai bahan pakan yang ditanam secara tumpangsari. Anim Agric. 3(2): 230-241.
- Ryu, M.H, Zhang, J., Toth, T., Khokhani, D., Geddes, B.A., Mus, F., GarciaCostas, A., Peters, J.W., Poole, P.S., Ane, J.M., and Voigt, C.A. 2019. Control of nitrogen fixation in bacteria that associate with cereals. Nat. Microbiol. 5: 314-330.
- Sambo, A., Mukarlina, dan Wardoyo, E.R.P. 2020. Produktivitas sawi pakchoy (*Brassica chinensis* L.) pada tanah gambut setelah pemberian pupuk trichokompos kotoran bebek (*Anas* sp.). Protobiont 9 (3): 224-228.
- Sardans J. and Peñuelas J. 2021. Potassium control of plant functions: ecological and agricultural implications. Plants (Basel). 10(2):419.
- Sari, M.T.P., Susilawati, I., dan Mustafa, H.K. 2021. Pengaruh frekuensi pemberian poc hasil biokonversi lalat hermetia illucens terhadap produksi hijauan, rasio daun batang, dan rasio tajuk akar rumput *Pennisetum purpureum* cv. Mott. Jurnal Ilmu Ternak Universitas Padjadjaran. 21(1): 66-72.
- Savitri, M. V., Herni, S., dan Hermanto. 2012. Pengaruh umur pemotongan terhadap produktivitas gamal (*Gliricidia sepium*). Fakultas Peternakan Universitas Brawijaya. Malang.
- Schneider, N. R. 2012. Overview of cyanide poisoning. In: The merck's veterinary manual.
- Sefano, M.A., Maira, L., Darfis, I., Yunanda, W.W., and Nursalam, F. 2023. Study of the activity of soil microorganisms on the rhizosphere of corn (*Zea mays* L) by giving organic fertilizer to ultisols. Journal Of Top Agriculture. 1 (1): 31-39.
- Sengupta, S. and Debnath, S. 2018. Development of sunnhemp (*Crotalaria juncea*) fibre based unconventional fabric. J. Indcrop. 116: 109-115.
- Seta, Tiara P.D. 2019. Pemanfaatan biji orok-orok (*Crotalaria juncea*) sebagai bahan baku pembuatan minyak nabati dengan metode ekstraksi padat-cair. Jurnal Teknologi Kimia Unimal. 8: 2 (42-52).
- Shekinah, D. E., and Stute, J. K. 2018. Sunn hemp: a legume cover crop with potential for the Midwest. SAR. 7 (4): 63-69.
- Sher, A., Ansar, M., Hasan, F.U., Shabbir, G., and Malik, M. A. 2012. Hydrocyanic acid content variation amongs sorgum cultivars grown with varying seed rates and nitrogen arass. Int. J. Agric. Biol. 14 (5) : 720-726.



- Sher, A., Ansar, M., Manaf, A., Qayyum, A., Saeed, M.F., and Irfan M. 2013. Hydrocyanic acid and sugar content dynamics under nitrogen and sulphur application to forage sorghum cultivars. Turk. J. Field Crops. 19 (1): 46-52.
- Siswanto, B. 2018. Sebaran unsur hara N, P, K dan pH dalam tanah. Buana Sains. 18(2): 109 – 124.
- Skinner, E. M., Díaz-Pérez, J. C., Phatak, S. C., Schomberg, H. H., and Vencill, W. 2012. Allelopathic effects of sunnhemp (*Crotalaria juncea L.*) on germination of vegetables andweeds. HortScience. 47(1): 138–142.
- Sriagtula, R., Martaguri, I., Sowmen, S., and Zurmiati. 2021. Evaluation of nutrient solution dose and harvest time on forage sorghum (*Sorghum bicolor L. Moench*) in hydroponic fodder system. IOP Conf. Series: Earth and Environmental Science 888 (2021) 012068.
- Srisaikham, S. and Lounglawan, P. 2021. Nutrient yield of brown hemp and its utilization as protein source in concentrate on brahmanxthai-native cattle performances. CMUJ. Nat. Sci. 20(1): e2021006.
- Steel, R.G.D. and Torrie, J.H. 1981. Principles and procedures of statistics a biometrical approach. Second Edition. New York: McGraw Hill International Book Company. 633 p.
- Suhartanto, B., Astuti, D., Umami, N., dan Agus, A. 2018. Pengaruh dosis pupuk urea dan umur potong terhadap hasil hijauan sorgum (*Sorghum bicolor (L) Moench*). Agrinova. 1(2): 45-51.
- Sukmawan, Y., Riniarti, D., and Mukti, R. 2020. Optimization rate of urea fertilizer for one-year-old pepper (*Piper nigrum L.*) parent plant. ICoAAS. 5-10.
- Surtina, D., Sari, R.M., Astuti, T., and Kusuma, A.H. 2019. The effect of using some kind of manure on the content of dry matter, organic matter and crude protein of Elephant grass cv. taiwan (*Pennisetum purpureum*) on the first harvest. IOP Conf. Series: Earth and Environmental Science 347.
- Taiz, L., Zeiger, E., Möller, I.M., and Murphy, A. 2017. Fisiologia e desenvolvimento vegetal. 6th ed. Porto Alegre, Artmed.
- Tangketasik, A., Wikartini, N.M., Soniari, N.N., dan Narka I.W. 2012. Kadar bahan organik tanah pada tanah sawah dan tegalan di Bali serta hubungannya dengan tekstur tanah. AGROTRO. 2 (2): 101-107.
- Tantalo, S., Liman, dan Fathul, F. 2019. Efek umur pemangkasan indigofera (*Indigofera zollingeriana*) pada musim kemarau terhadap kandungan netral detergen fiber dan acid detergen fiber. JIPT. 7 (2): 241-246.
- Tariq, A., Zeng, F., Graciano, C., Ullah, A., Sadia, S., Ahmed, Z., Murtaza, G., Ismoilov, K., and Zhang, Z. 2023. Regulation of metabolites by nutrients in plants. Plant Ionomics: 1–18.



- Thomas, M. E., J. L. Foster, K. C. McCuistion, L. A. Redmon and R. W. Jessup. 2013. Nutritive value, fermentation characteristics, and in situ disappearance kinetics of sorghum silage treated with inoculants. *J. Dairy Sci.* 96: 7120-7131.
- Tolcha T. 2017. Effect of nitrogen fertilizer and harvesting days on yield and quality of Rhodes Grass (*Chloris gayana*) Under Irrigation at Gewane, North-Eastern, Ethiopia. [Thesis]. Haromaya University, Ethiopia.
- Tränkner, M., Tavakol, E., and Jákli, B. 2018. Functioning of potassium and magnesium in photosynthesis, photosynthate translocation and photoprotection. *Physiol. Plant.* 163: 414–431.
- Tripathi, M.K., Chaudhary, B., Bhandari, H.R., and Harish, E.R. 2012. Effect of varieties, irrigation and nitrogen management on fibre yield of sunnhemp. *J. Crop. Weed.* 8 (1): 84-85.
- Tripathi, M.K., Chaudhary, B., Sarkar, S.K., Singh, S.R., Bhandari, H.R., and Mahapatra, B.S. 2013. Performance of sunnhemp (*Crotalaria juncea L.*) as a summer season (Pre-Monsoon) crop for fibre. *J. Agric. Sci.* 5: 236-242.
- Umami, N., Abdiansyah, and A., Agus, A. 2019. Effects of different doses of NPK fertilization on growth and productivity of *Cichorium intybus*. IOP Conf. Ser.: Earth Environ. Sci. 387 012097.
- Umami, N., Solekhah, Z.A., Wardi, W., Kurniawati, A., Suseno, N., and Suhartanto, B. 2021. The effect of different NPK fertilizer on butterfly pea (*Clitoria ternatea*) production on the first harvest. *Adv. Biol. Res.* 21: 265-269.
- Umami, N., Suhartanto, B., Suwignyo, B., Suseno, N., Fenila, S. A., and Fajarwati, R. 2015. Productivity of forages in grassland merapi post-eruption area, Sleman, Yogyakarta, Indonesia. *Anim. Prod.* 17(2): 97-106.
- Van Steenis, C.G.J. 2008. Flora Edisi ke-12. PT Pradnya Paramita: Jakarta.
- Visković, J., V.D. Zheljazkov, V. Sikora, J. Noller, D. Latković, C. M. Ocamb, and A. Koren. 2023. Industrial hemp (*Cannabis sativa L.*) agronomy and utilization: a review. *J. Agron.* 13 (3): 931.
- Wahono, G. T., M. Astiningrum, Y. E. dan Susilowati. 2018. Pengaruh macam pupuk kandang dan umur potong terhadap hasil tanaman kangkung darat (*Ipomoea Reptans*) var. Bangkok Lp-1 di lahan pasca erupsi merapi. *VIGOR.* 3(1) : 9 – 12.
- Wang, C.L. and Dai, Y.L. 2018. First report of sunn hemp Fusarium wilt caused by *Fusarium udum* f. sp. *Crotalariae* in Taiwan. *Plant. Dis.* 102 (5): 1031–1031.
- Wardhani, A.S., Liman, L., Farda, F.T., and Muhtarudin. M. 2023. The effect of applying the type and dose of nitrogen fertilizer to the content of crude protein and crude fiber of gama umami grass. *JRIP.* 7 (1): 109-115.



- Wenno, S.J., dan Sinay, H. 2019. Kadar klorofil daun pakcoy (*Brassica chinensis* L.) Setelah perlakuan pupuk kandang dan ampas tahu sebagai bahan ajar mata kuliah fisiologi tumbuhan. Biopendix. 5 (2): 130-139.
- Widiastuti, S., Rahayu, T. P., dan Septian, M. H. 2021. Pengaruh umur potong yang berbeda terhadap produksi dan kandungan bahan kering serta protein kasar sorghum *green fodder hydroponic*. JITP. 9 (2): 64-68.
- Xu, C., Li, R., Song, W., Wu, T., Sun, S., Hu, S., Han, T., and Wu, C. 2021. Responses of branch number and yield component of soybean cultivars tested in different planting densities. Agriculture. 11 (1): 69.
- Xu, X., Du, X., Wang, F., Sha, J., Chen, Q., Tien, G., Zhu, Z., Ge, S., and Jiang Y. 2020. Effects of potassium levels on plant growth, accumulation and distribution of carbon, and nitrate metabolism in apple dwarf rootstock seedlings. Front. Plant Sci. 11.
- Yani, Muhammad., K. P. Wicaksono, dan A. Nugroho. 2016. Pengaruh pemanfaatan tanaman penutup tanah orok-orok (*Crotalaria Juncea L.*) terhadap pengendalian gulma pada tanaman jagung (*Zea Mays L.*) di musim hujan. J. Produksi Tanaman 4(7): 512-519.
- Yu, J. N., Shu, J. B., Song, H. X., and Guan, C. Y. 2014. Research advance of rape carbon and nitrogen metabolism relationship and effects on rape yield. J. Anhui Agri. Sci. 6920–6922.
- Yuningsih. 2009. Perlakuan penurunan kandungan sianida ubi kayu untuk pakan ternak. J. Penelit. Pertanian Tanaman Pangan. 28 (1): 58-61.
- Zainuddin, Zuraida, and Jufri, Y. 2019. Evaluation of the availability of phosphorus nutrients (P) on intensive rice fields in Sukamakmur District, Aceh Besar Regency. JIMTANI. 4 (4): 603-609.
- Zayed, O., Hewedy, O.A., Abdelmoteleb, A., Ali, M., Youssef, M.S., Roumia, A.F., Seymour, D., and Yuan, Z. 2023. Nitrogen journey in plants: from uptake to metabolism, stress response, and microbe interaction. Biomoleculs. 13 (10): 1443.
- Zhang, S., Liu, Y., Du, M., Shou, G., Wang, Z., and Xu, G. 2022. Nitrogen as a regulator for flowering time in plant. Plant. Soil. 480: 1-29.
- Zhang, Y., Ye, C., Su, Y., Peng, W., Lu, R., Liu, Y., Huang, H., He, X., Yang, M., and Zhu, S. 2022. Soil acidification caused by excessive application of nitrogen fertilizer aggravates soil-borne diseases: Evidence from literature review and field trials. Agric. Ecosyst. Environ. 340.