



DAFTAR PUSTAKA

- Adejare, F. B. And C. E. Umebese. 2008. Water stress induces cultivar dependent changes in stomatal complex, yield and osmotic adjustment in *Glycine max L.* *International Journal of Agricultural Research* 3 (4): 287-295.
- Ahmad, R., A. Jabbar., A. H. Ahmad, E. Ullah. and I. H. Bhatti, 2007. Evaluation of direct seeded upland rice-based intercropping system under strip planting geometry. *Pakistan J. Agric. Sci.* 44:1-5.
- Alam, T., 2015. Optimasi Pengelolaan Sistem Agroforestri Cengkeh, Kakao, Kapulaga di Pegunungan Manoreh. *Thesis*. Universitas Gadjah Mada. Yogyakarta.
- Alavan, A., Hayati, R. and Hayati, E., 2015. Pengaruh Pemupukan Terhadap Pertumbuhan Beberapa Varietas Padi Gogo (*Oryza sativa L.*). *Jurnal Floratek*. 10 (1): 61-68.
- Aldrich, R. J., 1984. *Weed-crop Ecology: Principle in Weed Management*. Departement of Agriculture University of Missouri-Columbia. 465p.
- Alexander, M. (1977). *Introduction to Soil Microbiology*. 2nd Edition. John Wiley and Sons; New York-Chichester-Brisbane-Toronto-Singapore. 472 pp.
- Alexander, A. 1978. *Optimum Timing of Foliar Nutrient Sprays in Foliar Fertilization*. Editor: A. Alexander. Martinus Nijhoff Publishers. Dordrect. 44-60.
- Ali, S., Bhatti, A.U., Khan, F. and Ghani, A., 2008. Performance of mungbean in wheat mungbean system under integrated plant nutrient management on eroded lands. *Sarhad Journal of Agriculture* 24 (3): 445-452.
- Ali, N. S. 2012. Evolusi fotosintesis pada tumbuhan. *J. Ilmiah Sains* 12 (1).
- Al-Omrani, A.M., A.M. Falatah, A.S. Sheta, dan A.R. Al-Harbi. 2004. Clay deposits for water management of sandy soils. *Arid Land Research and Management* 1: 171-183.
- Alom, M.S., Paul, N.K. and Quayyum, M.A., 2010. Production potential of different varieties of hybrid maize (*Zea mays L.*) with groundnut (*Arachis hypogaea L.*) under intercropping system. *Bangladesh Journal of Agricultural Research* 35 (1): 51-64.
- Amanullah. 2015. Specific leaf area and specific leaf weight in small grain crops wheat, rye, barley, and oats differ at various growth stages and NPK source. *Journal of Plant Nutrition* 38: 1694–1708.
- Anderson, W. P., 1977. *Weed Science: Principles*. West Publishing Company. St. Paul. New York. Boston. Los Angeles. San Fransisco. 598p.
- Anonim, 2014. Budidaya Kedelai di Lahan Pasir. [internet]. http://yogya.litbang.pertanian.go.id/ind/index.php?option=com_content&vie



[w=article&id=1025:budidaya-kedelai-di-lahan-pasir&catid=4:info-aktual&Itemid=174.](#)

- Anonim, 2015. Pemupukan pada Tanaman Padi. [internet]. <http://bbpadi.litbang.pertanian.go.id/index.php/berita/infoteknologi/content/26-pemupukan-pada-tanaman-padi>.
- Anonim. 2015. Produksi kedelai nasional masih rendah. [internet]. <https://ugm.ac.id/id/berita/9987-produksi.kedelai.nasional.masih.rendah>
- Anwar, M.R., Liu, D.L., Farquharson, R., Macadam, I., Abadi, A., Finlayson, J., Wang, B., dan Ramilan, T. 2015. Climate change impacts on phenology and yields of five broadacre crops at four climatologically distinct locations in Australia. *Agricultural Systems* 132: 133-144.
- Arlauskiene, A., S. Maiksteniene, L. Sarunaite, Z. Kadziuliene, I. Deveikyte, V. Zekaite, R. Cesnuleviciene. 2011. Competitiveness and productivity of organically grown pea and spring cereal intercrops. *Agriculture* 98(4): 339-348.
- Arnon, D. I., 1971. The light reaction of photosynthesis. *Proc. Nat. Acad. Sci.* 66 (11): 2883-2892.
- Aztrina, A., Siregar, L.A, Kardhinata, E.H. 2014. Pengaruh Paclobutrazol Terhadap Jumlah Klorofil, Umur Berbunga dan Umur Panen Dua Varietas Sorghum (*Sorghum bicolor* (L.)Moench). *Agroteknologi* 2 (4).
- Astuti, F. W., 2003. Kombinasi Pupuk Kandang dan Vertisol Untuk Meningkatkan Kapasitas Menahan Lengas di Lahan Pasir Pantai yang Dirajai Oleh Berbagai Subfraksi Pasir. *Skripsi*. Faperta UGM, Yogyakarta. 101 hlm.
- Atmojo, S.W. 2003. *Peranan bahan organik terhadap kesuburan tanah dan upaya pengelolaannya*. Sebelas Maret University Press. Surakarta.
- Bakhtiar, T. Hidayat, Y. Jufri, dan S. Safriati. 2014. Keragaman pertumbuhan dan komponen hasil beberapa varietas unggul kedelai di Aceh Besar. *J. Floratek*. 9: 46 – 52.
- Banik, P., A. Midya, B. K. Sarkar and S. S. Ghose, 2006. Wheat and chickpea intercropping systems in an additive series experiment: Advantages and weed smothering. *European Journal of Agronomy* 24 (4): 325-332.
- Beets, W.C. 1982. *Multiple Cropping and Tropical Farming System*. London: Gower Publishing Company Limited.
- Beuerlein, J. E. Dan J. W. Pendleton. 1971. Photosynthetic rates and light saturation curves of individual Soybeans leaves under field condition. *Agron. J.* 63: 46 – 50.
- Biabani, A., M. Hashemi, dan S. J. Herbert., 2008. Agronomic Performance of Two Intercropped Soybean Cultivars. *IJPP*. 2 (3): 215-221



Bilagi, S. A., D. I. Jirali, M. B. Chetti, S. M. Hiremath, dan B. N. Patil. 2008. Biophysical, Biochemical Parameters and Their Association with Yield in *Dicoccum* Wheat Genotypes. *J. Agricultural Science* 21: 176-180.

Boussadia, O., F. B. Mariem, B. Mechri and W. Boussetta., 2008. Response to drought of two olive tree cultivars (cv Koroneki and Meski). *Scientia Horticulture* 116: 388-393.

Badan Pusat Statistik. 2014. *Statistik Lahan Pertanian Tahun 2009-2013*. Pusat Data dan Sistem Informasi Pertanian, Sekretariat Jenderal-Kementerian Pertanian, Indonesia.

BPS, 2016. *Proyeksi Penduduk Indonesia 2010-2035*. Diakses dari <http://www.bps.go.id>. Pada tanggal 24 Maret 2016

BPTP, 2006. *Arahan Kesesuaian Lahan Untuk Pengembangan Tanaman Kedelai*. Balai Penelitian dan Pengembangan Pertanian. Departemen Pertanian. Jakarta.

Campbell, W. H. 1999. Nitrate reductase structure, function and regulation: Bridging the Gap between Biochemistry and Physiology. *Annu. Rev. Plant Physiol Mol. Biol.* 50: 277-303.

Catharina, T.S., 2009. Respon tanaman jagung pada sistem monokultur dengan tumpangsari kacang-kacangan terhadap ketersediaan unsure hara N dan nilai kesetaraan lahan di lahan kering. *Ganec Swara Edisi Khusus 3 (3)*: 17-21.

Casagrande, M., David, C., Valantin-Morison, M., Makowski, D. and Jeuffroy, M.H., 2009. Factors limiting the grain protein content of organic winter wheat in south-eastern France: a mixed-model approach. *Agronomy for sustainable development* 29 (4): 565-574.

Chauhan, B.S. 2012. Weed ecology and weed management strategies for dry-seeded rice in Asia. *Weed Technol.* 26: 1-13.

Chimoyo, V.G.P., A.T. Modi, and T. Mabhaudi. 2016. Water use and productivity of a sorghum–cowpea–bottle gourd intercrop system. *Agricultural Water Management* 165: 82–96.

Choudhary, V.K., Dixit, A., Suresh Kumar, P. and Chauhan, B.S., 2014. Productivity, Weed Dynamics, Nutrient Mining, and Monetary Advantage of Maize-Legume Intercropping in the Eastern Himalayan Region of India. *Plant Production Science* 17 (4): 342-352.

Chutia, J. dan S. P. Borah. 2012. Water Stress Effects on Leaf Growth and Chlorophyll Content but Not the Grain Yield in Traditional Rice (*Oryza sativa* Linn.) Genotypes of Assam, India II. Protein and Proline Status in Seedlings under PEG Induced Water Stress. *American Journal of plant Science* 30: 971-980.

Departemen Pertanian. 2009. *Pelepasan Padi Gogo Beras Merah Lokal Segreng sebagai Varietas Unggul dengan nama Segreng Handayani*. SK Menteri



Pertanian. Nomor 2226/Kpts/SR.120/5/2009 tanggal 19 Mei 2009.
Departemen Pertanian, Jakarta.

Devlin, M.D and F. H. Witham. 1983. *Plant Physiology*. Willard Grant Press. Boston.

Djukri dan Purwoko, B S. 2003. Pengaruh naungan paronet terhadap sifat toleransi tanaman talas (*Colocasia esculenta* (L.) Schott). *Ilmu Pertanian* 10 (2): 17-25.

Downs, R.J., 2012. *Environment and the experimental control of plant growth*(Vol. 6). Elsevier. 83p.

Downton, W.J.S. 1970. Preferential C4 - dicarboxylic acid synthesis, the postillumination CO₂ burst, carboxyl transfer step, and grana configurations in plants with C4-photosynthesis. *Can. J. Bot.* 48: 1795-1800.

Eskandari, H., K. Kazemi. 2011. Weed control in maize-cowpea intercropping system related to environmental resources consumption. *Not. Sci. Biol.* 3 (1): 57-60.

Fageria, N. K., V. C. Baligar, and R. B. Clark. 2005. *Physiology of Crop Production*. Food product Press®. The Haworth Press. Inc. 339p.

Fay, P.A. & A.K. Knapp. 1998. Respons to short-term reductions in light in soybean leaves: effect of leaf position and drought. *Int. J. Plant Sci.* 159 (5): 805-811.

Gardner, F. P., R. B Pearce, dan R. L. Mitchell. 1991. *Fisiologi Tanaman Budidaya*. Terjemahan oleh H. Susilo. 2008. Penerbit Universitas Indonesia (UI-Press), Jakarta.

Gao, F., M.K. van Ittersum, G. Wang, P.E.L. van der Putten, & W. van der Werf. 2016. Yield and yield components of wheat and maize in wheat-maizeintercropping in the Netherlands. *Europ. J. Agronomy* 76: 17-27.

Gharineh, M.H., S.A. Moosavi. 2010. Effect of intercropping (canola-faba bean) on density and diversity of weeds. *Not. Sci. Biol.* 2 (1): 109-112.

Gomez, A. A. and K. A. Gomez, 1983. *Multiple Cropping in The Humid Tropics of Asia* IDRC Ottawa. 248p.

Gomez, K. A. dan A. A. Gomez. 1984. *Statistical Procedures for Agricultural Research*. P. 80.

Gross, J., 1991. Pigmentin Vegetable, Chlorophyl and Caretinoids. Van Nostrand Reinhold. New York.

Hani, A. 2015. Produktivitas kedelai pada pola agroforestri nyamplung (*Callophylum inophyllum*) di lahan pantai berpasir Pangandaran, Jawa Barat. *Jurnal Silvikultur Tropika* 6 (2): 78-82.



Harborne, J.B., 1987. *Phytochemical Methods*. Terj. Padmawinata, K. dan I Sodiro. Penerbit ITB. Bandung.

Hariadi, D. 2016. Uji Ketahanan Beberapa Kultivar Kedelai Terhadap Persaingan Dengan Gulma. *Thesis*. Fakultas Pertanian, Universitas Gadjah Mada, Yogyakarta.

Harjadi S.S., 1991. *Pengantar agronomi*. Jakarta: PT Gramedia.

Hartati, S. 1998. Pengaruh Saat Tanam dan Populasi Jagung Terhadap Pertumbuhan dan Hasil Tanaman dalam Sistem Tumpang Gilir Kedelai Jagung. *Thesis*. Universitas Gadjah Mada. Yogyakarta

Hartiko, H., 1983. Leaf and Root in Vivo Nitrate Reductase Activities of Coconut (*Cocos nucifera L.*) cultivars and hybrids. *Disertation*. Submitted to the Faculty of the Graduate School University of The Philippines at Los Banos. Philippines.

Hauggaard-Nielsen, H., Jornsgaard, B., Kinane, J., Jensen, E.S., 2007. Grain legume-cereal intercropping: the practical application of diversity, competition and facilitation in arable and organic cropping systems. *Renew Agric. Food Syst.* 23: 3–12.

Herdina, P., A. A. Rahmianna, dan A. Taufiq. 2012. Perbandingan fenologi beberapa varietas unggul kacang hijau pada pertanaman awal musim hujan. *Di dalam: Prosiding Seminar Hasil Penelitian Tanaman Aneka Kacang dan Umbi*. Balai Penelitian Tanaman Kacang-kacangan dan Umbi-umbian. Malang. hlm. 487.

Hayati, R., D.B. Egli, dan S.J.C. Brander. 1996. Independence of nitrogen supply and seed growth in soybean: study using an in vitro culture system. *J. Experimental Botany* 47 (294): 33-40.

Hidayati, N., Tridiati, dan I. Anas. 2016. Photosynthesis and Transpiration Rates of Rice Cultivated Under the System of Rice Intensification and the Effects on Growth and Yield. *Hayati Journal of Bioscience* 23: 67-72.

Hussain, Z.A.H.I.D., Marwat, K.B., Munsif, F., Samad, A., Hashim, S. and Bakht, T.A.M.A.N.A. 2013. Influence of intercropping in maize on performance of weeds and the associated crops. *Pak. J. Bot.* 45 (5): 1729-1734.

Inal, A., A. Gunes, F. Zhang, dan I. Chakmak. 2007. Peanut/maize intercropping induced changes in rhizosphere and nutrient concentrations in shoots. *Plant physiology and biochemistry* 45: 350-356.

Indradewa, D. 2002. Gatra Agronomis dan Fisiologis Pengaruh Genangan dalam Parit pada Tanaman Kedelai. *Disertasi*. Universitas Gadjah Mada Yogyakarta, Indonesia.

Irawan, B. 2015. *Dinamika produksi padi sawah dan padi gogo: implikasinya terhadap kebijakan peningkatan produksi padi*. Badan Penelitian dan Pengembangan Pertanian. IAARD Press.



- Istirochah, P. Dan Djuhari. 2014. The pattern of stomatal opening through the exposure of high-frequency sound wave with different duration and of soybeans (*Glycine max* (L.) Merril). *J. Agricultural Science* 2 (1): 69-77.
- Issukindarsyah, 2013. Induksi Ketahanan Bibit Kelapa Sawit terhadap Cekaman Kekeringan dengan Aplikasi beberapa Dosis *Boric Acid* dan *Sodium Silicate*. *Tesis. Program Pasca Sarjana, Fakultas Pertanian, Universitas Gadjah Mada. Yogyakarta.*
- Jayakumar, M., K. Ponnuswamy. and M. M. Amanullah. 2008. Effect of sources of nitrogen and intercropping on weed control, growth and yield of cotton. *Res. J. Agric. Biol. Sci.* 4: 154-158.
- Johnson D., S. Wang, and A. Suzuki. 1999. *Edamame* vegetable soybean for Colorado. In Janick, J. (Ed.). *Perspectives on New Crops and New Uses*. ASHS Press, Alexandria, VA. p. 385-388.
- Karatassiu, M., B. Noitsakis, & Z. Koukoura. 2009. Drought adaptation ecophysiological mechanisms of two annual legumes on semi-arid Mediterranean grassland. *Scientific Research and Essay* 4 (5): 493-500.
- Kastono D, Sawitri H, Siswandono. 2005. Pengaruh nomor setek dan dosis pupuk urea terhadap pertumbuhan dan hasil kumis kucing. *Ilmu Pertanian* 12 (1): 56-64.
- Kementan, 2017. LHK-01 : Laporan Harian Harga Produsen Komoditas Pangan Tingkat Kabupaten/Kota (Satuan dalam Rp/Kg) bulan April 2017. [on line]. Diakses dari <http://aplikasi.pertanian.go.id/smshargakab/lhk01.asp>. Pada 5 Mei 2017.
- Kertonegoro, B.D. 2001. Gumuk Pasir Pantai Di D.I. Yogyakarta : Potensi dan Pemanfaatannya untuk Pertanian Berkelanjutan. *Prosiding Seminar Nasional Pemanfaatan Sumberdaya Lokal untuk Pembangunan Pertanian Berkelanjutan*. Universitas Wangsa Manggala Yogyakarta. Pada tanggal 02 Oktober 2001. Hal 46-54.
- Khan, M.A., K. Ali, Z. Hussain, R.A. Afridi. 2012. Impact of maize-legume intercropping on weeds and maize crop. *Pak. J. Weed Sci. Res.* 18 (1): 127-136.
- Khan, M. A. dan M. Akmal. 2014. Sole and intercropping Sunflower-Mungbean for spring cultivation in Peshawar. *Pure and Applied Biology* 3 (4): 121-131.
- Khomramivava, M., S. Z. Salmasi, A. D. M. Nassab, A. Javanshir, dan A. M. Shuti. 2006. Evaluation of competition in Corn (*Zea mays* L.) and Pumpkinseed (*Cucurbita pepo* var. *styriaca*) intercropping by reciprocal yield model and some competitive indices. *Journal of Agronomy* 5 (3): 456-460.
- Kristamtini, Sarjiman, dan Prajitno., 2007. Potensi beberapa plasma nutfah padi merah lokal DIY. *Prosiding Seminar Nasional Inovasi Teknologi dan*



Kelembagaan Pertanian dalam Upaya Peningkatan Pemberdayaan Masyarakat. Balai Pengkajian Teknologi Pertanian Yogyakarta bekerja sama dengan INSTIPER Yogyakarta.

- Kristamtini dan H. Purwaningsih. 2009. Potensi pengembangan beras merah sebagai plasma nutfah Yogyakarta. *Jurnal Litbang Pertanian* 28 (3): 88-95.
- Lakitan B. 1996. *Fisiologi pertumbuhan dan perkembangan tanaman*. Raja Grafindo Persada. Jakarta.
- Leopold, A. C. and P. E Kriedemann. 1975. *Plant Growth and Development*. Tata Mc Grow Hill Pub. Co. Ltd., New Delhi. 545p.
- Lei, W., Z. Tong, dan D. Shengyan. 2006. Effect of drought and rewatering on photosynthetic physioecological characteristics of soybean. *Acta Ecologica Sinica* 26 (7): 2073-2078.
- Liebman, M. and E. Dyck. 1993. Cropping Rotation and Intercropping Strategies for Weed Management. *Ecological Applications* 3 (1): 92-122.
- Liu, X., J. Jin, S.J. Herbert, Q. Zhang, & G. Wang. 2004. Responses of photosynthetic rates and yield/quality of main crops to irrigation and manure application in the black soil area of Northeast China. *Plant and Soil* 261: 55-60.
- Liu, X., J. Jin, S.J. Herbert, Q. Zhang, & G. Wang. 2005. Yield components, dry matter, LAI and LAD of soybeans in Northeast China. *Field Crops Research* 93: 85–93
- Liu, X. B., S. J. Herbert, A. M. Hashemi, G. V. Litchfield, Q. Y. Zhang, & A. R. Barzegar. 2006. Responses of Soya bean Yield and Yield Component Distribution across the Main Axis under Source–Sink Manipulation. *J. Agronomy & Crop Science* 192: 140-146.
- Maggio, A., Miyazaki S., Veronese P., Fujita T., Ibeas J. I., Damsz B., Narasimhan M. L., Hasegawa P. M., Joly R. J., and Bressan R. A. 2002. Does proline accumulation play an active role in stress-induced growth reduction?. *Plant J.* 31: 699–712
- Manna, M.C., Ghosh, P.K. and Acharya, C.L., 2003. Sustainable crop production through management of soil organic carbon in semiarid and tropical India. *Journal of Sustainable Agriculture* 21 (3): 85-114.
- Manshuri, A. G., 2010. Pemupukan N, P, dan K pada kedelai sesuai kebutuhan tanaman dan daya dukung lahan. *Penelitian Pertanian Tanaman Pangan* 29 (3): 171-179.
- Matsunami, T., G. H. Jung, Y. Oki, & M. Kokubun. 2007. Effect of Waterlogging During Vegetative Stage On Growth And Yield in Supernodulating Soybean Cultivar Sakukei 4. *Plant Prod. Sci.* 10 (1): 112-121.



- Meyers, W.H. 1991. *The World Soybean Trade Model : Spesification, Estimation, and Validation.* Center for Agricultural and Rural Development Iowa State University.
- Morozkina, E.V. and R. A. Zvyagilskaya. 2007. Nitrate Reductases: Structure, Functions, and Effect of Stress Factors. *Biochemistry* 72 (10): 1151-1160.
- Nair, P.R. 1993. *An Introduction to Agroforestry.* Kluwer Academic Publishers. Netherlands.
- Najiyati S dan Danarti. 1999. *Palawija Budidaya dan Analisis Usaha Tani.* Penebar Swadaya. Jakarta.
- Nassab, A. M., T. Amon, and H. P. Kaul. 2011. Competition and yield in intercrops of maize and sunflower for biogas. *Industrial Crops and Products* 34: 1203–1211.
- Nina, A. 2003. Kajian waktu tanam dan jumlah baris kacang hijau dalam sistem pertanaman tumpangsari dengan padi gogo. *Thesis.* Fakultas Pertanian Universitas Gadjah Mada.Yogyakarta.
- Nobel, P.S., 1999. *Plant Physiology, Physicochemical and Environment.* 2nd ed. Academic Press. New San Diego.
- Norsalis, E., 2011. *Padi Gogo dan Padi Sawah.* Diakses dari <http://repository.usu.ac.id/>. pdf. Pada 15 Juli 2016.
- Olandina, D. A., 2010. Hubungan karakter fisiologis, pertumbuhan, komponen hasil dengan hasil beberapa varietas kedelai (*Glycine max L. Merrill*). *Thesis.* Universitas Gadjah Mada. Yogyakarta.
- Oroka, F. O. and A. U. Omoregie. 2007. Competition in a rice-cowpea intercrop as affected by nitrogen fertilizer and plant population. *Sci. Agric.* 64 (6): 621-629.
- Ohsuni, A., Kanemura, T., Homma, K., Horie, T. and Shiraiwa, T. 2007. Genotypic variation of stomatal conductance in relation to stomatal density and length in rice (*Oryza sativa L.*). *Plant Prod. Sci.* 10: 322–328.
- Paes, A., M.E. Gonzales, X. Yrasquin, A. Salazar, and A. Casanova. 1995. Water stress and clipping management effect on Guine Grass. *Agron. J.* 87 (4): 698-706.
- Paiman. 2014. Kajian Solarisasi Tanah untuk Pengendalian Gulma Pra-Tanam pada Tanaman Cabai. *Disertasi.* Universitas Gadjah Mada. Yogyakarta.
- Pandey, M., & Singh, T. 2015. Effect of Intercropping Systems and Different Levels of Nutrients on Dry Matter Accumulation and Physiological Growth Parameters of Bed Planted Wheat (*Triticum aestivum L.*). *Indian Journal of Science and Technology* 8 (11).



- Pasau, P., P. Yudono, dan A. Syukur. 2008. Pergeseran komposisi gulma pada perbedaan proporsi populasi jagung dan kacang tanah dalam tumpangsari pada regosol Sleman. *Jurnal Ilmu Pertanian* 16 (2): 60-78.
- Purwanti, S. 2004. Kajian suhu ruang simpan terhadap kualitas benih kedelai hitam dan kedelai kuning. *Ilmu Pertanian* 11 (1): 22-31.
- Putra, S. 2012. Pengaruh Pupuk NPK Tunggal, Majemuk, dan Pupuk Daun terhadap Peningkatan Produksi Padi Gogo Varietas Situ Patenggang. *Agrotrop*. 2 (1): 55-61.
- Putra, E. T. S. 2005. Pengaruh Arah dan Waktu Aplikasi Pupuk Daun Terhadap Pertumbuhan Bibit Vanili Asal Stek Pendek. *Tesis*. Universitas Gadjah Mada. Yogyakarta.
- Putri, M.P., 2011. Analisis komparatif usahatani tumpangsari jagung dan kacang tanah dengan monokultur jagung di kabupaten Wonogiri. *Skripsi*. Universitas Sebelas Maret, Surakarta.
- Rahayu, M., D. Prajitno, dan A. Syakur. 2006. Pertumbuhan Vegetatif Padi Gogo dan Beberapa Varietas Nanas dalam Sistem Tumpangsari di Lahan Kering Gunung Kidul, Yogyakarta. *Biodiversitas*. 7 (1): 73-76.
- Rahma, C. 2015. Siapa Sangka Lahan Pasir Pantai Bisa Dijadikan Lahan Pertanian Subur. [internet]. [diakses 28 Juli 2016] http://www.kompasiana.com/charismarahma/siapa-sangka-lahan-pasir-pantai-bisa-dijadikan-lahan-pertanian_subur_54f84e45a33311d45d8b49ea
- Raines, C. A. Dan J. C. Lloyd. 2001. C3 Carbon Reduction Cycle. *Encyclopedia of Life Science*, Nature Publishing Group. pp. 1-5.
- Rajagopal, N., Velayadham, K., Rajendran, P. and Radhamani, S. 1998. Efficiency of dual cropping of green manures with maize on weed management. *Madras Agric. J.* 85: 393-395.
- Ralp, O. L. and Suzane. 2013. *Soluble Carbohydrates in Soybean*. Cornel University, USA.
- Ren, Y., J. Liu, Z. Wang, dan S. Zhang. 2016. Planting density and sowing proportions of maize–soybean intercrops affected competitive interactions and water-use efficiencies on the Loess Plateau, China. *European Journal of Agronomy* 72: 70-79.
- Roush, M.I, S.R. Radosevich, R.G. Wagner, & T.D. Pterson. 1989. A coparisone of methode for measuring effects of density and proportionin plant competition experiment. *Weed sci.* 37: 268-275
- Rozen, N., A. Anwar, dan Armansah. 2010. Pengendalian Gulma pada Sri Organik. Fakultas Pertanian, Universitas Andalas, Padang. Vol. 3 (1).
- Sakamoto, C. M. Dan R. H. Shaw. 1967. Light distribution in field Soybean canopies. *Agron. J.* 59: 7 – 9.



- Saparso. 2003. Pengembangan Tanaman Kubis Lahan Pasir Pantai: Pertumbuhan Tanaman pada Berbagai Kombinasi Mulsa dan Cara Pemberian Nitrogen. *Agrin.* 7 (2): 60-73.
- Saparso. 2008. Ekofisiologi Tanaman Kubis Bawah Naungan dan Pemberian Bahan Pembentah Tanah di Lahan Pasir Pantai. *Disertasi-S3 Sekolah Pasca Sarjana UGM*, Yogyakarta. 277 hal.
- Saparso, Tohari, D. Shiddieq, dan B. Setiadi. 2009. Anasir lingkungan penentu produksi kubis dilahan pasir pantai. *J. Hort.* 19 (3): 301-312.
- Sarjito, A. dan B. Hartanto. 2007. Respon tanaman jagung terhadap aplikasi pupuk nitrogen dan penyisipan tanaman kedelai. *Agrin.* 11 (2): 130-137.
- Sarwar, A. K. M. G., M. A. Karim, and S. M. A. M. Rana. 2013. Influence of stomatal characteristics on yield and yield attributes of Rice. *J. Bangladesh Agril. Univ.* 11 (1): 47–52.
- Sastroutomo, S.S. 1990. *Ekologi Gulma*. Penerbit PT Gramedia, Jakarta. 217p.
- Sembiring, A.S., J. Ginting, dan F.E. Sitepu. 2015. Pengaruh Populasi Kacang Tanah (*Arachis hypogaea L.*) dan Jagung (*Zea mays L.*) terhadap Pertumbuhan dan Produksi Pada Sistem Pola Tumpangsari. *Jurnal Online Agroteknologi* 3 (1): 52-71.
- Setiawan, E. 2009. Kajian hubungan unsur iklim terhadap produktivitas cabe jamu (*Piper retrofractum Vahl.*) di Kabupaten Sumenep. *Agrivigor.* 2 (1): 1-11.
- Setiawan, Tohari, dan D. Shiddieq. 2013. Pengaruh Cekaman Kurang Air Terhadap Beberapa Karakter Fisiologis Tanaman Nilam (*Pogostemon Cablin* Benth). *J. Littri.* 108-116.
- Sharma, R. C.. dan P. Banik. 2013. Baby Corn-Legumes Intercropping System: Weed Dynamics and Community Structure. *Wageningen Journal of Life Sciences* 67: 11-18.
- Shibles, R. M. Dan C. R. Weber. 1965. Leaf area, solar radiation, interception and dry matter production by Soybeans. *Crop Sci.* 5: 575 – 578.
- Sirait, J. 2008. Leaf area, chlorophyll content, and relative growth rate of grass on different shading and fertilization. *JITV.* 13 (2): 109-116.
- Sitompul SM, Guritno B. 1995. *Analisis pertumbuhan tanaman*. Gadjah Mada University Press. Yogyakarta.
- Slamet. 2003. *Teori Ekonomi Produksi*. CV. Rajawali. Jakarta.
- Sobkowicz, P., 2006. Competition between triticale (*Triticosecale Witt.*) and field beans (*Vicia faba* var. *minor L.*) in additive intercrops. *Plant Soil and Environment* 52 (2): 47.



- Soejono, A.T. 2005. Tumpangsari tebu lahan kering dengan beberapa jenis tanaman palawija kaitannya dengan pertumbuhan gulma dan hasil tanaman. *Disertasi*. Universitas Gadjah Mada. Yogyakarta.
- Soekartawi. 2006. *Prinsip Dasar Ekonomi Pertanian Teori dan Aplikasi*. PT. Raja Grafindo Persada. Jakarta.
- Srihartanto, E., A. Anshori, dan A. Iswadi. 2015. Produktivitas kedelai dengan berbagai jarak tanam di Yogyakarta. *Prosiding Seminar Hasil Penelitian Tanaman Aneka Kacang dan Umbi*. Hal 151-154.
- Spitters, C.J.T. 1983. An alternative approach to the analysis of mixed cropping experiments. 1. Estimation of competition effects. *Neth. J. Agric. Sci.* 31: 1-11.
- Su, L., Wang, Q., Wang, C. and Shan, Y., 2015. Simulation Models of Leaf Area Index and Yield for Cotton Grown with Different Soil Conditioners. *PLoS one*. 10 (11): 1814-1835.
- Subrata, B. A. G., 2016. Pengaruh Proporsi Populasi Padi Gogo dan Kacang Hijau Dalam Tumpangsari Terhadap Hasil dan Komposisi Gulma di Lahan Pasir Pantai. *Tesis*. Universitas Gadjah Mada. Yogyakarta.
- Sulistyono, Eko. Suwarto dan Yulianti Ramdiani. 2005. Defisit Evapotranspirasi sebagai Indikator Kekurangan Air pada Padi Gogo. *Bul. Agron.* 33 (1): 6-11.
- Sumarno dan Harnoto. 1983. *Kedelai dan cara bercocok tanamnya*. Pusat Penelitian dan Pengembangan Tanaman Pangan. Buletin Teknik 6:53 hal.
- Sumarno dan J. R. Hidayat., 2007. Perluasan Areal Padi Gogo sebagai Pilihan untuk Mendukung Ketahanan Pangan Nasional. *Iptek Tanaman Pangan* 2 (1): 26-40.
- Sundari, T. dan G. W. A. Susanto. 2015. Pertumbuhan dan Hasil Biji Genotipe Kedelai di Berbagai Intensitas Naungan. *Peneilitian Pertanian Tanaman Pangan* 34 (3): 203-217.
- Sunghening, W., & Tohari, D. F. S. 2013. Pengaruh Mulsa Organik Terhadap Pertumbuhan dan Hasil Tiga Varietas Kedelai (*Vigna radiata L. Wilczek*) di Lahan Pasir Pantai Bugel. Kulon Progo. *Vegetalika* 1 (2): 54-66.
- Sung, F. J. M., 1993. Waterlogging effect on nodule nitrogenase and leaf nitrate reductase activities in soybean. *Field Crop Research* 35: 183-189.
- Suprapto. 1989. Bertanam kedelai. Jakarta: Penebar Swadaya.
- Szumigalski, A., & Van Acker, R. 2005. Weed suppression and crop production in annual intercrops. *Weed Science* 53 (6): 813-825.
- Taiz, L. and E. Zeiger. 2002. *Plant Physiology*. Third Edition. Sinauer Associates, Inc Publishers. Massachusetts.



- Tanaka, A. and M. Okasaki. 1983. Growth and behavior of photosynthesis 14C in various crops in relation to productivity. *Soil Sci. Plant Nutr.* 29: 147-158.
- Tohari. 1995. *Fisiologi Lingkungan*. Handout Mata Kuliah Fisiologi Lingkungan. Program Pasca Sarjana, Fakultas Pertanian Universitas Gadjah Mada. Yogyakarta. (Tidak dipublikasikan)
- Touré, A., J. M. Sogbedji and Y. M. D. Gumedzoé. 2013. The critical period of weed interference in upland rice in northern Guinea savanna: Field measurement and model prediction. *African Journal of Agricultural Research* 18 (17): 1748-1759.
- Ullah, A., Bhatti, M.A., Gurmani, Z.A. and Imran, M., 2007. Studies on planting patterns of maize (*Zea mays L.*) facilitating legumes intercropping. *Journal of Agricultural Research* 45 (2):113-118.
- Verbruggen, N. and C. Hermans. 2008. Proline accumulation in plant: a review. *Amino Acids* 35: 753-759.
- Vitousek, P.M., K. Cassman, C. Cleveland, T. Crews, C.B. Field, N.B. Grimm, R.W. Howarth, R. Marino, L. Martinelli, E.B. Rastetter and J.I. Sprent. (2002). Towards an ecological understanding of biological nitrogen fixation. *Biogeochemistry* 57/58: 1 – 45.
- Vollman, J. H., H. Water, T. Sato, dan P. Schweiger. 2011. Digital image analysis and chlorophyll metering for phenotyping the effect of nodulation in soybean. *J. Computer and Electronics in Agriculture* 75: 190-195.
- Waller, S. S. And J. K. Lewis. 1979. Occurrence of C3 and C4 photosynthetic pathways in North American grasses. *Journal of Range Management* 32 (1): 12-28.
- Weiner, J., H. W. Griepentrog, and L. Kristensen, 2001. Suppression of weeds by spring wheat (*Triticum aestivum*) increases with crop density and spatial uniformity. *J. Appl. Ecol.* 38: 784–790.
- Willey, P.A. 1976, *Properties and Management of Soil in The Tropics*. Jhon Willey and Sons. New York.
- Wilkins, M. B. 1978. Advanced Plant Physiology. Pitman Publishing Limited. Massachusetts. 514p.
- Wilkinson, E. R., 2000. *Plant Environment Interaction*. University of Georgia, Griffin, Georgia. Marcel Dekker, Inc. New York.
- Woldeamlak, A., L. Bastiaans, P.C. Struik. 2001. Competition and niche differentiation in barley (*Hordeum vulgare*) and wheat (*Triticum aestivum*) mixtures under rainfed conditions in the Central Highlands of Eritrea. *Netherlands Journal of Agricultural Science* 49: 95-112.



Yamauchi, T., S. Shimamura, M. Nakazono, dan T. Mochizuki. 2013. Aerenchyma formation in crop species: A review. *Field Crop Research, Article in Press.*

Yilmaz, S., M. Atak, & M. Erayman. 2008. Identification of Advantages of Maize Legume Intercropping over Solitary Cropping through Competition Indices in the East Mediterranean Region. *Turk. J. Agric. For.* 32: 111-119.

Yudono, P., B. D. Kertonegoro, Harsoyo, P. Setyastuti, N. Astuti. 2004. *Penyusunan Model Teknologi Pengembangan Sayuran di Lahan Pasir Pantai Kabupaten Bantul dan Kulon Progo.* Tim Lahan Pasir Pantai Fak. Pertanian UGM. Laporan Akhir (tidak dipublikasikan) 74 hal.

Yudono, P., B. D. Kertonegoro, Z. A. T. Astuti. 2013. *Pengaruh Pemanfaatan Budidaya Pertanian Lahan Pasir Pantai terhadap Perubahan Komunitas Gulma.* Laporan Akhir Penelitian Hibah Jurusan Budidaya Pertanian (tidak dipublikasikan) 17 hal. Fakultas Pertanian UGM. Yogyakarta.

Yuniarti, S. 2015. Respons pertumbuhan dan hasil varietas unggul baru (VUB) padi gogo di Kabupaten Pandeglang, Banten. *Prosiding Seminar Nasional Masyarakat Biodiversitas Indonesia* 1 (4): 848-851.

Yong, L. D., Z. Zhi-an, Z. Dian-jun, J. Li-yan, & W. Yuan-li. 2012. Comparison of Net Photosynthetic Rate in Leaves of Soybean with Different Yield Levels. *Journal of Northeast Agricultural University* 19 (3): 14-19.

Yoshida, S. 1972. Physiology aspects of grain yield. *Annu. Rev Plant Physiol.* 23: 437-464.

Zelalem, A., T. Tekalign, dan D. Nigussie. 2009. Response of potato (*Solanum tuberosum* L.) to different rates of nitrogen and phosphorus fertilization on vertisols at Debre Berhan, in the central highlands of Ethiopia, Afr. J. Pl. Sci. 3 (2):16-24.

Zhang, J., D. L. Smith, W. Liu, X. Chen, and W. Yang. 2011. Effects of shade and drought stress on soybean hormones and yield of main-stem and branch. *African Journal of Biotechnology* 10 (65): 14392-14398.

Zhu, G., S. Peng, J. Huang, K. Cui, L. Nie & F. Wang. 2016. Genetic Improvements in Rice Yield and Concomitant Increases in Radiation-and Nitrogen-Use Efficiency in Middle Reaches of Yangtze River. *Scientific Report.* 1-12.

Zuchri, A. 2007. Optimalisasi hasil tanaman kacang tanah dan jagung dalam tumpangsari melalui pengaturan baris dan perompesan daun jagung. *Jurnal ilmiah* 4 (2): 156-163.

Zomer, R. J., A. Trabucco, R. Coe, and F. Place. 2009. Trees on farm: *Analysis of global extent and geographical patterns of agroforestry.* ICRAF Working Paper no 89. Nairobi, Kenya: World Agroforestry Centre.