

REFERENCE

- Alam S., Seth R.K., Shukla D.N. 2014. Role of blue green algae in paddy crop. *Euro. J. Exp. Bio.*, 4, 24–28.
- Anugroho, F., Kitou, M. 2011. Effect of live hairy vetch and its incorporation on weed growth in a subtropical region. *Weed Biol. Manag.* 11: 1–6.
- Aulakh, M.S., Khera, T.S., and Doran, J.W. 2000. Mineralization and denitrification in upland, nearly saturated and flooded subtropical soil. *Biol. Fertil. Soils.* 31: 162–167.
- Azeez, J.O., Van Averbeke W. 2012. Dynamics of soil pH and electrical conductivity with the application of three animal manures. *Commun. Soil Sci. Plant Anal.*, 43, 865–874.
- Breen, J.L., Hill J.E., Kusanagi T. 1999: Tiller density determines competitive outcome between water-seeded rice (*Oryza sativa* L.) and *Monochoria vaginalis* var. *vaginalis*. *J. Weed Sci. Technol.*, 44, 180–188.
- Buresh, R.J., Reddy, K.R., and Kessel, C.V. 2008. Nitrogen transformations in submerged soils. In *Nitrogen in Agricultural Systems*, Agronomy Monograph 49. American Society of Agronomy Crop Science Society of America, Soil Science Society of America, 677 S. Segoe Rd., Madison, WI 53711, USA.
- Cai Z 2002: Ammonium transformation in paddy soils affected by the presence of nitrate. *Nutr. Cycl. Agroecosys.*, 63, 267–274.
- Cassman, K.G., Dobermann, A.R., Walters, D.T. 2002. Agroecosystems, nitrogen-use efficiency, and nitrogen management. *Ambio.* 31: 132–140.
- Cheng, W., Okamoto, Y., Takei, M., Tawaraya, K., and Yasuda, H. 2015. Combined use of *Azolla* and loach suppressed weed *Monochoria vaginalis* and increased rice yield without agrochemicals. *Org. Agr.* 5: 1–10.
- Cheng W, Sakai H, Nishimura S, Yagi K, Hasegawa T 2010: The low land paddy weed *Monochoria vaginalis* emits N₂O but not CH₄. *Agric. Ecosyst. Environ.*, 137, 219–221.
- Choi, B.S., and Daimon, H. 2008. Effect of hairy vetch incorporated as green manure on growth and N uptake of sorghum crop. *Plant Prod. Sci.* 11: 211-216.
- Clark, M. S., Horwath, W. R., Shennan, C., and Scow, K. M. 1998. Changes in soil chemical properties resulting from organic and low-input farming practices. *Agronomy Journal.* 90 (5): 662–671.
- Datta SK DE 1987: Nitrogen transformation processes in relation to improved cultural practices for lowland rice. *Plant Soil*, 100, 47–69.
- Deshpande, H., and Devasenapathy, P. 2010. Influence of green manure and different organic sources of nutrients on yields and soil chemical properties of

rice (*Oryza sativa* L.) grown under lowland condition. *International Journal of Agricultural Sciences*. 6 (2): 433-438.

Dinnes DL, Karlen DL, Jaynes DB, Kaspar TC, Hatfield JL, Colvin TS, Cambardella CA 2002: Nitrogen management strategies to reduce nitrate leaching in tile-drained Midwestern soils. *Agron. J.*, 94, 153–171.

Dong T, Zhang Y, Zhang Y, Zhang S 2016: Continuous planting under a high density enhances the competition for nutrients among young *Cunninghamia lanceolata* saplings. *Ann. Forest Sci.*, 73, 331–339.

Finney, D.M., and Creamer, N.G. 2008. Weed management on organic farms. North Carolina Cooperative Extension Service.

Fageria, N.K., Baligar, V.C., and Bailey, B.A. 2005. Role of cover crops in improving soil and row crop productivity. *Commun. Soil Sci. Plan. Anal.* 36: 2733–2757.

Fageria, N.K. 2007. Green manuring in crop production. *J. Plant Nutr.* 30: 691–719.

Fanish SA 2017: Impact of green manure incorporation on soil properties and crop growth environment: a review. *World J. Agric. Sci.*, 13, 122–132.

Farooq M, Jabran K, Cheema ZA, Wahid A, Siddique KHM 2011: The role of allelopathy in agricultural pest management. *Pest Manag. Sci.*, 67, 493–506.

Gao, S.J., Zhang, R.G., Cao, W.D., Fan, Y.Y., Gao, J.S., Huang, J., Bai, J., Zeng, N., Chang, D., Katsu-yoshi, S., and Thorup-Kristensen, K. 2015. Long-term rice-rice-green manure rotation changing the microbial communities in typical red paddy soil in South China. *Journal of integrative agriculture*. 14 (12): 2512-2520.

Gaur, A. C., Nilkantan, S., and Dargan, K.S. 2002. Organic Manures. ICAR, New Delhi, India.

Gharde, Y., Singh, P.K., Dubey, R.P., and Gupta, P.K. 2018: Assessment of yield and economic losses in agriculture due to weeds in India. *J. Crop Prot.* 107: 12–18.

Gil JL, Fick WH 2001: Soil nitrogen mineralization in mixtures of eastern gamagrass with alfalfa and red clover. *Agron. J.*, 93, 902–910.

Gilmour JT, Mauromostaukos A, Gale PM, Norman RJ 1998: Kinetics of crop residue decomposition: variability among crops and years. *Soil Sci. Soc. Am. J.*, 62, 750–755.

Godfray, H. C. J., Beddington, J. R., Crute, I. R., Haddad, L., Lawrence, D., Muir, J. F., Pretty, J., Robinson, S., Thomas, S. M., and Toulmin, C. 2010. Food security: the challenge of feeding 9 billion people. *Science*. 327(5967): 812-818.

He JS, Bazzaz FA 2003: Density-dependent responses of reproductive allocation to elevated atmospheric CO₂ in *Phytolacca americana*. *New Phytol.*, 157, 229–239.

- He J, Wolfe-Bellin KS, Schmid B, Bazzaz FA 2005: Density may alter diversity-productivity relationships in experimental plant communities. *Basic Appl. Ecol.*, 6, 505–517.
- Hokazono, S., Hayashi, K. 2012. Comparative life cycle assessment of organic and conventional soybean production in paddy fields under rotational cropping. *J. Life Cycle Ass.* 8: 2–13.
- Hood, R. 2001. Evaluation of a new approach to the nitrogen-15 isotope dilution technique, to estimate crop N uptake from organic residues in the field. *Biology and Fertility of Soils.* 34 (3): 156–161.
- Inubushi K, Wada H, Takai Y 1984: Easily decomposable organic matter in paddy soil (IV). Relationship between reduction process and organic matter decomposition. *Soil Sci. Plant Nutr.*, 30, 189–194.
- Ishikawa-Goto, M., and Tsuyuzaki, S. 2004. Methods of estimating seed banks with reference to long-term seed burial. *J. Plant Res.* 117: 245–248.
- Jiang, P., Xie, X., Huang, M., Zhou, X., Zhang, R., Chen, J., Wu, D., Xia, B., Xiong, H., Xu, F., and Zou, Y. 2016. Characterizing N uptake and use efficiency in rice as influenced by environments. *Plant Prod. Sci.* 19: 96–104.
- Keeney DR, Nelson DW 1982: Nitrogen-inorganic forms. In page A, Miller D, Keeney D (eds) *Methods of soil analysis. Part 2. Chemical and microbiological methods.* Agronomy series no. 9(2). ASA, Madison, Wis., pp 643-698.
- Keeney DR, Sahrawat KL 1986: Nitrogen transformations in flooded soils. A double special issue on nitrogen economy of flooded rice soils. Eds. S K De Datta and W H Patrick, *J. Fert. Res.*, 9, 15–38.
- Kim, S.Y., Gutierrez, J., and Kim, P.J. 2012. Considering winter cover crop selection as green manure to control methane emission during rice cultivation in paddy soil. *Agric. Ecosyst. Environ.* 161: 130–136.
- Kunz CH, Sturm DJ, Varnholt D, Walker F, Gerhards R 2016: Allelopathic effects and weed suppressive ability of cover crops. *Plant Soil Environ.*, 62, 60–66.
- Kuo, S., Huang, B., and Bembenek, R. 2001. Effect of winter cover crops on soil nitrogen availability, corn yield, and nitrate leaching. *Sci. World J.* 1: 22–29.
- Kuo, S., Sainju, U.M., Jellum, E.J. 1997. Winter cover cropping influence on nitrogen in soil. *Soil Sci. Soc. Am. J.* 61: 1392–1399.
- Kuo, S., and Sainju, U.M. 1998. Nitrogen mineralization and availability of mixed leguminous and non-leguminous cover crop residues in soil. *Biol. Fertil. Soils.* 26: 346-353.
- Kruidhof, H.M., Bastiaans, L., and Kropff, M.J. 2008. Ecological weed management by cover cropping: effect on winter weeds and summer weeds establishment in Potato. *Weed Res.* 492–502.

- Larson, W. E., Clapp, C. E., Pierre, W. H. and Morachan, Y. B. 1972. Effects of increasing amount of organic residue on continuous corn. II. Organic carbon, nitrogen, phosphorus, and sulfur. *Agron. J.* 64: 204–208.
- Lee, C. H., Do Park, K., Jung, K. Y., Ali, M. A., Lee, D., Gutierrez, J., and Kim, P. J. 2010. Effect of Chinese milk vetch (*Astragalus sinicus* L.) as a green manure on rice productivity and methane emission in paddy soil. *Agriculture, ecosystems & environment.* 138 (3-4): 343-347.
- Liebl, R., Simmons, F.W., Wax, L.M. and Stoller, E.W. 1992. Effect of cover crop mulches on weed emergence, weed biomass, and soybean (*Glycine max*). *Weed Technol.* 6: 838-846.
- Liebman, M., and Ohno, T. 1997. Crop rotation and legume residue effects on weed emergence and growth: application for weed management. In: Hatfi eld, J.L., Buhler, D.D. Stewart, B.A. (Eds.), *Integrated Weed and Soil Management.* Ann Arbor Press, Chelsea, MI, pp. 181-221.
- Liu, J.X., Peng, S.J., Benjamin Faivre-vuillin, X.Z.H., Zhang, D.Q., Zhou, G.Y. 2008. *Erigeron annuus* (L.) Pers., as a green manure for amelioration soil exposed to acid rain in Southern China. *J Soils Sediments.* 8: 452–460.
- Mohanty S, Nayak AK, Kumar A, Tripathi R, Shahid M, Bhattacharyya P, Raja R, Panda B 2013: Carbon and nitrogen mineralization kinetics in soil of rice-rice system under long term application of chemical fertilizer and farmyard manure. *Eur. J. Soil Biol.*, 58, 113–121.
- Mohler, C.L. and Teasdale, J.R. 1993. Response of weed emergence to rate of *Vicia villosa* Roth and *Secale cereale* L. residue. *Weed Res.* 33: 487-499.
- Murooka, Y., Xu, Y., Sanada, K., Araki, M., Morinaga, T., and Yokota, A. 1993. Formation of root nodules by *Rhizobium huakuii* biovar. rengen bv.nov. on *Astragalus sinicus* cv. Japan. *J. Ferment. Bioeng.* 76: 38-44.
- Ngouajio, N. and Mennan, H. 2005. Weed populations and pickling cucumber (*Cucumis sativus*) yield under summer and winter cover crop systems. *Crop Prot.* 24: 521-526.
- Niggli, U., Fließbach, A., Hepperly, P., & Scialabba, N. 2009. Low greenhouse gas agriculture: mitigation and adaptation potential of sustainable farming systems. *Ökologie & Landbau.* 141: 32-33.
- Nozoe, T., Tachibana, M., Uchino, A., and Yokogami, N. 2009. Effects of ferrous iron (Fe) on the germination and root elongation of paddy rice and weeds. *Weed Biol. Manag.* 9: 20–26.
- Nozoe, T., Shinano, T., Tachibana, M., and Uchino, A. 2010. Tolerance of rice (*Oryza sativa* L.) and *Echinochloa* weeds to growth suppression by rice straw added to paddy soil in relation to iron toxicity. *Plant Prod. Sci.* 13: 314–318.

- Nozoe T, Tazawa J, Uchino A, Miura S 2018: Promotive effect of soil solution on germination of *Monochoria vaginalis* under paddy conditions. *Soil Sci. Plant Nutr.*, 64, 396–405.
- Odhiambo, J.J.O. 2010. Decomposition and nitrogen release by green manure legume residue in different soil types. *Afr. J. Agric. Res.* 5: 90–96.
- Oerke, E.C. 2006. Crop losses to pests. *J. Agric. Sci.* 144: 31–43.
- Paul EA, Clark FE 1989: *Soil Microbiology and Biochemistry*; Academic Press.: Toronto, ON, Canada.
- Ponnamperuma FN 1985: Chemical kinetics of wetland rice soils relative to soil fertility. *In Wetland Soils Characterization, Classification, and Utilization*, Ed. Ponnamperuma FN, pp. 71-89. International Rice Research Institute, Los Banos, Philippines.
- Raj Gopal D., and Sree Ramulu, K.R. 1999. Organic farming in sustaining soil health. *Indian Farming.* 49 (2): 7-10.
- Rasmussen, P. E., Allmaras, R. R., Rhode, C. R. and Roager, N. C., Jr. 1980. Crop residue influences on soil carbon and nitrogen in a wheat-fallow system. *Soil Sci. Soc. Am. J.* 44: 596–600.
- Rasse DP, Ritchie JT, Peterson WR, Wei J, Smucker AJM 2000: Rye cover crop and nitrogen fertilization effects on nitrate leaching in inbred maize fields. *J. Environ. Qual.*, 29, 298–304.
- Sainju, U.M., Singh, B.P., and Whitehead, W.F. 2011. Cover crops and nitrogen fertilization effects on soil carbon and nitrogen and tomato yield. *Canadian Journal of Soil Science.* 80 (3): 523-532.
- Sakuraoka, R., Toriyama, K., Kobayashi, K., Yamada, S., Kamioka, H., and Mori, S. 2018. Incorporation of fallow weed increases phosphorus availability in a farmer's organic rice fields on allophanic Andosol in eastern Japan. *Soil Sci. Plant Nutr.* 64: 300–305.
- Santhoshkumar, M., G. C. Reddy, and P. S. Sangwan. 2017. A review on organic farming-sustainable agriculture development. *Int. J. Pure App. Biosci.* 5 (4): 1277-1282.
- Sarrantonio, M., Gallandt, E. 2003. The role of cover crops in North American cropping systems. *J. Crop Prod.* 8: 53–74.
- Sawicki CR, Scaringelli FP 1971: Colorimetric determination of nitrate after hydrazine reduction to nitrite. *Microchem. J.*, 16, 657–672.
- Schmid B, Harper JL 1985: Clonal growth in grassland perennials I. density and pattern-dependent competition between plants with different growth forms. *J. Ecol.*, 73, 793–808.
- Scialabba, N.E.H., Müller-Lindenlauf, M., 2010. Organic agriculture and climate change. *Renewable Agriculture and Food Systems* 25, 158–169.

- Shepherd, M.A. 2010. The effectiveness of cover crops during eight years of a UK sandland rotation. *Soil Use Manag.* 15: 41–48.
- Sung, J.K., Jung, J.A., Lee, B.M., Lee, S.M., Lee, Y.H., Choi, D.H., Kim, T.W. and Song, B.H., 2010. Effect of incorporation of hairy vetch and rye grown as cover crops on weed suppression related with phenolics and nitrogen contents of soil. *Plant Production Science.* 13 (1): 80-84.
- Tanaka F, Ono S, Hayakasa T 1990: Identification and evaluation of toxicity of rice root elongation inhibitors in flooded soils with added wheat straw. *Soil Sci. Plant Nutr.*, 36, 97–103.
- Tanaka, A., Toriyama, K., Kobayashi, K. 2012. Nitrogen supply via internal nutrient cycling of residues and weeds in lowland rice farming. *Field Crop Res.* 137: 251–260.
- Tang, H., Xiao, X., Tang, W., Lin, Y., Wang, K., and Yang, G. 2014. Effect of winter cover crops residue returning on soil enzyme activities and soil microbial community in double-cropping rice fields. *PLoS ONE.* 9: e100443.
- Teasdale, J.R., and Daughtry, C.S.T. 1993. Weed suppression by live and desiccated hairy vetch. *Weed Sci.* 41: 207-212.
- Tejada M., Gonzalez, J.L., Garcí'a-Martí'nez A.M., and Parrado J. 2008. Effects of different green manures on soil biological properties and maize yield. *Bioresource Technol.* 99 (6): 1758–1767.
- Third, H.S., Rowell, D.L. 1997. Effect of manure and floodwater algae on diurnal fluctuations of floodwater pH and depth of aerobic soil layer under lower land rice conditions. *Plant Soil.* 192: 161–165.
- Tursun N, Isik D, Demir Z, Jabran K 2018: Use of living, mowed, and soil-incorporated cover crops for weed control in apricot orchards. *Agron. J.*, 8, 150.
- Velicka, R., Marcinkeviciene, A., Pupaliene, R., Butkeviciene, L.M., Kosteckas, R., Cekanauskas, S., and Kriauciuniene, Z. 2016. Winter oilseed rape and weed competition in organic farming using non-chemical weed control. *Zemdirbyste-Agriculture.* 103 (1): 11-20.
- Vos, J., Van der Putten, P.E.L., Hussein, M.H., van Dam, A.M., and Leffelaar, P.A. 1998. Field observations on nitrogen catch crops. II: Root length and root length distribution in relation to species and nitrogen supply. *Plant and Soil.* 201 (1): 149–155.
- Wang, J., Zhao, Y., Zhang, J., Zhao, W., Muller, C., and Cai, Z. 2017. Nitrification is the key process determining N use efficiency in paddy soils. *J. Plant Nutr. Soil Sci.* 180: 648–658.
- Watanabe H, Hoshino K, Adachi Y 2017: Effects of poultry manure on soil solution electrical conductivity and early growth of *Monochoria vaginalis*. *Plant Prod. Sci.*, 20, 67–71.

- Wyland LJ, Jackson IE, Schulbach KF 1995: Soil plant nitrogen dynamics following incorporation of mature rye cover crop in lettuce production system. *J. Agric. Sci.*, 124, 17–25.
- Xie, Z., Tu, S., Shah, F., Xu, C., Chen, J., Han, D., Liu, G., Li, H., Muhammad, I., and Cao, W. 2016. Substitution of fertilizer-N by green manure improves the sustainability of yield in double-rice cropping system in south China. *Field crops research*. 188: 142-149.
- Xie, Z., He, Y., Tu, S., Xu, C., Liu, G., Wang H., Cao, W., and Liu, H. 2017. Chinese milk vetch improves plant growth, development and ¹⁵N recovery in the rice-based rotation system of South China. *Scientific Reports*. 7 (1): 1-11.
- Xie, Z., Zhou, C., Shah, F., Iqbal, A., and Ni, G. 2018. The role of Chinese Milk Vetch as cover crop in complex soil nitrogen dynamics in rice rotation system of South China. *Scientific Reports*. 8 (1): 1-11.
- Xuan, T. D., Tsuzuki, E., Terao, H., Matsuo, M., Khanh, T. D., Murayama, S., & Hong, N. H. 2003. Alfalfa, rice by-products and their incorporation for weed control in rice. *Weed Biology and Management*. 3: 137–144.
- Yamawaki K, Matsumura A, Hattori R, Tarui A, Hossain MA, Ohashi Y, Daimon H 2014: Possibility of introducing winter legumes, hairy vetch and faba bean, as green manures to turmeric cropping in temperate region. *Plant Prod. Sci.*, 17, 173–184.
- Yevdokimov IV, Blagodatsky SA 1993: Nitrogen immobilization and remineralization by microorganisms and nitrogen uptake by plants: interactions and rate calculations. *Geomicrobiol. J.*, 11, 185–193.
- Zhu, Z.L., Chen, D.L. 2002. Nitrogen fertilizer use in China-contributions to food production, impacts on the environment and best management strategies. *Nutr. Cycl. Agroecosys*. 63: 117–127.
- Zhu B, Yi L, Hu Y, Zeng Z, Tang H, Yang G, Xiao X 2012: Effects of chinese milk vetch (*Astragalus sinicus* L.) residue incorporation on CH₄ and N₂O emission from a double-rice paddy soil. *J. Integr. Agr.*, 11, 1537–1544.
- Zhu B, Yi L, Hu Y, Zeng Z, Lin C, Tang H, Yang G, Xiao X 2014: Nitrogen release from incorporated ¹⁵N-labelled chinese milk vetch (*Astragalus sinicus* L.) residue and its dynamics in a double rice cropping system. *Plant Soil*, 374, 331-344.
- Zougmore, R., Nagumo, F., Hoshikawa, A. 2006. Nutrient uptakes and maize productivity as affected by tillage system and cover crops in a subtropical climate at Ishigaki, Okinawa, Japan. *Soil Sci. Plant Nutr*. 52: 509-518.