

2.4 List of Publications, Presentations and Reports

(1) Publications (Apr.2001 - Mar.2002)

Subdivision of Natural Environment

- Gu S., Otsuki, K. and Kamichika, M. Apr. 2001: Estimation of Daily Albedo on Tottori Sand Surface, J. of Agricultural Meteorology, 57(1) pp. 1-10
- Nakamoto K., Kamichika, M. and Hayakawa, S. (June 2001): Diurnal changes in atmospheric CO₂ concentration over a sand dune field in a coastal area, Sand Dune Research, 48(1), pp.22-29
- Kimura, R., Ishijima, S. and Yokoyama, T. (June 2001): A comparison between the observed and calculated surface temperature using an infrared thermometer and a heat balance model, Tenki, 48(6), pp. 371-382
- Tang C., Kawai, T., Sakura, Y. and Kamichika, M., Sept. 2001: Water and heat transport in sand dune – A case study in Tottori, Japan, Proceedings of the XXXI International Association of Hydrogeologists Congress, Munich, Germany 10-14 Sept.2001, pp. 799-802
- Gu S., Otsuki, K. and Kamichika, M. (Oct. 2001): Estimation of Mean Daily Soil Temperature on Tottori Sand Dune, Sand Dune Research 48(2), pp.78-85
- Kimura, R. (Dec. 2001): The characteristics of the climate in Okinawa Islands and the effect of artificial factor on regional temperatures, J. Agric. Meteorol, 57(4), pp. 193-200
- Shimose, R., Kimura, R. and Ishijima, S. (Jan. 2002): Seasonal variation of the heat balance in the urban area of Okinawa Island, J. Japan Soc. Hydrol. & Water Resour. 15(1), pp. 51-59

Subdivision of Water Resources

- Odani, H., Yano, T. and Kaneki, R. (Jun. 2001): Estimation of the water vapor flux with the energy balance flux ratio method, Trans. of JSIDRE, 213 pp.1-10 (in Japanese with English summary)
- Kitamura, Y. (Jun. 2001): Actual situation and future issues of water management for arid land irrigated lands, Proc. of Joint Symposium of four Societies Related to Agricultural Environmental Engineering on Water Resources in the 21st Century, pp.346-353
- Kitamura, Y. and Yano, T. (Dec. 2001): Irrigation infrastructure needed to secure self-sufficiency in food in Sub-Saharan Africa, Japanese Journal of Tropical Agriculture, 45 pp.266-274

Subdivision of Plant Ecophysiology

- Sugimoto, Y., Babiker, H. A. A., Saisho, T., Furumoto, T., Inanaga, S. and Kato, M. (May 2001): Chlorinated alkaloids in *Menispermum dauricum* root cultures, J. Org. Chem., 66 (10), pp. 3299-3302
- Ahmed, N. E., Sugimoto, Y., Babiker, A. G. T., Mohamed, O. E., Ma, Y., Inanaga, S. and Nakajima, H. (May 2001): Effects of some isolates of *Fusarium solani* on germination of *Striga hermonthica* (Del.) Benth., Weed Science, 49 (3), pp. 354-358
- Sugimoto, Y., Miyamoto, M., Inanaga, S. and Ahmed, N. E. (Jun. 2001): Non-host plant tissue cultures produce haustorial inducing substance for root parasitic weed *Striga hermonthica*, Recent Research Developments in Phytochemistry, 5, pp. 1-10
- An, P., Inanaga, S., Kafkafi, U., Lux, A. and Sugimoto, Y. (Aug. 2001): Different effect of humidity on growth and salt tolerance of two soybean cultivars, Biologia Plantarum, 44 (3), pp. 405-410
- Ahmed, N. E., Kanan, H. O., Inanaga, S., Ma, Y. and Sugimoto, Y. (Dec. 2001): Impact of pesticide seed treatment on aphids control and wheat yield improvement, Crop Protection, 20 (10), pp. 929-934
- Shamas, G. R., Eneji, A. E., Ahmed, O. S., Al-Rawahi, M., Al-Raisi, F., Ali, M. E. K., Hamamura, K. and Inanaga, S. (Feb. 2002): Influence of mulching and salt content of irrigation water on the performance of fruit vegetables in the arid sandy soil of Oman: Tomato growth and yield, Sand Dune Research, 48(3): 115-120.

- Kato, M., Ogawa, Y., Kozakai, M. and Sugimoto, Y. (Feb. 2002): Bis(8-quinolinolato-*N,O*)platinum(II) and its synthetic intermediate, 8-hydroxyquinolinium dichloro-(8-quinolinolato-*N,O*)platinate(II) tetrahydrate, *Acta Crystallographica*, C58, pp. 147-149
- Babiker, H. A. A., Nakajima, H., Inanaga, S. and Sugimoto, Y. (Mar. 2002): Biological activities of oxoisoaporphines isolated from *Menispermum dauricum* root cultures, In: Series Recent Research Progress in Medicinal Plants, Vol. 4 - Biotechnology and Genetic Engineering (eds. J. N. Govil, P. Anand Kumar & V. K. Singh) SCI TECH Pub., USA, pp. 163-174
- An, P., Inanaga, S., Cohen, Y., Kafkafi, U. and Sugimoto, Y. (Mar. 2002): Salt tolerance in two soybean cultivars, *J. Plant Nutr.*, 25 (3), pp. 407-423

Subdivision of Plant Production

- Shamas, G.R., Eneji, A.E., Ahmad, O.S., Al-Rawahi, M., Al-Raisi, F., Ali, M.E.K., Hamamura, K., and Inanaga, S. (Feb.,2002) : Influence of mulching and salt content of irrigation water on the performance of fruit vegetables in the arid sandy soils of Oman. I: Tomato growth and yield. *Sand Dune Studies* 48:115 – 120.

Subdivision of Revegetation and Grassland Development

- Atsumi, Y., Yamamoto, F., Tamai, S. and Yamanaka N. (Aug. 2001): Ecophysiological responses of three *Salix* species under different water conditions., *J. Jpn. Soc. Reveget. Tech.* 27 (1) pp.102-107 (in Japanese with English summary)
- Yamanaka, N., Zhang, G., Sakamoto, K., Wang, L. and Yoshikawa, K. (Aug. 2001): Effect of nurse plant removal on the seedling survival of *Sabina vulgaris* Ant. in the Mu Us desert, Inner Mongolia, China. *J. Jpn. Soc. Reveget. Tech.* 27(1) pp. 120-124 (in Japanese with English summary)
- Liu, H., Tamai, S. and Furukawa, I. (Sep. 2001): The influence on the growth and biomass of *Populus alba* L. under saline irrigation in sandy soil. *Apl. For. Sci.*10(2) pp.37-44 (in Japanese with English summary)

Subdivision of Land Conservation

- Wen ,G., Voroney , R.P., Schoenau, J.J.,Yamamoto,T. and Chikushi, J. (May.2000): Assesment of ionic quenching on soil ATP bioluminescent reaction. *Soil Biology & Biochemistry*, 33, pp.1-7
- Mangio, H.R, Yamamoto, T., Oad ,F.C., Koondhar, D.M., Abro, Z. A. and Oad, N.L., Apr.2001: Mechanism of salinization in waterlogged condition in the sloped soil condition, *Pakistan Journal of Applied Sciences*, 1 (2) , pp.211-213
- Inoue, M. (May 2001): Development of economical and sustainable agricultural technology in arid and semi-arid areas, *Jour. JSIDRE*, 69(5) pp.521-523 (in Japanese)
- Inoue, M., Shiraishi, H., Kitajima, H., Kakuno, K. and Iijima, T. (May 2001): Progressive Opinions for Agro-Hydro-Technology in Exploitation of Western China, 69(5) pp.528-533 (in Japanese)
- Inoue, M. (June 2001): Water Saving Strategies under an Irrigation System in Arid and Semi-arid Regions, *Sand Dune Research*, 48(2) pp.86-95 (in Japanese with English summary)
- Mori, Y., Kihara, T., Inoue, M. and Fukushima, A. (June 2001): Estimating unsaturated hydraulic conductivity of undisturbed Japanese soils by multi-step outflow experiment, *Trans. JSIDRE*, 213 pp.61-68 (in Japanese with English summary)
- Ikeura,H.,Yamamoto,T. and Inoue, M.(Jul.2001): The Characteristics of Ion Distribution of the Saline Soil in Inter-Dune Lowland in Mu Us Shamo Desert of China , *Journal of Arid Land Studies*,11(2),pp.79-88
- Wen, G., Schoenau, J. J., Yamamoto,T. and Inoue, M. (Sep.2001): A model of oxidation of an elemental sulfur fertilizer in soils, *Soil Science*, 166(9), pp. 607-613
- Nishihara, E., Inoue, M., Kondo, K., Takahashi, K. and Nakata, N. (Sept. 2001): Spinach yield and nutritional quality affected by controlled soil water matric head, *Agricultural Water Management*, 51, pp.

217-229

- Rasiah, V., Imai, M., Yamamoto, T. and Inoue, M. (Oct. 2001): Evaporation losses from dune sand-Influence of column and gravel mulch size-, *Sand Dune Research*, 11(3), pp.177-186
- Wen, G., Mori, T., Yamamoto, T., Chikushi, J. and Inoue, M. (Nov. 2001): Nitrogen Recovery of Coated Fertilizers and Influence on Peanut Seed Quality for Peanut Plants Grown in Sandy Soil: *Communications in Soil Science and Plant Analysis*, 32(19&20), pp.3120-3140
- Hossein, D. S., Mohammadreza, T. and Yamamoto T. (Feb. 2002): Evaluation of Factors affecting emitter clogging of microirrigation in southeast Iran, *Trans. JSIDRE*, (217), pp.1-8,
- Rasiah, V. and Yamamoto, T. (Feb. 2002): Maximum potentially dispersible and stabilizable clays under cropping in soils with inherent textural differences, *Soil Phys. Cond. Plant Growth, Jpn.*, (89), pp.3-14
- Rasiah, V. and Yamamoto, T. (Feb. 2002): *Review*, Mulching, Evaporation, and salinity interrelation in an arid/semi-arid environment, *Rural and Environmental Engineering*, (42), pp.36-43
- Takeshita, Y., Yagi, K., Mori, T. and Inoue, M. (Feb. 2002): Determination of soil hydraulic properties of unsaturated sandy soil using in situ permeability tests, *Journal of Groundwater Hydrology*, 44(1), pp.21-33

(2) Presentations (Apr.2001 - Mar.2002)

Subdivision of Natural Environment

- Matsuki, R., Okada, S. and Kamichika, M. (June 2001): Property of local meteorology in Tottori sand dune, Proc. of Agricultural Meteorology 2001, pp.132 (in Japanese)
- Okatsu, K., Ushijima, Y., Kato, T. and Kamichika, M. (June 2001): Property of soil water content in bare sand surface, Proc. of Agricultural Meteorology 2001, pp. 134 (in Japanese)
- Kato, T. and Kamichika, M. (June 2001): Estimation of evapotranspiration over the roughness sorghum field (3), Proc. of Agricultural Meteorology 2001, pp. 135 (in Japanese)
- Nakamoto, K., Kamichika, M., Hayakawa, S. and Yamamoto, T. (June 2001): Change of CO₂ concentration within the soil and in the surface with soil water percolation in Tottori sand dune field, Proc. of Agricultural Meteorology 2001, pp. 136 (in Japanese)
- Hara, Y., Hayashi, T., Waka, R. and Kamichika, M. (Nov. 2001): Control of the Light Intensity of Sunlight-Lamp by use of a Liquid Crystal Film UMU, Proceedings of JSES/JWEA Joint Conference 2001
- Hayashi, T., Hara, Y., Waka, R., Kamichika, M., Tetsui, T., Liu, W., Wang, L. H., Tian, D. and Zhang G.S. (Nov. 2001): Measurement of Solar Irradiation in Inner Mongolia via INMARSAT Satellite, Proceedings of JSES/JWEA Joint Conference 2001
- Okatsu, K., Kimura, R. and Kamichika, M. (Nov. 2001): Study on the water balance in the soil surface, Agricultural Meteorology of Chugoku and Shikoku 2001, pp. 6-7 (in Japanese)
- Kawai, T., Tang, C. and Kamichika, M. (Nov. 2001): Property of rainfall percolation in the soil and vegetation surface in Tottori sand dune, Agricultural Meteorology of Chugoku and Shikoku 2001, pp. 10-11 (in Japanese)
- Okada, S., Kawamoto, T. and Kamichika, M. (Nov. 2001): Change of spectral reflectance and transmission due to the radiation condition under the paper mulching, Agricultural Meteorology of Chugoku and Shikoku 2001, pp. 38-39 (in Japanese)
- Ibaraki, Y., Hayakawa, S. and Kamichika, M. (Nov. 2001): Fundamental study on the identification of water stress using the chlorophyll fluorescence method, Agricultural Meteorology of Chugoku and Shikoku 2001, pp.8-9 (in Japanese)
- Nakamoto, K., Kamichika, M. and Hayakawa, S. (Nov. 2001): CO₂ profile within the soil in bare sand surface, Agricultural Meteorology of Chugoku and Shikoku 2001, pp. 68-69 (in Japanese)

Subdivision of Water Resources

- Yang, S.L., S., Yano, T and Kitamura, Y. (Jul. 2001): Effect of irrigation water quality on evapotranspiration from orange tree, Proc. of the Annual Meeting of JSIDRE, pp.88-89 (in Japanese)
- Kitamura, Y. and Yano, T. (Jul. 2001): Importance of irrigation judging from the present situation and future prospect of food supply, Proc. of the Annual Meeting of JSIDRE, pp.558-559
- Takeuchi, S., Hashizume, H. Sasami, I. and Yano, T. (Jul. 2001): Automatic irrigation based on the sap flow monitoring -Application of sap flow measurement to irrigation management (VI)-, Proc. of the Annual Meeting of JSIDRE, pp. 516-517 (in Japanese)
- Yang, S.L., Takeuchi, S., Yano, T and Kitamura, Y. (Sept. 2001): Evapotranspiration from citrus trees growing in sandy soil under drip irrigation with saline water, Desert Technology VI Conference, Urumqi, China, pp.138-139
- Chiwaya, R., Kitamura, Y. and Yano, T. (Oct. 2001): Water balance and runoff characteristics of dambo catchments, Proc. of Annual Meeting of JSIDRE, Branch of Chugoku-Shikoku, pp.102-104

Kitamura, Y., Yano, T., Yasuda, S. and Oba, T. (Nov. 2001): Mechanism of secondary salinization and remedial measures in irrigated lands under rice-based cropping system in Central Asia - Research on water management to prevent secondary salinization in arid land -, 8th JIRCAS International Symposium on Water for Sustainable Agriculture in Developing Regions, Tukuba, Japan, p.28

Subdivision of Plant Ecophysiology

Sugimoto, Y. (Jun. 2001): Progress in understanding the mode of action of germination stimulants, The 7th International Parasitic Weed Symposium, plenary lecture

Sugimoto, Y., Yabuta, S., Kinoshita, H., Inanaga, S. and Itai, A. (Jun. 2001): Identification of ACC synthase and ACC oxidase genes in germination *Striga hermonthica* seeds, Proc. 7th Intl. Parasitic Weed Symposium, pp. 106-109

Babiker, A. G. T., Sauerborn, J., Bangerth, F., Wegmann, K., Geiger, H. H., Sugimoto, Y. and Inanaga, S. (Jun. 2001): Influence of conditioning period and GR24 on respiration, ethylene biosynthesis and germination of *Striga hermonthica*, Proc. 7th Intl. Parasitic Weed Symposium, pp. 114-117

Xu, G., Kafkafi, U., Wolf, S. and Sugimoto, Y. (Aug. 2001): Mother plant nutrition status and growing condition affect assimilate and emergence quality of hybrid sweet pepper seeds, Proc. 14th Plant Nutrition Colloquium, pp. 296-297

Sugimoto, Y., Yasuda, N., Inanaga, S. and Yoneyama, K. (Sep. 2001): Isolation of strigol, a germination stimulant for root parasitic weeds, from root culture of non-host plant *Menispermum dauricum*, Abstracts of the 36th Annual Meeting of the Jpn. Soc. for the Chemical Regulation of Plants, p. 111 (in Japanese)

Chae, S., Fujimoto, Y., Yoneyama, K., Takeuchi, Y. and Sugimoto, Y. (Sep. 2001): Promotive effect of fluridone on seed germination of *Striga asiatica*, a root parasitic weed, Abstracts of the 36th Annual Meeting of the Jpn. Soc. for the Chemical Regulation of Plants, p. 113 (in Japanese)

Uematsu, K., Sugimoto, Y., Yoneyama, K. and Fukui, Y. (Oct. 2001): PKA like genes from *Orobancha minor* Smith, Abstracts of Annual Meeting of the Japanese Biochemical Society, p. 908 (in Japanese)

Babiker, H. A. A., Sugimoto, Y. and Inanaga, S. (Oct. 2001): Biosynthesis of chlorine containing alkaloids in *Menispermum dauricum* root cultures, Proc. of the 1st Arabic Chemistry Conference, p. 11

Tsuji, W., Inanaga, S., Sugimoto, Y., Morita, S. and Ali, M. E. K. (Oct. 2001): Morphological and physiological responses of root system to water stress in two sorghum cultivars, Proc. of the 6th ISRR Symposium, p. 316-317

Hattori, T., Lux, A., Tanimoto, E., Luxova, N., Sugimoto, Y. and Inanaga, S. (Oct. 2001): The effect of silicon on the growth of sorghum under drought stress, Proc. of the 6th ISRR Symposium, p. 348-349

Sugimoto, Y., Sonobe, K., Yasuda, N. and Inanaga, S. (Jan. 2002): Purification of germination stimulant for *Striga hermonthica* from *Stephania cepharantha* root culture, Abstracts of the 2nd Meeting of Japan Society for Bioscience, Biotechnology and Agrochemistry, Chu-shikoku Branch, p. 9 (in Japanese)

Subdivision of Plant Production

Hamamura, K. and Shamas, G.R. (Sept.,2001) : Usefulness of leguminous crops in arid land. Proceedings of abstracts, Desert Technology VI International Conference, Urumqi, China, p.57, p.68

Subdivision of Revegetation and Grassland Development

Yoshikawa, K., Wen, G., Sakamoto, K., Ninomiya, I., Yamanaka, N. and Ohte, N. (Apr. 2001): Effect of drought on underground water table in the Mu us desert, Inner Mongolia, China, Proc. of Annual Meeting of the Jap. For. Soc. 2001, p.606 (in Japanese)

Kobayashi, T., Tejima, S., Yamanaka, N., Tamai, S., Fernando, P. and Antonio, R. (June 2001): The relationship between the floristic landscape and the history of landuse of Pau Dos Ferros in the state of

- Rio Grande do Norte, Brasil. Proc. of Annual Meeting of The Jap. Soc. of Tropical Ecology. 2001, p.22 (in Japanese)
- Atsumi, Y., Yamamoto, F., Tamai, S. and Yamanaka N. (Aug. 2001): Ecophysiological responses of three *Salix* species under different water conditions., J. Jpn. Soc. Reveget. Tech. 27 (1) pp.102-107 (in Japanese with English summary)
- Yamanaka, N., Zhang, G., Sakamoto, K., Wang, L. and Yoshikawa, K. (Aug. 2001): Effect of nurse plant removal on the seedling survival of *Sabina vulgaris* Ant. in the Mu Us desert, Inner Mongolia, China. J. Jpn. Soc. Reveget. Tech. 27(1) pp. 120-124 (in Japanese with English summary)
- Yamanaka, N.(March 2002): Plant – Plant interaction observed in the regeneration process of Plant community in arid areas., Proc. of Annual Meeting of The Ecol. Soc. Jpn. 49, p.54 (in Japanese)
- Okazaki, J., Azegami, E., Nakamura, T., Umebayashi, M., Kinoshita, E., Fukuhara, T. and Yamanaka, N. (March 2002): Sex expression and flowering phenology of the sub-dioecious tropical shrub *Dodonaea viscosa* (Sapindaceae)., Proc. of Annual Meeting of The Ecol. Soc. Jpn. 49, p.252 (in Japanese)

Subdivision of Land Conservation

- Morii, T., Matsumoto, S., Mori, T., Takeshita, Y. and Inoue, M. (June 2001): Measurement of hydraulic conductivity of subsurface soil by using the well permeameter method, Proceeding of the thirty-sixth Japan National Conference on Geotechnical Engineering, pp.1241-1242
- Kimura, M., Toride, N. and Inoue, M. (July 2001): Solute transport during water infiltration into a Tottori dune sand, Proc. of Annual Meeting of JSIDRE, pp.228-229 (in Japanese)
- Imai, M., Rasiah, V., Yamamoto, T. and Inoue, M. (July 2001): Evaporation losses from mulched dune sand columns as influenced by gravel mulch and column size, Proc. of Annual Meeting of JSIDRE, pp.242-243 (in Japanese)
- Cho, H., de Rooij, G.H. and Inoue, M. (July 2001): Finger flow intrusion into capillary fringe and breakthrough, Proc. of Annual Meeting of JSIDRE, pp.264-265 (in Japanese)
- Morii, T., Mori, T., Matsumoto, S., Takeshita, Y. and Inoue, M. (July 2001): Simple and accurate in-situ permeability test using well permeameter, Proc. of Annual Meeting of JSIDRE, pp.482-483 (in Japanese)
- Sakaguchi, Y., Yamamoto, T., Inoue, M. and Shimizu, T. (July 2001): Monitoring of movement of water, pressure, salt in root zone under salt irrigation, Proc. of Annual Meeting of JSIDRE, pp.522-523 (in Japanese)
- Hossein, D. S., Yamamoto T., Keshavarz,A. (July 2001) : Estimation of Evapotranspiration and Improvement of Water Use Pattern in Iran, Proc. of Annual Meeting of JSIDRE, pp.562-563(in Japanese)
- Inoue, M. (July 2001): Measurement of soil water content and salt concentration using TDR method, Proc. of Japanese Society of Sand Dune Research, 48, pp.8-9 (in Japanese)
- Yamamoto, T. Wen, G., Rasiah,V. and Yamada, M. (Sept. 2001):Discussion on application of artificial zeolite and irrigation scheduling for drip irrigation-Sustainable development of irrigation system in arid alnds-(2), Proc. Chugoku-Shikoku branch of Annual Meeting of JSIDRE, pp.153-154(in Japanese)
- Nakashima, C., Wen, G., Yamamoto, T. and Inoue, M. (Sept. 2001): Effect of coated fertilizer and artificial zeolite on corn cultivation in sandy fields, Proc. Chugoku-Shikoku branch of Annual Meeting of JSIDRE, pp.150-152(in Japanese)
- Fujimaki, H. and Inoue, M. (Nov. 2001): One dimensional water, heat, solute transport simulation software WASH_1D in soil, Symposium of Soil Science Society, 42, pp.22-23 (in Japanese)

(3) Reports (Apr.2001 - Mar.2002)

Subdivision of Revegetation and Grassland Development

Yamanaka, N. (Mar. 2001): Studies on afforestation of hardwood in Pine forests damaged by pine wilt disease on coastal sand dunes, Report for Monbusho Grant-in Aid for Scientific Research (C) (2), pp.77 (in Japanese with English Summary)

Subdivision of Plant Ecophysiology

Sugimoto, Y. (Mar. 2002): Control of parasitic weed by inducing suicidal germination, Report for Monbusho Grant-in Aid for Scientific Research (B) (in Japanese)

Subdivision of Land Conservation

Yamamoto, T., Utsunomiya, T. (Mar. 2002) : Studies on water quality of irrigation water resources in the Tohoku Irrigation Project Areas, The 2000 Annual Report of Grant-in-Aid for the Ministry of Forestry and Fisheries, pp.117-137 (in Japanese)

Yamamoto, T., Yuya, A. Wen, G. and Nakashima, C. (Mar. 2002): Soil physical properties and irrigation schedules, Final research report on improvement of salinity soil by using artificial zeolite, pp.49-62 (in Japanese)