

3.4 List of Publications, Presentations and Reports

(1) Publications (Apr.1996-Mar.1997)

Subdivision of Natural Environment

- Iwasaki, M., Ito, K., Mitani, S. and Kamichika, M. (Apr.1996) : Feasibility of usage of recycle paper mulching in upland field, *Journal of the Japanese Society of Agricultural Technology Management*, 3(1) pp.27-33 (in Japanese)
- Li, N., Hayakawa, S., Gu, W., Kamichika, M., Tani, H. and Yamamoto, H. (Jun.1996) : The characteristics of spectral reflectance of accumulated snow surface polluted by dust in air, *Jour. Japan Soc. Remote Sensing*, 16(3), pp.46-55 (in Japanese with English summary)
- Zhou, J., Yamamoto, T., Otsuki, K. and Kamichika, M. (Jun.1996) : Relation between properties of climate and land utilization in the Inner Mongolia, China, *Sand Dune Research*, 43(1), pp.7-15 (in Japanese with English Summary)
- Ito, K., Otsuki, K. and Kamichika, M. (Sep.1996) : Estimation of concentration of Microcystis by spectral sensor, *Jour. Japan Soc. Hydrol. & Water Resour.*, 9(5), pp.457-462 (in Japanese with English Summary)
- Ito, K., Otsuki, K. and Kamichika, M. (Sep.1996) : The independent estimation of vegetation cover rates and vegetation vigor using spectral reflectance, *Jour. Japan Soc. Remote Sensing*, 16(4), pp.41-49 (in Japanese with English Summary)
- Otsuki, K., Oue, H. and Tsutsui, A. (Oct.1996) : Climatological features and agricultural productivity in the Aral Sea basin, *Jour.JSIDRE*, 64(10), pp.1007-1011 (in Japanese)
- Torii, K., Yamamoto, T., Kamichika, M., Otsuki, K., Hayashi, S., Shinmura, Y., Hoshi, T., Keshavarz, A. and Pazira, E. (Nov.1996) : Application of satellite image data to large-scale water use system in Arid Areas of Iran, *Proceedings of the 17th Asian Conference on Remote Sensing*, Colombo, Sri Lanka, pp.1-6 (Colombo, Sri Lanka)
- Ito, K., Otsuki, K. and Kamichika, M. (Mar.1997) : Analysis of the perpendicular structure of vegetation by spectral reflectance in the visible and near infrared, *Journal of Agricultural Meteorology*, 52(5), pp.567-570
- Otsuki, K. and Mushiake, N. (Mar.1997) : Studies on monitoring land and water management in Pakistan, *Journal of Agricultural Meteorology*, 52(5), pp.665-668
- Otsuki, K. (Mar. 1997) : Estimation of actual evapotranspiration using complementary relationship, *Regional Environment and Irrigation & Drainage* (Edited by Maruyama, T.), Hatachi Nogyo Shinkokai, Tokyo, pp.210-214 (in Japanese)

Subdivision of Water Resources

- Yuyama, Y., Yoshino, H. and Kitamura, Y. (Apr.1996) : Flood mitigation effect of paddy fields, *Proc. of Drainage workshop of ICID, Slovenia*
- Qiu, G. Y., Momii, K. and Yano, T. (Jun.1996) : Estimation of plant transpiration by imitation leaf temperature - Theoretical consideration and field verification (I) -, *Trans. of JSIDRE*, 183, pp.47-56
- Odani, H., Yano, T. and Arakawa, F. (Aug.1996) : A necessary condition to fit empirical equations to measured temperature and water vapor pressure profiles in the Bowen ratio energy balance method, *Trans. of JSIDRE*, 184, pp.145-152 (in Japanese)
- Ogino, Y., Murashima, K. and Kitamura, Y. (Aug.1996) : Drainage in Asia (I) - Rice-based farming in the humid tropics, *Rural and Environmental Engineering*, 31, pp.4-12

- Qiu, G. Y., Momii, K. and Yano, T. (Oct.1996) : Estimation of plant transpiration by imitation leaf temperature - Application of imitation leaf temperature for detection of crop water stress (II) -, Trans. of JSIDRE, 185, pp.43-49
- Yamada, M., Yano, T. and Watanabe, S. (Dec.1996) : Accuracy of a finite element method in analyzing soil moisture behavior irrigated from a line source, Bull. Fac. Agric., Tottori Univ., 49, pp.47-53 (in Japanese)
- Takeuchi, S., Momii, K. and Yano, T. (Dec.1996) : Measurement of crop transpiration based on sap flow measurement, Trans. of JSIDRE, 186, pp.119-126 (in Japanese)
- Kitamura, Y. (Feb.1997) : Ecological environment of West Africa, Restoration of ecological environment and rehabilitation of rural communities, Norin-Tokei Kyokai, pp.74-80, 125-133, 134-153 (in Japanese)
- Kitamura, Y., Murashima, K. and Ogino, Y. (Feb.1997) : Drainage in Asia (II) - Manifold drainage problems and their remedial measures in India -, Rural and Environmental Engineering, 32, pp.22-41

Subdivision of Plant Ecophysiology

- Ali, I., Kafkafi, U., Yamaguchi, I., Sugimoto, Y. and Inanaga, S. (Apr.1996) : Effects of low root temperature on sap flow rate, soluble carbohydrates, nitrate contents and on cytokinin and gibberellin levels in root xylem exudate of sand-grown tomato, J. Plant Nutr., 19 (2 & 3), pp.619-634
- Matsuura, A., Inanaga, S. and Sugimoto, Y. (Jun.1996) : Mechanism of interspecific differences among four gramineous crops in growth response to soil drying, Jpn. J. Crop Sci., 65 (2), pp.352-360
- Inanaga, S. (Jun.1996) : A trial of restoration of environment on the Loess Plateau in China, URBAN GREEN TECH (21), pp.12-25 (in Japanese)
- Inanaga, S., Kitamura, H., Matsuura, A., Hirasawa, T. and Sugimoto, Y. (Jun.1996) : Interspecific differences of drought tolerance among soybean, peanut and common millet during vegetative growth in Tottori Sand Dune, Sand Dune Research, 43 (1), pp.29-35
- Sakiyama, R., Mine, Y. and Inanaga, S. (Aug.1996) : Disinfection of recirculating nutrient solutions by slow sand filtration at its practical use, Agriculture and Horticulture, 71 (8), pp.907-910 (in Japanese)
- Ma, Y., Babiker, A. G. T., Ali, I. A., Sugimoto, Y. and Inanaga, S. (Oct.1996) : *Striga hermonthica* (Del.) Benth germination stimulant(s) from *Menispermum dauricum* (DC.) root culture, J. Agr. Food Chem., 44 (10), pp.3355- 3359
- Ali, I. A., Kafkafi, U., Yamaguchi, I., Sugimoto, Y. and Inanaga, S. (Nov.1996) : Transpiration drop after sudden decrease in root temperature, Proc. Intl. Symp. on Evapotranspiration and Irrigation Scheduling, pp.442-447
- Murota, K., Sugimoto, Y. and Inanaga, S. (Dec.1996) : Molecular genetic approaches to improving salt stress tolerance in plants, Proc. Intl. Symp. on Development of Basic Technology for Sustainable Agriculture under Saline Conditions, pp.37-44
- Farah, S. M., Inanaga, S. and Takeuchi, Y. (Dec.1996) : Fertilizer management under saline conditions, Proc. Intl. Symp. on Development of Basic Technology for Sustainable Agriculture under Saline Conditions, pp.45-52
- Sugimoto, Y., Wigchert, S., Thuring, J. W. and Zwanenburg, B.(Mar.1997) : The first total synthesis of the naturally occurring germination stimulant sorgolactone, Tetrahedron Lett., 38 (13), pp.2321-2324

Subdivision of Plant Production

- Tomemori, H., Toyama, M. and Takeuchi, Y. (Dec.1996) : The effects of diluted sea water application on spinach cultivation, Proc. Sand Dune Research, 43(2), pp.15-18 (in Japanese with English Summary)

Tomemori, H., Ikejiri, A. and Takeuchi, Y. (Mar.1996) : The effect of peeling pericarps on germination and emergence of spinach, *Environmental Control in Biology*, 35(1), pp.35-39 (in Japanese with English Summary)

Subdivision of Revegetation and Glassland Development

Yamanaka, N., Nagamasu, H. and Umebayashi, M. (Dec.1996) : Seedlings of Woody Plants in the Kyoto University Forest in Ashiu 6. Lauraceae, Icacinaceae and Rhamnaceae, *J. Phytogeogr. & Taxon*, 44, pp.25-42 (in Japanese with English summary)

Yamanaka, N., Takaya, K. and Kawanabe, S. (Feb.1997) : Dead forms and mortality factors of woody plants in a mixed forest of *Cryptomeria japonica* var. *radicans* and *Fagus crenata*, *J. Jap. For. Soc.* 79(1), pp.14-21 (in Japanese with English Summary)

Subdivision of Land Conservation

Inoue, M., Hopmans, J. M., Clausnitzer, V. and Simunek, J. (May 1996) : *In-situ* estimation of soil hydraulic functions using a multi-step soil-water extraction technique, The XXI General Assembly of European Geophysical Society, C322. (the Hague, Netherlands)

Inoue, M., Karatsu, Y., Iimura, K., Honna, T., Yamamoto, T. and Yamamoto, S. (Jun. 1996) : Simultaneous measurement of solute and water transport during leaching process in sand under unsaturated condition, *Sand Dune Research*, 43(1), pp.22-28 (in Japanese with English Summary)

Zhou, J., Yamamoto, T., Otsuki, K. and Kamichika, M. (Jun.1996) : Relation between properties of climate and land utilization in the Inner Mongolia, China, *Sand Dune Research*, 43(1), pp.7-15 (in Japanese with English Summary)

Naruoka, M., Yamamoto, T., Tanaka, A. and Inoue, M. (Nov.1996) : Two-dimensional capillary supply of drip irrigation, *Proceedings of the International Evapotranspiration and Irrigation Scheduling Conference*, pp.794-799 (San Antonio, Texas)

Torii, K., Yamamoto, T., Kamichika, M., Otsuki, K., Hayashi, S., Shinmura, Y., Hoshi, T., Keshavarz, A. and Pazira, E. (Nov.1996) : Application of satellite image data to large-scale water use system in Arid Areas of Iran, *Proceedings of the 17th Asian Conference on Remote Sensing*, Colombo, Sri Lanka, pp.1-6 (Colombo, Sri Lanka)

Honna, T., Yamamoto, S., Endo, T., Inoue, M., Iimura, K. and Xinmin, D. (Dec.1996) : Characteristics of irrigated soils in Wuxing Cun of Ninxia along Yellow river basin, -physicochemical characteristics of soils-, *Sand Dune Research*, 43(2), pp.1-8 (in Japanese with English Summary)

(2) Presentations (Apr.1996-Mar.1997)

Subdivision of Natural Environment

- Otsuki, K., Kimura, R. and Kamichika, M. (Jun.1996) : Studies on the evaluation of evapotranspiration using Bulk method, Proc. of Annual Meeting of JSIDRE, pp.412-413 (in Japanese)
- Ikeura, H., Wei, J., Yamamoto, T., Otsuki, K., Inoue, M. and Komamura, M. (Jun.1996) : Investigation of groundwater in the Mu Us Shamo Desert of China -sustainable development in irrigated agriculture in arid land(III)-, Proc. of JSIDRE, pp.430-431 (in Japanese)
- Torii, K., Yamamoto, T., Kamichika, M., Hayashi, S., Shinmura, Y. and Keshavarz, A. (Jun.1996) : Application of satellite image data to large-scale water use system in arid areas of Iran -sustainable development in irrigated agriculture in arid land(II)-, Proc. of JSIDRE, pp.109-110 (in Japanese)
- Okada, S., Ito, K., Otsuki, K. and Kamichika, M. (Jul.-Aug.1996) : Change of Tottori Sand Dunes analyzed using aircraft pictures, Proc. of Agr. Met. Japan 1996, 9, pp.30-31 (in Japanese)
- Otsuki, K., Matsuoka, K., Ito, K. and Kamichika, M. (Jul.-Aug.1996) : Spectral reflectance of the mixed surfaces of vegetation, sand and salt, Proc. of Agr. Met. Japan 1996, 9, pp.34-35 (in Japanese)
- Abe, Y., Otsuki, K. and Kamichika, M. (Jul.-Aug.1996) : Nocturnal water movement of Tottori Sand Dunes, Proc. of Agr. Met. Japan 1996, pp.94-95 (in Japanese)
- Ito, K., Otsuki, K. and Kamichika, M. (Jul.1996) : Analysis of perpendicular structure of vegetation by spectral reflectance in visible and near infrared, Abstract of Intl. Symposium "Food production and environmental improvement under global climate change", p.51
- Otsuki, K. and Mushiake, N. (Jul.1996) : Studies on monitoring land and water management in Pakistan, Abstract of Intl. Symposium "Food production and environmental improvement under global climate change", p.56
- Kamichika, M., Okada, S., Otsuki, K. and Kondo, M. (Jul.1996) : Changes of climate and sand movement by afforestation in Tottori Sand Dunes, Abstract of Intl. Symposium "Food production and environmental improvement under global climate change", p.67
- Zhou, J. Z., Otsuki, K., Kamichika, M. and Yamamoto, T. (Nov.1996) : Comparison of climate and plant productivity between Iran and Inner Mongolia of China, Agricultural Meteorology of Chugoku and Shikoku, 9, pp.18-21 (in Japanese)
- Gu, S., Yanagidani, T., Otsuki, K. and Kamichika, M. (Nov.1996) : The basic study about radiation on sand land -Radiation on the sand surface and vegetation (I)-, Agricultural Meteorology of Chugoku and Shikoku, 9, pp.26-29
- Abe, Y., Otsuki, K. and Kamichika, M. (Nov.1996) : Water movement near the sand surface of Tottori Sand Dune, Agricultural Meteorology of Chugoku and Shikoku, 9, pp.30-33 (in Japanese)
- Yanagidani, T., Otsuki, K., Kamichika, M., Iwasaki, M. and Ito, K. (Nov.1996) : Effect of paper mulch on the micrometeorological control (I) -Effect on germination of summer vegetation-, Agricultural Meteorology of Chugoku and Shikoku, 9, pp.42-45 (in Japanese)
- Otsuki, K. (Mar. 1997) : Salinization of agricultural land in Pakistan, Proc. Research Forum of Global Environment, pp.7-10

Subdivision of Water Resources

- Hiroshige, H., Yano, T., Takeuchi, S. and Kawaharada, R. (Jun.1996) : Irrigation scheduling based on crop transpiration - Application of stem flow measurement to irrigation management (I), Proc. of Annual Meeting of JSIDRE, pp.448-449 (in Japanese)

- Takeuchi, S., Kawaharada, R., Hiroshige, H. and Yano, T. (Jun.1996) : Comparison of leaf temperature (CWSI), transpiration and yield for irrigation scheduling - Application of stem flow measurement to irrigation management (II), Proc. of Annual Meeting of JSIDRE, pp.450-452 (in Japanese)
- Kitamura, Y., Murashima, K., Ogino, Y. and Smedema, L. K. (Jun.1996) : The present situation and issues of drainage in agricultural lands in India - Drainage survey in monsoon areas in Asia (II) -, Proc. of Annual meeting of JSIDRE, pp.352-352 (in Japanese)
- Takeuchi, S., Yasuda, S., Kawaharada, R. and Yano, T. (Oct.1996) : Irrigation management of green pepper in a greenhouse by using crop transpiration, Proc. of Annual Meeting of JSIDRE, Branch of Chugoku-Shikoku, pp.130-132 (in Japanese)

Subdivision of Plant Ecophysiology

- Matsuura, A., Inanaga, S. and Sugimoto, Y. (Apr.1996) : Effects of low water potential on root growth among three gramineous crops, Jpn. J. Crop Sci. 65 Extra issue 1, pp.212-213 (in Japanese)
- Farah, S., M., Ali, I. A. and Inanaga, S. (Aug.1996) : The role of climate and cultural practices on land degradation and desertification with reference to rainfed agriculture in the Sudan, Fifth Intl. Conference on Desert Development, pp.19
- Sugimoto, Y., Wigchert, S., Thuring, J. W., Kemperman, G., Nefkens, G. and Zwanenburg, B. (Oct. 1996) : Synthesis of all 8 stereoisomers of Sorgolactone, NSR School of Research 6th Symposium, pp.61

Subdivision of Plant Production

- Toyama, M. and Iiyama, T.(Apr.1996) : Water saving cultivation of vegetables in the United Arab Emirates, Proc.of 12th meeting of Jap.Assoc.Middle East Studies, pp.27-28 (in Japanese)
- Yamane, K. and Toyama, M.(Apr.1996) : Growing citrus seedlings in Egypt, Proc.of 12th meeting of Jap.Assoc.Middle East Studies, pp.29-30 (in Japanese)
- Takeuchi, Y., Odaira, H., Okamoto, T. and Kanno, T.(1996): Effects of filtrate from microorganism culture solution on *Phalaenopsis* growth, J. Jap. Soc. Hort. Sci.,65, Suppl.1, pp.378-379 (in Japanese)

Subdivision of Revegetation and Glassland Development

- Yoshii, T. and Tamai, S. (Apr.1996) : Composition structure of sand dune afforestation area, Proc. of Annual Meeting of The Jap. For. Soc.1996, pp.150 (in Japanese)
- Kawasaki, E., Yamanaka, N. and Tamai, T. (Oct.1996) : Vegetation structure and succession of coastal pine forests in Tottori Prefecture, Proc. of Annual Meeting of Kansai Branch of The Jap. For. Soc. 1996, pp.32 (in Japanese)

Subdivision of Land Conservation

- Fujimaki, H., Yamamoto, T., Inoue, M. and Yoshinaga, M. (Jun.1996) : Salt accumulation in soil column under cyclic variation meteorological condition in growth cabinet, Proc. of JSIDRE, pp.248-249 (in Japanese)
- Ikeura, H., Wei, J., Yamamoto, T., Otsuki, K., Inoue, M. and Komamura, M. (Jun.1996) : Investigation of groundwater in the Mu Us Shamo Desert of China -sustainable development in irrigated agriculture in arid land(III)-, Proc. of JSIDRE, pp.430-431 (in Japanese)
- Torii, K., Yamamoto, T., Kamichika, M., Hayashi, S., Shinmura, Y. and Keshavarz, A. (Jun.1996) : Application of satellite image data to large-scale water use system in arid areas of Iran -sustainable development in irrigated agriculture in arid land(II)-, Proc. of JSIDRE, pp.109-110 (in Japanese)

- Yamamoto, T. and Agodzo, S. K. (Oct.1996) : Desertification in tropical savanna zone in the Republic of Ghana-sustainable development in irrigated agriculture in arid land(IV), Proc. of JSIDRE, Branch of Chugoku-Shikoku, 51, pp.109-110 (in Japanese)
- Wei, J. and Yamamoto, T. (Oct.1996) : Sand fixation to drift sand dune due to aerial seedling in the Yekezhao League of China, Proc. of JSIDRE, Branch of Chugoku-Shikoku, 51, pp.139-141 (in Japanese)
- Takeuchi, Y. and Inoue, M. (Jul.1996) : Water management in sand vegetable cultivation using a buried-type electrical tensionmeters -Comparison with a timer control in leaf lettuce cultivation-, Proc. of Sand Dune Research 1996, pp.8-9 (in Japanese)
- Inoue, M. (Jul.1996) : Simultaneous measurement of solute and water transport in unsaturated soil, 35th Annual Conference in Society of Instrument and Control Engineers, pp.385-386 (in Japanese)
- Inoue, M. (Oct.1996) : Estimation of soil hydraulic properties using multistep extraction method, Proc. of Annual Meeting of JSIDRE, Branch of Chugoku-Shikoku, pp.107-108 (in Japanese)
- Zhou, J. Z., Otsuki, K. Kamichika, M. and Yamamoto, T. (Nov.1996) : Comparison of climate and plant productivity between Iran and Inner Mongolia of China, Agricultural Meteorology of Chugoku and Shikoku, 9, pp.18-21 (in Japanese)
- Inoue, M., Simunek, J., Hopmans, J. W. and Clausnitzer, V. (Dec.1996) : *In-situ* estimation of soil hydraulic functions using a multi-step soil-water extraction method, Fall Meeting 1996, American Geophysical Union, F221 (San Francisco, CA, USA)

(3) Reports (Apr.1996-Mar.1997)

Subdivision of Natural Environment

- Otsuki, K. (Aug.1996) : Interim report of study on establishment of a new monitoring system for land and water resources management, The Japanese Institute of Irrigation and Drainage & Pakistan Water and Power Development Authority, pp.9-18
- Ishikawa, M., Otsuki, K. and Kamichika, M. (Dec.1996) : An experimental study of a desalination system using solar energy and temperature difference between soil and air, *Green Age*, 10, pp.7-13
- Otsuki, K. (Mar.1997) : Irrigation and drainage, Study on Establishment of a New Monitoring System for Land and Water Resources Management, Main Report, JIID, pp.77-114
- Otsuki, K. (Mar.1997) : Irrigation and Drainage, JIID report on the monitoring system of water and land resources for agriculture, pp.129-142 & 325-392 (in Japanese)
- Otsuki, K. (Mar.1997) : Research on the tentative upland water requirement at low level before accomplishment of the project, JSIDRE report on the water requirement plan and upland irrigation method for the Kochi-Seinan Reclamation and Construction Project, pp.1-18 (in Japanese)
- Otsuki, K. (Mar.1997) : Monitoring of agricultural land environment by remote sensing, JSIDRE report on the leaching system for the agricultural land antidisaster project in the Yoshino River Delta, pp.14-49 (in Japanese)
- Otsuki, K. (Mar.1997) : Irrigation technique in Miyako district, Report on the irrigation effect in the Miyako Irrigation Project, pp.9-30 (in Japanese)
- Nakano, Y., Sase, S., Kawata, N., Otsubo, M. and Otsuki, K. (Mar.1997) : JSIDRE Report of Food, Rural and Earth 2050 (FORE2050) Committee (in Japanese)

Subdivision of Water Resources

- Kitamura, Y. and Suzuki, S. (Mar.1997) : Study on environmental impact of paddy-based agriculture in India, Study Report for India, Japan Agricultural Land Development Agency (JALDA) (in Japanese)
- Kitamura, Y. (Mar.1997) : Measures for enhancing environmental conservation effects of paddy fields, Annual Report 1996: Study on Environmental Conservation Effects of Paddy-Based Agriculture, Japan Agricultural Land Development Agency (JALDA) (in Japanese)

Subdivision of Plant Ecophysiology

- Inanaga, S., Sugimoto, Y., Ashimori, M. and Murota, K. (Mar.1997) : Development of non-destructive measuring systems for root growth based on AE method, Report for Monbusho Grant-in-Aid for Scientific Research A (in Japanese)

Subdivision of Plant Production

- Takeuchi, Y. and Inoue, M. (Mar. 1997) : Development of soil moisture management for cultivation and its practical use, Report for Monbusho Grant-in Aid for Scientific Research C (in Japanese)

Subdivision of Revegetation and Glassland Development

- Yamanaka, N. and Kinoshita, E. (Dec.1996) : Sexual expression and flower morphology of some woody plants from Okinawa Island, Hotta, M. ed., "Sexual expression of Angiosperm species in the subtropical islands of Japan", Report for The Nippon Life Insurance Foundation, pp.11-22 (in Japanese)

Yamanaka, N., Wang, L. and Yoshikawa, K. (Dec.1996) : Seed production and seed bank of *Sabina vurgalis* in Inner Mongolia, Yoshikawa, K. ed., "Ecophysiological studies of woody plants for preventing desertification -Drought tolerance and sand dune stabilizing ability of woody plants-", Report for The Nippon Life Insurance Foundation, pp.35-42 (in Japanese)

Yoshikawa, K., Wang, L., Yamanaka, N., and Zushi, M. (Dec.1996) : Structure, growth rate and growth conditions of *Sabina vurgalis* populations, "Yoshikawa, K. ed., Ecophysiological studies of woody plants for preventing desertification - Drought tolerance and sand dune stabilizing ability of woody plants-", Report for The Nippon Life Insurance Foundation, pp.17-34 (in Japanese)

Subdivision of Land Conservation

Yamamoto, T. (Mar.1996) Studies on water quality of irrigation water resources in the Tohoku Irrigation Project Areas, The 1996 annual report of grant-in aid for the ministry of Agriculture, Ministry of Forestry and Fisheries, pp.72-86 (in Japanese)

Takeuchi, Y. and Inoue, M. (Mar. 1997) : Development of soil moisture management for cultivation and its practical use, Report for Monbusho Grant-in Aid for Scientific Research C (in Japanese)