

2.4 List of Publications, Presentations and Reports

(1) Publications (Apr.2002 - Mar.2003)

Subdivision of Natural Environment

- Okada, S. and Kamichika, M.(June 2002) : Relationship between sand Movement and meteorological parameters on Tottori Sand Dune, Sand Dune Research, vol. 49(1), pp. 11 - 20
- Nakamoto, K., Kamichika, M. and Hayakawa, S. (Oct. 2002) : Changes in soil CO₂ concentration of a sand dune field at precipitation events, Sand Dune Research, vol. 49(2), pp. 57 – 65 (in Japanese)

Subdivision of Water Resources

- Kitamura, Y. and Yano, T. (Jul. 2002): Water and soil degradation caused by secondary salinization and remedial measures in irrigated lands in Central Asia, Jour. JSIDRE, 70(7) , pp.21-25 (in Japanese)
- Yasuda, H, Kawato, W., Abe, Y., and Yamada, K. (Jul. 2002): Correlation between vegetation index and rainfall time series of Sturt Meadows in Western Australia. Jour. Arid Land Study 12(1), pp.27-30 (in Japanese)
- Yang, S.H., Yano, T., Aydin, M., Kitamura, Y. and Takeuchi, S. (Jul. 2002): Short term effects of saline irrigation on evapotranspiration from lysimeter-grown citrus trees, Agricultural Water Management, 56, pp.131-141
- Kitamura, Y. and Yano, T. (Nov. 2002): Irrigation and rural development to secure self-sufficiency in food in sub-Saharan Africa, Jour. JSIDRE, 70(11), pp.24-27 (in Japanese)
- Yang, S.H., Takeuchi, S., Yano, T. and Kitamura, Y. (Nov. 2002): Evapotranspiration from citrus trees growing in sandy soil under drip irrigation with saline water, Science in China. 45(supp.), pp.41-46
- Saito, T., Abe, Y., Yasuda, H, and Yamada, K. (Dec. 2002): Infiltration acceleration of runoff water and evaporation prevention by highly permeable ditches for afforestation in arid lands. Jour. Arid Land Study 12(3), pp.107-116 (in Japanese)
- Yang, S.H., Aydin, M., Yano, T. and Xin, L. (Jan. 2003): Evapotranspiration of orange trees in greenhouse lysimeters, Irrig Sci., 21(4), pp. 145-149

Subdivision of Plant Ecophysiology

- Lux, A., M. Luxova, T. Hattori, S. Inanaga and Y. Sugimoto (May 2002): Silicification in sorghum (*Sorghum bicolor*) cultivars with different drought tolerance, Physiologia Plantarum, 115, pp.87-92
- Matsui, T., S. Inanaga, T. Shimotashiro, P. An and Y. Sugimoto (June 2002): Morphological characters related to varietal differences in tolerance to deep sowing in wheat, Plant Production Science, 5(2), pp.169-174
- Shamas, G. R., A. E. Eneji, M. Al-Rawahi, F. Al-Raisi, O. S. Ahmed, M. E. K. Ali, K. Hamamura and S. Inanaga (May 2002): Influence of mulching and salt content of irrigation water on the performance of fruit vegetables in the arid sandy soils of Oman; : Watermelon growth and yield, Sand Dune Research, 49(1), pp.21-29
- Deng, X., L. San and S. Inanaga (May 2002): Sensitivity and resistance of seedling establishment to water stress in spring wheat, Cereal Research Communications, 30(1-2), pp.125-132
- An, P., S. Inanaga, A. Lux, X. J. Li, M. E. K. Ali, T. Matsui and Y. Sugimoto (Aug. 2002): Effects of salinity and relative humidity on two melon cultivars differing in salt tolerance, Biologia Plantarum, 45(3), pp.409-415
- Sugimoto, Y., N. E. Ahmed, N. Yasuda and S. Inanaga (Sept. 2002): Trichothecene inhibitors of *Striga hermonthica* germination produced by *Fusarium solani*, Weed Science, 50(5), pp.658-661
- Wen, G., T. E. Bates, S. Inanaga, R. P. Voroney, K. Hamamura and D. Curtin (Sept. 2002): A yield control

- approach to assess phytoavailability of Zn and Cu in irradiated, composted sewage sludges and composted manure in field experiments : Copper, Plant and Soil, 246, pp.241-248
- Deng, X., L. Shan and S. Inanaga (Sept. 2002): High efficient use of limited supplement water by dryland spring wheat, Transactions of the CSAE, 18(5), pp.84-91
- Kato, M., A. Omura, A. Toshikawa, S. Kish and Y. Sugimoto (Sept. 2002): Vapor-induced luminescence switching in crystals of the syn isomer of a dinuclear (bipyridine)platinum(II) complex bridged with pyridine-2-thiolate ions, Angewandte Chemie, International Edition, 41 (17), pp.3183-3185
- Wen, G., J. J. Schoenau, S. P. Mooleki, S. Inanaga, T. Yamamoto, K. Hamamura, M. Inoue and P. An (Feb.2003): Effectiveness of an elemental sulfur fertilizer in an oilseed-cereal-legume rotation on the Canadian prairies, Journal of Plant Nutrition and Soil Science, 166, pp.54-60
- Yasuda, N., Y. Sugimoto, M. Kato, S. Inanaga and K. Yoneyama (Apr.2003): (+)-Strigol, a witchweed seed germination stimulant, from *Menispermum dauricum* root culture, Phytochemistry, 62, pp.1115-1119
- Ali, M. E. K., S. Inanaga and Y. Sugimoto (Dec. 2002): Sources of resistance in Fusarium wilt of chickpea in Sudan, Phytopathologia Mediterranea, 41 (3), pp.163-169
- Sato, D., A. A. Awad, S. H. Chae, T. Yokota, Y. Sugimoto, Y. Takeuchi and K. Yoneyama (Feb. 2003): Analysis of strigolactones, germination stimulants for *Striga* and *Orobanchae*, by highperformance liquid chromatography/tandem mass spectrometry, Journal of Agricultural and Food Chemistry, 51 (5), pp.1162-1168
- Tsuji, W., M. E. K. Ali, S. Inanaga and Y. Sugimoto (Mar. 2003): Growth and gas exchange of three sorghum cultivars under drought stress, Biologia Plantarum, 46(4), pp.583-587

Subdivision of Plant Production

- Shamas, G.R., Eneji, A.E., Al-Rawahi, M., Al-Raisi, F., Ahmad, O.S., Ali, M.E.K., Hamamura, K., and Inanaga, S. (Jun. 2002) : Influence of mulching and salt content of irrigation water on the performance of fruit vegetables in the arid sandy soils of Oman. : Watermelon growth and yield. Sand Dune Studies 49:21 – 29.
- Wen,G.,Bates,TE.,Inanaga,S.,Voroney,RP.,Hamamura,K.,and Curtin,D. (Nov. 2002) A yield control approach to assess phytoavailability of Zn and Cu in irradiated,composted sewage sludges and composted manure in field experiments: Copper Plant and Soil 246:241-248.
- Tomemori, H., Hamamura, K. and Tanabe, K. (Dec.2002) Interactive effects of sodium and potassium on the growth and photosynthesis of spinach and komatsuna. Pl. Production Science 5(4):281 – 285.
- Wen,G,Schoenau,JJ,Mooleki,SP,Inanaga,S,Yamamoto,T,Hamamura,K,Inoue,M,and An, P. (Jan.2003) Effectiveness of an elemental sulfur fertilizer in an oilseed-cereal-legume rotation on the Canadian prairies. J.Plant Nutr. Soil Sci. 166:1-7.

Subdivision of Revegetation and Grassland Development

- Atsumi, Y., Tamai, S., Yamamoto, F. and Yamanaka, N. (Nov. 2002) Nov. Tissue water relations of 20 tree species growing in a cool temperate Forest. J. Jpn. For. Soc. 84:271-275(in Japanese with English summary)
- Liu, H., Tamai, S., Furukawa, I. and Katagiri S. (Mar. 2003): A study on the growth of *Populus alba* L. and changes in soil moisture and salinity under saline irrigation in a sandy soil. Sand dune Research 49(3) pp.113-120 (in Japanese with English summary)

Subdivision of Land Conservation

- Nishioka, S. and Inoue, M. (Apr. 2002) : Creating of 'Suitable environment' using high technology, Vol.3, Let's create rich forest, PHP Institute, Inc. pp.4-15
- Yamamoto, T., Yamada, M., Wen, G. and Yuya, A. (Jul. 2002): Application of recycling materials for soil

- degradation in Arid Lands, Jour. Japanese Society of Irrigation, Drainage and Reclamation Engineering, 70(7), pp.13-16
- Inoue, M. (Sep. 2002) : New version 'Glossary of Soil Science Terms' edited by Japanese Society of Soil Physics, Youkenndou, pp.120-122
- Simunek J., Genuchten M.T. V., Jacques, D., Hopmans, J. W., Inoue, M. and Flury ,M. (Oct. 2002) : Solute Transport During Variably Saturated Flow – Inverse Methods. In: Methods of Soil Analysis, Part 4, Physical Methods, Jacob H. Dane and G. Clarke Topp, Co-editors, Soil Science Society of America, USA , pp. 1435- 1449
- Yamamoto, T., Fredrick, K.A.M., Fujimaki, H. and Utsunomiya, J. (Nov. 2002): Characteristics of meteorology and sustainable irrigation schedules in the Saherian Region of Africa, Jour. Japanese Society of Irrigation, Drainage and Reclamation Engineering, 70(11), pp.43-46
- Kosugi, K. and Inoue, M. (Dec. 2002) : Estimation of hydraulic properties of vertically heterogeneous forest soil from transient matric pressure data, Water Resources Research38(12), 1322, doi:10.1029/2002 WR001546
- Yamada, M., Uehira, M., Lee, S.H., Asahara, K., Endo, T. Eneji, A.E., Yamamoto, S., Honna, T. Yamamoto, T. and Fujiyama, H. (2002):Ameliorative Effect of K-type and Ca-type Artificial Zeolites on the Growth of Beets in Saline and Sodic Soils , Soil Sci. Plant Nutr., 48(5), 651-658
- Wen,G., Bates,T.E., Voroney,T., Yamamoto,T., Chikushi,J. and Curtin,D.(Oct. 2002) : A yield control approach to assess phytoavailability of Zn and Cu in irradiated, composted sewage sludges and composted manure in field experiments: I. Zinc, Plant and Soil 246, pp.231-240
- Endo, T., Honna, T., Inoue, M., Inoue, A. Honjyo, K., Fujimaki, H., Yamamoto, S. and Yamamoto, T. (Feb. 2003) : Water flow and solute transport during leaching process using continual or intermittent irrigation in sandy column, - Application of monitoring system for water flow and solute transport -, Sand Dune Research, 49(3), pp.105-112
- Mochizuki, H., Sakaguchi, I. and Inoue M., (Mar. 2003): Comparison of the methods measuring of soil thermal conductivity, J. Jpn. Soc. Soil Phys.,93, pp. 47-50

(2) Presentations (Apr.2002 - Mar.2003)

Subdivision of Natural Environment

- Kimura, R., Okada, S. and Kamichika, M. (May 2002): Development of a vegetation cover index and vegetation vigor index by spectral reflectance, Proc. of Meteorol. Soc. Jpn. 2002, pp. 231 (in Japanese)
- Yu, Y., Okumura, T., Sueyasu, T. and Kamichika, M. (May 2002): The effect of coarse sand and grass roots n wind erosion from desertified lands, Proceedings of 12th ISCO Conference, Beijing pp.607 - 612
- Kamichika, M. (July 2002): Natural environment and agricultural development in the arid land, China, Open Seminar by Japanese Society of Sand Dune Research.
- Yu, Y., Okumura, T., Sueyasu, T. and Kamichika, M. (May 2002): The formation and stability of surface armoring by coarse sand particles, Proceeding of the ICAR5/GCTE-SEN Joint Meeting Texas, USA, Publication, 02 – 2 p. 70
- Nakamoto, K., Kamichika, M., Ookatsu, K., Hayakawa, S. and Ooba, K. (Aug. 2002): Features of CO₂ concentration of Tottori sand in the sand dune field, Proc. of Agricultural Meteorology 2002, pp. 42 (in Japanese)
- Okatsu, K., Kimura, R. and Kamichika, M. (Aug. 2002): Estimation of evapotranspiration using the zero-flux plane method, Proc. of Agricultural Meteorology 2002, pp. 97 (in Japanese)
- Kawai, T. and Kamichika, M. (Aug. 2002): Study on the water balance considering the groundwater table in the sand dune field, Proc. of Agricultural Meteorology 2002, pp. 98 (in Japanese)
- Kimura, R., Okada, S. and Kamichika, M. (Aug. 2002): Development of a vegetation cover index and vegetation vigor index by spectral reflectance, Proc. of Agricultural Meteorology 2002, pp. 112 (in

Japanese)

- Yamagiwa, K., Matsuoka N., Kon, H. and Kamichika, M. (Aug. 2002): Prediction of rainfall in the Loess Plateau by using the GMS-IR data, Proc. of Agricultural Meteorology 2002, pp. 258 (in Japanese)
- Kimura, R. (Aug. 2002): On the surface temperature of the mixed land cover using airborne remote sensing and its evaluation by a heat balance model, A Sectional Meeting of Agricultural Meteorology 2002, pp. 18-28. (in Japanese)
- Kimura, R., Kobayasi, T., Matsuoka, N. and Kamichika, M. (Nov. 2002) : Studies on the land cover type, precipitation and soil water content in Liudaogou, Core University program combating desertification and development in Inland China China-Japan joint seminar, pp.1-2.
- Kawai, T., Inoue, M. and Kamichika, M. (Nov. 2002): Study on the groundwater recharge of rainfall in the sand dune field, Agricultural Meteorology of Chugoku and Shikoku 2002, pp. 19-20 (in Japanese)
- Sasaki, Y., Kimura, R. and Kamichika, M. (Nov. 2002): The property of heat balance over the sugar cane field in Miyako island, Agricultural Meteorology of Chugoku and Shikoku 2002, pp. 49-51 (in Japanese)

Subdivision of Water Resources

- Ohigashi, N., Yamada, T., Yano, T and Kitamura, Y. (Aug. 2002): Estimation of evaporation from a bare dune sand using TDR technique, Proc. of the Annual Meeting of JSIDRE, pp.278-279 (in Japanese)

Subdivision of Revegetation and Grassland Development

- Yamanaka, N., Yamamoto, F., Du, S., Otsuki, K., Xue, Z., Han, R., Liang, Z., and Hou Q.: (March 2003):. Restoration of forest ecosystems using domestic plants – Structure and regeneration of natural *Quercus liaotungensis* forests-. Proc. of Annual Meeting of The Jap. For. Soc. 2003, p.246 (in Japanese)
- Yamanaka, N. (March 2002): Diversity in seedling morphology of woody plants, Proc. of Annual Meeting of The Ecol. Soc. Jpn. 50, p.33 (in Japanese)

Subdivision of Land Conservation

- Yamamoto, T., Kumar, M. and Naruoka, M. (Jun. 2002): Characteristics of natural environment and irrigated agriculture, Proc. of Annual Meeting of Japanese Association for Arid Land, pp.41-42 (in Japanese)
- Zhou, J., Kamichika, M., Yamamoto, T. and Matsuda, A. (Jun. 2002):Recent desertification and its social factor in the Inner Mongolia autonomous region of China, Proc. of Annual Meeting of Japanese Association for Arid Land, pp.63-64 (in Japanese)
- Yamamoto, T. (Jul. 2002): Desertification and irrigated agriculture, Symposium D,Proc. Chugoku-Shikoku branch of Annual Meeting of Society of Chemical Engineers, Japan., pp.83(in Japanese)
- Yamamoto, T., Otoshi,M., Higami, H., Wen,G. Inoue ,M., and Uchida, O. (Jul. 2002):Use of Photogrammetry in Monitoring Soil Erosion, Proceedings of American Society Agricultural Engineers, Paper No.02-2089, Chicago, Illinois, USA, July 28-31
- Inoue, M., Kihara, Y., and Morii, T. (Aug. 2002) : Determination of in-situ soil hydraulic properties using profile probe, Proc. of Annual Meeting of JSIDRE, pp.38-39
- Seki, K., Mizoguchi, M., Nishimura, T. and Inoue, M. (Aug. 2002) : In situ determination of soil hydraulic parameters by cone permeameter, Proc. of Annual Meeting of JSIDRE, pp. 40-41 (in Japanese)
- Morii, T., Inoue, M. and Takeshita, Y. (Aug. 2002) : In-situ measurements of field-saturated hydraulic permeability by using constant-head infiltrometer, Proc. of Annual Meeting of JSIDRE, pp.42-43
- Nishimura, T., Inoue, M. and Mizoguchi, M. (Aug. 2002) : Determination of permeability by diskpermeameter in situ, Proc. of Annual Meeting of JSIDRE, pp.44-45
- Tokumoto, I., Cho, H., Toride, N., and Inoue, M. (Aug. 2002) : Water content measurements by three different type of TDR sensors, Proc. of Annual Meeting of JSIDRE, pp.274-275
- Cho, H., Rooij, G.H. and Inoue, M. (Aug. 2002) : Fingered flow and pressure distribution in the induction zone under the condition of non-ponding and mono-layer system, Proc. of Annual Meeting of JSIDRE,

pp.280-281

- Fujimaki, H., and Inoue, M. (Aug. 2002) : Upward infiltration method using transparent rings for determining unsaturated hydraulic conductivity, Proc. of Annual Meeting of JSIDRE, pp.314-315
- Arai, M., Keren, R., Yamamoto, T., and Inoue, M. (Aug. 2002) : Effect of soil ESP and clay content on degradation of soil aggregate, Proc. of Annual Meeting of JSIDRE, pp.346-347
- Sakaguchi, Y., Yamamoto, T., Inoue, M. and Shimizu, T. (Aug. 2002) : Effect of different leaching requirements on the growth of Sorghum, - Salt water irrigation using weighing large lysimeter (III) -, Proc. of Annual Meeting of JSIDRE, pp.506-507 (in Japanese)
- Hossein, D.S., Yamamoto, T. and Farzaneh, E. (Aug.2002) : Development of modern irrigation systems in arid and semi-arid area –A case study in Iran - , Proc. of Annual Meeting of JSIDRE, pp. 508-509
- Yuya, A., Yamamoto, T., Inoue, M. and Yamada, M. (Aug. 2002) : Application of artificial zeolite reduces soil erosion of sodium soil by water, Proc. of Annual Meeting of JSIDRE, pp.580-581 (in Japanese)
- Ogawa, H., Kakehashi, Y., Inoue, M., Tanabe, K. and Odani, H. (Aug. 2002) : Effects of soil water movement in sand dune field on yield and quality of red Japanese potatoes, Proc. of Japanese Society of Sand Dune Research, 49 pp.16-17 (in Japanese)
- Hayashi, H., Ogawa, H., Kakehashi, Y. and Inoue, M. (Aug. 2002) : Transmission of soil water content data in sand dune field and establishment of answering system using internet system, Proc. of Japanese Society of Sand Dune Research, 49 pp.18-19 (in Japanese)
- Yamamoto, T., Rasiah, V. and Martin L. (Oct. 2002): Development and problem of irrigated agriculture in Australia, Focusing for Cairns and Perth Areas, Chugoku-Shikoku branch of Annual Meeting of JSIDRE, 57, pp.111-112 (in Japanese)
- Inoue, M. (Oct. 2002) : Measurement of soil water content using profile probe and its application, Proc. Chugoku-Shikoku branch of Annual Meeting of JSIDRE, 57, pp.113-114
- Nakao, Y., Inosako, K., Taguma, K., and Inoue, M. (Oct. 2002) : Practical application of soil water flux (1) Selection of filter of flux meter, Proc. Chugoku-Shikoku branch of Annual Meeting of JSIDRE, 57, pp.118-120
- Azuma, T., Inoue, M., Kihara, Y., and Inosako, K. (Oct. 2002) : Effect of gravel mulch size on evaporation rate during salt accumulation process, Proc. Chugoku-Shikoku branch of Annual Meeting of JSIDRE, 57, pp.124-125
- Morii, T., Iso, A., Takamura, M., and Inoue, M. (Nov. 2002) : Fundamental experiment on in-situ test of saturated and unsaturated hydraulic properties, Proc. Kyoto branch of Annual Meeting of JSIDRE, 59, pp.138 - 139
- Nishimura, T. , Kato, M and Yamamoto, T.(2002): Effect of Gypsum and Polyacrylamide application on erodibility of an acid Kunigami mahji soil, Proceedings of 13th Intl. Soil Conservation Organization Conference (Beijing), pp.187-191
- Yamamoto, T. (Jan. 2003): Irrigation technology and water quality problem in irrigation systems for sand dune agriculture, Proc. of Symposium of Agric-Techno Research Society and Tottori Soil-Fertilizer Research Society, pp.3-10

(3) Reports (Apr.2002-Mar.2003)

Subdivision of Land Conservation

- Yamamoto, T., Utsunomiya, T. and Hossein, D.S. (Mar. 2003) : Studies on water quality of irrigation water resources in the Tohoku Irrigation Project Areas, The 2002 Annual Report of Grant-in-Aid for the Ministry of Forestry and Fisheries, pp.117-137 (in Japanese)
- Yamamoto, T., Yuya, S. and Hossein, D.S.(Mar.2003): Prevention of water erosion from revegetation bed soil under sedums cultivation in green roof, The 2002 Report of Research Requisition supported by Nishimatsu Construction Co., Ltd.(in Japanese)