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**Kata Pengantar**

Indeks Biologi dan Pertanian Indonesia ini terbit tiga nomor setahun, berisi judul-judul karangan mengenai biologi dan pertanian di Indonesia yang dimuat dalam berbagai penerbitan dalam maupun luar negeri.

Indeks ini disusun menurut skema pembagian subyek dari AGRIS (The International Information System for Agricultural Sciences and Technology) dan masing-masing entri dilengkapi dengan kata kunci yang menggambarkan isi karangan. Kata kunci ini diambil dari AGROVOC edisi ke-4 tahun 1999, dan dipakai pula untuk indeks subyeknya.

Untuk menelusuri suatu karangan yang diinginkan, pengguna dapat mencarinya dari indeks pengarang dan indeks subyek. Daftar majalah dari karangan-karangan yang dimuat dalam indeks ini juga disertakan.

Semua karangan yang ada di dalam indeks ini ada di Pusat Perpustakaan dan Penyebaran Teknologi Pertanian, dan pengguna yang memerlukan karangan aslinya dapat menghubungi alamat dari Pusat tersebut.

Bogor, 2004

Kepala Pusat Perpustakaan dan  
Penyebaran Teknologi Pertanian

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**A50 AGRICULTURAL RESEARCH /  
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0001 EFFENDIE, K. [Research results of Research Institute for Ornamental Plants (Indonesia)]. Hasil penelitian unggulan Balai Penelitian Tanaman Hias/Effendie, K. (Balai Penelitian Tanaman Hias, Cianjur (Indonesia)). Warta Penelitian dan Pengembangan Pertanian (Indonesia) ISSN 0216-4427 (2001) v. 23(3) p. 8-10

ORNAMENTAL PLANTS; RESEARCH;  
FARMING SYSTEMS.

**C30 DOCUMENTATION AND INFORMATION /  
DOKUMENTASI DAN INFORMASI**

0002 JOSHI, L. Knowledge-based systems (KBS) approach to access farmers' local knowledge about ecology and biodiversity/ Joshi, L. (International Center for Research in Agroforestry South East Asia, Bogor (Indonesia)). Proceedings of Workshop Management of Agrobiodiversity in Indonesia for Sustainable Land Use and Global Environmental Benefits/Gafur, A.; Susilo, F.X.; Utomo, M.; Noordwijk, M.V. (eds.) Badan Penelitian dan Pengembangan Pertanian, Jakarta (Indonesia); Universitas Lampung, Bandar Lampung (Indonesia). Jakarta (Indonesia): AARD, 1999 p. 111-126 3 ill., 4 tables; 35 ref.

FARMERS; KNOWLEDGE BASED  
SYSTEMS; INDIGENOUS KNOWLEDGE;  
ECOLOGY; AGROFORESTRY BIO-  
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**D10 PUBLIC ADMINISTRATION /  
ADMINISTRASI NEGARA**

0003 NURHERU. [Institutional performance of smallholder cotton intensification in South Sulawesi (Indonesia)]. Kinerja kelembagaan intensifikasi kapas rakyat di Sulawesi Selatan/Nurheru; Sahid, M. (Balai Penelitian Tanaman Tembakau dan Serat, Malang (Indonesia)). Warta Penelitian dan Pengembangan Tanaman Industri (Indonesia) ISSN 0853-8204 (2001) v. 7(3) p. 4-8

GOSSYPIMUM; INTENSIFICATION;  
DEVELOPMENT AGENCIES; SULAWESI.

**D50 LEGISLATION / HUKUM DAN  
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UNDANGAN**

0004 DIKIN, A. Phytosanitary certificate. Penerbitan sertifikat Phytosanitary/Dikin, A. (Pusat Karantina Pertanian, Jakarta (Indonesia)). Buletin Media Quaranta (Indonesia) ISSN 0215-1499 (2001) (no. 1-3) p. 4-5 4 ref.

QUARANTINE; LEGISLATION; AGRICULTURE; CERTIFICATION.

0005 DIKIN, A. [Risk analysis of fresh apple and pear import from Argentina]. Analisis risiko pemasukan buah apel dan pir segar dari negara Argentina/Dikin, A. (Pusat Karantina Pertanian, Jakarta (Indonesia)). Buletin Media Quaranta (Indonesia) ISSN 0215-1499 (2000) (no. 7-9) p. 7-9

APPLES; PEARS; QUARANTINE; PESTS;  
IMPORTS; MANAGEMENT; RISK.

0006 ERMAN, B. [Slenth hound as quarantine action on port container, crossing of part, crossover state, international port or airport and post office]. Memperkenalkan anjing pelacak sebagai pembantu pelaksanaan tindakan karantina di pelabuhan peti kemas, pelabuhan penyeberangan, lintas batas antar negara, pelabuhan/bandara internasional dan kantor pos/Erman, B. (Pusat Karantina Pertanian, Jakarta (Indonesia)). Buletin Media Quaranta (Indonesia) ISSN 0215-1499 (2001) (no. 1-3) p. 6

HUNTING DOGS; QUARANTINE;  
HARBOURS.

0007 PUSAT KARANTINA PERTANIAN, JAKARTA. Fumigation activity by plant quarantine. Pelaksanaan fumigasi oleh karantina tumbuhan/Pusat Karantina Pertanian, Jakarta (Indonesia). Buletin Media Quaranta (Indonesia) ISSN 0215-1499 (2000) (no. 7-9) p. 3-8

FUMIGANTS; TOXICITY; FUMIGATION;  
QUARANTINE; PLANT CERTIFICATION.

**E10 AGRICULTURAL ECONOMICS AND POLICIES / EKONOMI DAN KEBIJAKAN NASIONAL MENGENAI PERTANIAN**

0008 BASUNO, E. [Poor farmer socio-economic reality during economic crisis]. Realitas sosial ekonomi petani miskin selama krisis/Basuno, E.; Suhaeti, R.N. (Pusat Penelitian dan Pengembangan Sosial Ekonomi Pertanian, Bogor (Indonesia)). *Warta Penelitian dan Pengembangan Pertanian (Indonesia)* ISSN 0216-4427 (2001) v. 23(3) p. 6-8

FARMERS; SOCIOECONOMIC DEVELOPMENT; ECONOMIC CRISES; LAND-OWNERS; NONFARM INCOME; FARM INCOME.

0009 NAHDODIN. [Efficiency of sugar factory in Java (Indonesia)]. Pabrik gula di Jawa sudahkah efisien/Nahdodin (Pusat Penelitian dan Pengembangan Gula Indonesia, Pasuruan (Indonesia)). *Media Perkebunan (Indonesia)*. *Media Informasi Masyarakat Perkebunan* ISSN 0215-1278 (Dec 1999) (no. 31) p. 10-12 5 ref.

JAVA; SUGAR INDUSTRY; FACTORIES; PRODUCTION INCREASE; EFFICIENCY.

0010 PUSAT PENELITIAN SOSIAL EKONOMI PERTANIAN, BOGOR. [Agricultural sector as temporary activity for rural migrant]. Sektor pertanian sebagai kegiatan sementara bagi migran di pedesaan/Pusat Penelitian Sosial Ekonomi Pertanian, Bogor (Indonesia) *Buletin Agroekonomi (Indonesia)* ISSN 1411-7827 (2000) v. 1(1) p. 1-5 4 ill.

AGRICULTURAL SECTOR; MIGRANT LABOUR; RURAL COMMUNITIES; AGRICULTURAL WORKERS.

0011 PUSAT PENELITIAN SOSIAL EKONOMI PERTANIAN, BOGOR [Restructuring policies national chicken industry]. Kebijakan restrukturisasi industri ayam ras nasional/Pusat Penelitian Sosial Ekonomi Pertanian, Bogor (Indonesia). *Buletin Agroekonomi (Indonesia)* ISSN 1411-7827 (2000) v. 1(1) p. 6-11 3 ill.

LAYER CHICKENS; BROILER CHICKENS; AGRICULTURAL POLICIES;

AGROINDUSTRIAL SECTOR;  
ECONOMIC CRISES.

0012 SAIFULLAH, A. (Supporting committee of agricultural produces market policy to create the food security). Badan penyangga kebijaksanaan pasar hasil-hasil pertanian dalam usaha menciptakan ketahanan pangan/Saifullah, A. (Puslitbang Bulog, Jakarta (Indonesia)) *Pangan: Media Komunikasi dan Informasi (Indonesia)* (2002) v. 9(38) p. 30-40 3 ill., 2 tables; 7 ref.

RICE; PRODUCTION; FOOD SECURITY; FOOD POLICIES; INDONESIA.

0013 SAWIT, M.H. [Rice for poor family: a social protection program]. Beras untuk keluarga miskin (Raskin): Sebuah program perlindungan sosial/Sawit M.H. (Pusat Penelitian dan Pengembangan Sosial Ekonomi Pertanian, Bogor (Indonesia)). *Pangan: Media Komunikasi dan Informasi (Indonesia)* (2002) v. 9(38) p. 10-19 3 tables; 16 ref.

RICE; FOOD POLICIES; FOOD CONSUMPTION; NUTRIENT IMPROVEMENT; POVERTY; INDONESIA.

0014 SUSILOWATI, S.H. [Dynamics of farm household economic in rural areas]. *Dinamika ekonomi rumah tangga petani di pedesaan/Susilowati, S.H.; Saleh, C.; Zakaria, A.K.; Wahyuni, S.; Supriyati; Supadi; Waluyo; Nurasa, T.* *Buletin Agroekonomi (Indonesia)* ISSN 1411-7927 (2002) v. 2(1,2) p. 24-27 3 ill.

HOUSEHOLDS; AGRICULTURAL ECONOMICS; FARM INCOME; FARMING SYSTEMS; ECONOMIC POLICIES; RURAL AREAS.

0015 SUSILOWATI, S.H. [Rural economic dynamic in West Java (Indonesia)]. *Dinamika ekonomi pedesaan di Jawa Barat/Susilowati, S.H.; Suhaeti, R.N.* (Pusat Penelitian dan Pengembangan Sosial Ekonomi Pertanian, Bogor (Indonesia)). *Warta Penelitian dan Pengembangan Pertanian (Indonesia)* ISSN 0216-4427 (2002) v. 24(1) p. 7-9 1 ill.

AGRICULTURAL ECONOMICS; POPULATION DYNAMICS; ECONOMIC SITUATION; RURAL AREAS; JAVA.

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METROXYLON; FLOURS; PROXIMATE COMPOSITION; SELF SUFFICIENCY.

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LAYER CHICKENS; ECONOMIC ANALYSIS; SMALL FARMS; SCALE HUSBANDRY; MEDIUM SIZE FARMS; PROFIT; SUMATRA.

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BIODIVERSITY; MANAGEMENT; LAND USE; SUSTAINABILITY.

0019 DIREKTORAT PERLUASAN AREAL [Focus of area development policy]. Fokus kebijakan operasional pengembangan perluasan areal/Direktorat Perluasan Areal. [Proceedings of a Meeting on Food Crops Agribusiness Development Program]. *Prosiding Pertemuan Koordinasi Pemantapan*

*Program Proyek Pengembangan Agribisnis Tanaman Pangan Tahun Anggaran 2002/Direktorat Jenderal Bina Produksi Tanaman Pangan, Jakarta (Indonesia). Jakarta (Indonesia): Dirjen Bina Produksi Tanaman Pangan, 2001 (pt. 1) 30 p.*

INDONESIA; DEVELOPMENT POLICIES; FARM AREA.

0020 GAFUR, A. Impacts of different land use systems on the abundance of soil-borne pathogens/Gafur, A. (Universitas Lampung, Bandar Lampung (Indonesia)); Darmono, T.W.. *Proceedings of Workshop Management of Agrobiodiversity in Indonesia for Sustainable Land Use and Global Environmental Benefits/Gafur, A.; Susilo, F.X.; Utomo, M.; Noordwijk, M.V. (eds.) Badan Penelitian dan Pengembangan Pertanian, Jakarta (Indonesia); Universitas Lampung, Bandar Lampung (Indonesia). Jakarta (Indonesia): AARD, 1999 p. 93-102 1 table; 38 ref.*

SOIL MICROORGANISMS; PATHOGENS; BIOLOGICAL CONTROL; LAND USE.

0021 JAYANTO, G. [Mapping of potential and suitability level and development for citrus plantation]. Penyusunan peta potensi dan tingkat kesesuaian lahan serta arahan pengembangan untuk tanaman jeruk/Jayanto, G.; Hidayat, Y.; Bastaman, M. (Pusat Penelitian dan Pengembangan Tanah dan Agroklimat, Bogor (Indonesia)). *Buletin Teknik Pertanian (Indonesia)* ISSN 0853-8379 (2001) v. 6(2) p. 45-49 2 tables; 10 ref.

CITRUS; CARTOGRAPHY; LAND SUITABILITY; AGRICULTURAL DEVELOPMENT; SOIL CHEMICO-PHYSICAL PROPERTIES.

0022 KARAMA, A.S. [Land utilization for food crops]. Pendayagunaan lahan untuk produksi tanaman pangan/Karama, A.S. (Direktorat Jenderal Produksi Tanaman Pangan, Jakarta (Indonesia)). [Proceeding of the National Seminar on Utilization of Soil Resources, Climate and Fertilizer, Book 1]. *Prosiding Seminar Nasional Reorientasi Pendayagunaan Sumberdaya Tanah, Iklim, dan Pupuk, Buku 1/Sofyan, A.; Irianto, G.; Agus, F.; Irawan; Suryanto, W.J.; Prihatini, T.; Anda, M. (eds.). Pusat Penelitian dan Pengembangan Tanah dan Agroklimat, Bogor*

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FOOD CROPS; PRODUCTION INCREASE; LAND USE; LAND SUITABILITY.

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FOOD CROPS; PLANT PROTECTION; DEVELOPMENT POLICIES.

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CANE SUGAR; QUALITY; SELF SUFFICIENCY; DEVELOPMENT POLICIES; INDONESIA.

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SACCHARUM OFFICINARUM; PRODUCTION; MANAGEMENT; SOIL FERTILITY; SOIL ORGANIC MATTER; SOIL CHEMICAL PHYSICAL PROPERTIES; AGRICULTURAL WASTES; UNIT COSTS; TRADE LIBERALIZATION.

#### **E20 ORGANIZATION, ADMINISTRATION AND MANAGEMENT OF AGRICULTURAL ENTERPRISES OR FARMS / ORGANISASI, ADMINISTRASI DAN PENGELOLAAN PERUSAHAAN PERTANIAN / USAHA TANI**

0045 AMIEN, I. [Anticipation and control of Anomali climate on agricultural management in Indonesia]. Antisipasi dan penanggulangan anomali iklim dalam manajemen pertanian di Indonesia/Amien, I.; Las, I. [Proceeding of the National Seminar on Utilization of Soil Resources, Climate and Fertilizer, Book 1]. Prosiding Seminar Nasional Reorientasi Pendayagunaan Sumberdaya Tanah, Iklim, dan Pupuk, Buku 1/Sofyan, A.; Irianto, G.; Agus, F.; Irawan; Suryanto, W.J.; Prihatini, T.; Anda, M. (eds.) Pusat Penelitian dan Pengembangan Tanah dan Agroklimat, Bogor (Indonesia). Bogor (Indonesia): PUSLITBANGTANAK, 2001 p. 157-169 5 ill., 10 ref.

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COFFEA ARABICA; DRUG PLANTS; FARMING SYSTEMS; INDIGENOUS KNOWLEDGE; PRODUCTION INCREASE; FARM INCOME; SMALL FARMS; TECHNOLOGY TRANSFER; JAVA.

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TECHNOLOGY TRANSFER; FARMERS;  
INCOME.

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MANGIFERA INDICA; VARIETIES; CROP MANAGEMENT; PACLOBUTRAZOL;

FLOWERING; FRUITING; DISEASE TRANSMISSION.

## F02 PLANT PROPAGATION / PERBANYAKAN TANAMAN

0104 DWIMAHYANI, I. Vegetative propagation of chrysant by tissue culture technique. Perbanyak tanaman krisan (*Chrysanthemum morifolium*) melalui kultur jaringan/Dwimahyani, I.; Gandanegara, S. (Pusat Penelitian Teknologi Isotop dan Radiasi-BATAN, Jakarta (Indonesia)). Berita Biologi (Indonesia) ISSN 0126-1754 (2001) v. 5(4) p. 413-419 3 ill. 14 ref. Summary (En)

DENDRANTHEMA MORIFOLIUM; VEGETATIVE PROPAGATION; TISSUE CULTURE; IN VITRO CULTURE; EXPLANTS; SHOOTS; SEEDLINGS.

0105 HOESEN, D.S.H. *In vitro* technique propagation and culture maintenance of sambung nyawa (*Gynura procumbens* (Lour.) Merr.). Perbanyak dan penyimpanan kultur sambung nyawa (*Gynura procumbens* (Lour.) Merr.) dengan teknik *in-vitro*/Hoesen, D.S.H. (Pusat Penelitian Biologi-LIPI, Bogor (Indonesia). Bidang Botani). Berita Biologi (Indonesia) ISSN 0126-1754 (2001) v. 5(4) p. 379-385 4 tables; 16 ref. Summary (En)

DRUG PLANTS; PLANT PROPAGATION; IN VITRO; TISSUE CULTURE; CULTURE MEDIA; PLANT GROWTH SUBSTANCES; EXPLANTS; GROWTH.

0106 MULYADIN, A.A. [Growing media selection for gladiol seed development]. Pemilihan media tanam untuk pengembangan benih sumber daya gladiol/Mulyadin, A.A. (Instansi Penelitian Tanaman Hias, Cipanas (Indonesia)). Buletin Teknik Pertanian (Indonesia) ISSN 0853-8379 (2001) v. 6(2) p. 69-71 2 tables; 5 ref.

GLADIOLUS; PLANT PROPAGATION; GROWING MEDIA; PLANTING STOCK; GROWTH.

0107 PRIYONO. Regeneration of kerk lily (*Lilium longiflorum* Thunb.) via somatic embryogenesis on leaf explant. Regenerasi tanaman kerk lily (*Lilium longiflorum* Thunb.) melalui embriogenesis somatik pada eksplan



daun/Priyono (Pusat Penelitian Kopi dan Kakao Indonesia, Jember (Indonesia)). *Berita Biologi (Indonesia)* ISSN 0126-1754 (2001) v. 5(4) p. 395-403 4 ill. 28 ref. Summary (En)

LILIUM LONGIFLORUM; IN VITRO REGENERATION; PLANT GROWTH SUBSTANCES; SOMATIC EMBRYOS; TISSUE CULTURE.

0108 RATNASARI, J. Effect of elicitation by using extract of *Saccharomyces cerevisiae* Hansen on Ajmalicine content in cell aggregates culture of *Catharanthus roseus* (L.) G. Don.. Pengaruh pemberian elisitor ekstrak khamir *Saccharomyces cerevisiae* Hansen terhadap kandungan Ajmalisin dalam kultur agregat sel *Catharanthus roseus* (L.) G. Don./Ratnasari, J.; Siregar, A.H.; Rizkita R.E. (Institut Teknologi Bandung (Indonesia)). *Berita Biologi (Indonesia)* ISSN 0126-1754 (2001) v. 5(4) p. 349-355 4 ill.; 18 ref. Summary (En)

CATHARANTHUS ROSEUS; CELL CULTURE; SACCHAROMYCES; GROWTH; CULTURE MEDIA; PLANT GROWTH SUBSTANCES; CHEMICAL CONTENT.

0109 SJAEFUDDIN, A. [Storability of entres and its packing media application on soursop]. Daya simpan entres dan penggunaan media pembungkusnya pada tanaman sirsak. *Buletin Teknik Pertanian (Indonesia)* ISSN 0853-8379 (2001) v. 6(1) p. 26-28 1 tables; 2 ref.

ANNONA MURICATA; PLANT PROPAGATION; GRAFTING; ANNONA CHERIMOLA; STORAGE ORGANS; DURATION; GROWTH.

### F03 SEED PRODUCTION / PRODUKSI DAN PERLAKUAN TERHADAP BIJI DAN BENIH

0110 DARMOWIYONO, S. [Indonesia seed supply policy in facing nasional agricultural development and global competition]. Kebijakan perbenihan di Indonesia dalam menghadapi kebangkitan pertanian nasional dan persaingan global/Darmowiyono, S. (Direktorat Bina Perbenihan Direktorat Jenderal Tanaman Pangan dan Hortikultura. Jakarta (Indonesia)). [National

Seminar on Seeds Chances and Challenges of Seeds Industry to Agricultural Wakening and Global Competition]. Seminar Nasional Perbenihan: Peluang dan Tantangan Industri Perbenihan dalam Menghadapi Kebangkitan Pertanian Nasional dan Persaingan Global/Forum Benih-Daerah Istimewa Yogyakarta (Indonesia). Yogyakarta (Indonesia): Forum Benih - DIY, 1999 (pt. 2) 15 p.

SEED; SEED PRODUCTION; HYBRIDS; QUALITY; SEED CERTIFICATION; LEGISLATION; SEED INDUSTRY; ECONOMIC SECTORS; PRODUCTION POSSIBILITIES.

0111 MARDJONO, R. [Opportunity of seed production and development of hybrid cotton in Indonesia]. Peluang memproduksi benih dan pengembangan kapas hibrida Indonesia/Mardjono, R.; Sriwulan, I. (Balai Penelitian Tanaman Tembakau dan Tanaman Serat, Malang (Indonesia)). *Warta Penelitian dan Pengembangan Tanaman Industri (Indonesia)* ISSN 0853-8204 (2001) v. 7(3) p. 12-15

GOSSYPIMUM HIRSUTUM; SEED PRODUCTION; HYBRIDS; INDONESIA.

0112 MARYADI, Y. [Distribution aspects and market prospect of food crops seed]. Aspek distribusi dan prospek pasar benih tanaman pangan/Maryadi, Y. (Sang Hyang Seri P.T., Sukamandi (Indonesia)). [National Seminar on Seeds: Chances and Challenges of Seeds Industry to Agricultural Wakening and Global Competition]. Seminar Nasional Perbenihan: Peluang dan Tantangan Industri Perbenihan dalam Menghadapi Kebangkitan Pertanian dan Persaingan Global/Forum Benih-Daerah Istimewa Yogyakarta (Indonesia). Yogyakarta (Indonesia): Forum Benih - DIY, 1999 (pt. 6) 4 p.

FOOD CROPS; SEED; MARKETING TECHNIQUES; ECONOMIC DISTRIBUTION; SEED PRODUCTION; SEED CHARACTERISTICS; VARIETIES.

0113 NOVIA, P. . [Seed deterioration symptom]. Gejala kemunduran benih/Novia, P. Universitas Ekasakti, Padang (Indonesia). Fakultas Pertanian. Padang (Indonesia): Universitas Ekasakti, 1998 23 p. 1 table; 7 ref.

SEED; SEED CHARACTERISTICS, VIGOUR; VIABILITY; RESPIRATION RATE, ENZYME ACTIVITY; HARVESTING DATE; HUMIDITY; DETERIORATION.

0114 SADJAD, S. [Foundation seed program, success key for Indonesian seed industry: review on recent and future seed industry]. Program benih dasar kunci sukses industri benih Indonesia: tinjauan terhadap industri benih sekarang dan masa depan/Sadjad, S. (Institut Pertanian Bogor (Indonesia)). [National Seminar on Seeds Chances and Challenges of Seeds Industry to Agricultural Wakening and Global Competition]. Seminar Nasional Perbenihan: Peluang dan Tantangan Industri Perbenihan dalam Menghadapi Kebangkitan Pertanian dan Persaingan Global/Forum Benih Daerah Istimewa Yogyakarta (Indonesia). Yogyakarta (Indonesia): Forum Benih - DIY, 1999 (pt. 4) 4 p.

SEED; SEED INDUSTRY; SEED TECHNOLOGY; VIABILITY; SEED CHARACTERISTICS; PRODUCTION INCREASE.

0115 SANTOSO, A.P. [Role of qualified seed on fruit crops protection]. Peranan benih bermutu dalam perlindungan tanaman buah/ Santoso, A.P. (Direktorat Perbenihan, Jakarta (Indonesia)). [Report of the Training on Fruit Pest and Diseases Control Workers]. Laporan Pelaksanaan Pelatihan Petugas Pengendalian OPT Buah/Direktorat Jenderal Produksi Hortikultura dan Aneka Tanaman, Jakarta (Indonesia). Jakarta (Indonesia): Direktorat Perlindungan Tanaman, 2000 p. 26-47 4 tables

FRUIT CROPS; PESTS OF PLANTS; PLANT DISEASES; AGRICULTURAL POLICIES; SEED; QUALITY; INTEGRATED PEST MANAGEMENT; FARMING SYSTEMS; ECONOMIC RESOURCES.

0116 SUDARMADJI. [Seed processing technique of tobacco (*Nicotiana tabacum* L.) seed]. Teknik pengolahan benih tembakau (*Nicotiana tabacum* L.)/Sudarmadji; Rifa'i, M.; Sentosa, I. (Balai Penelitian Tanaman Tembakau dan Serat, Malang (Indonesia)). Warta Penelitian dan Pengembangan Tanaman Industri (Indonesia) ISSN 0853-8204 (2001) v. 7(3) p. 4-8

NICOTIANA TABACUM; SEED; TECHNOLOGY; PROCESSING; POST-HARVEST TECHNOLOGY; SEED STORAGE; DRYING; PACKAGING; QUALITY.

0117 YUDONO, P. [Seed program and its constraints in Indonesia]. Program perbenihan dan kendalanya di Indonesia/Yudono, P. (Universitas Gadjah Mada, Yogyakarta (Indonesia). Fakultas Pertanian). [National Seminar on Seeds Chances and Challenges of Seeds Industry to Agricultural Wakening and Global Competition]. Seminar Nasional Perbenihan: Peluang dan Tantangan Industri Perbenihan dalam Menghadapi Kebangkitan Pertanian dan Persaingan Global/Forum Benih-Daerah Istimewa Yogyakarta (Indonesia). Yogyakarta (Indonesia): Forum Benih - DIY, 1999 (pt. 3) 6 p. 4 ref.

SEED; HYBRIDS; SEED PRODUCTION; SEED TESTING; QUALITY CONTROL; SEED INDUSTRY; SEED CERTIFICATION.

#### F04 FERTILIZING / PEMUPUKAN

0118 ABDURACHMAN, A. [Concept fertilizer quality control for agricultural sector]. Konsep pengendalian mutu pupuk untuk pertanian/Abdurachman, A.; Adiningsih, J.S.; Nursyamsi, D. [Proceeding of the National Seminar on Utilization of Soil Resources, Climate and Fertilizer, Book 1]. Prosiding Seminar Nasional Reorientasi Pendayagunaan Sumberdaya Tanah, Iklim, dan Pupuk, Buku 1/Sofyan, A.; Irianto, G.; Agus, F.; Irawan; Suryanto, W.J.; Prihatini, T.; Anda, M. (eds.) Pusat Penelitian dan Pengembangan Tanah dan Agroklimat, Bogor (Indonesia). Bogor (Indonesia): PUSLIT-BANGTANAK, 2001 p. 83-95 4 tables; 9 ref.

FERTILIZERS; QUALITY CONTROL; PRODUCTION INCREASE; MONITORING.

0119 ANDAYANI, A. Nutritional status on the quality of vegetable hybrid seed. Pengaturan nutrisi untuk kualitas benih hibrida dalam pengembangan sayuran/Andayani, A. (Balai Latihan Penyuluhan Pertanian, Wonocatur, Yogyakarta (Indonesia)). [National Seminar on Seeds: Chances and Challenges of Seeds Industry to Agricultural Wakening and Global Competition]. Seminar

Nasional Perbenihan: Peluang dan Tantangan Industri Perbenihan dalam Menghadapi Kebangkitan Pertanian dan Persaingan Global/Forum Benih-Daerah Istimewa Yogyakarta (Indonesia). Yogyakarta (Indonesia): Forum Benih - DIY, 1999 (pt. 9) 12 p. 3 ill., 15 ref.

VEGETABLE CROPS; QUALITY; NUTRITIONAL STATUS; IN VITRO CULTURE; SEED PRODUCTION; FERTILIZER APPLICATION; SEED; HYBRIDS.

0120 DIREKTORAT JENDERAL BINA PRODUKSI TANAMAN PANGAN. [Evaluation of organic matter utilization]. Evaluasi pemanfaatan bahan organik/Direktorat Jenderal Bina Produksi Tanaman Pangan, Jakarta (Indonesia). Direktorat Serealia. Jakarta (Indonesia): Direktorat Serealia, 2001 23 p.

ORGANIC FERTILIZERS; AZOLLA; SOIL CHEMICOPHYSICAL PROPERTIES; USES; APPLICATION RATES; FOOD CROPS; CULTIVATION.

0121 HASIBUAN, N. [Concept of fertilizer quality control for agricultural sector]. Konsep pengendalian mutu pupuk untuk pertanian/Hasibuan, N. (Direktorat Jenderal Prasarana dan Sarana Pertanian, Jakarta (Indonesia)). [Proceeding of the National Seminar on Utilization of Soil Resources, Climate and Fertilizer, Book 1]. Prosiding Seminar Nasional Reorientasi Pendayagunaan Sumberdaya Tanah, Iklim, dan Pupuk, Buku 1/Sofyan, A.; Irianto, G.; Agus, F.; Irawan; Suryanto, W.J.; Prihatini, T.; Anda, M. (eds.) Pusat Penelitian dan Pengembangan Tanah dan Agroklimat, Bogor (Indonesia). Bogor (Indonesia): PUSLITBANGTANAK, 2001 p. 71-81 3 ref.

FERTILIZERS; QUALITY CONTROL; PRODUCTION INCREASE; MONITORING.

0122 MASKAR. [Effect of alternative fertilizer on irrigated rice production in Central Sulawesi (Indonesia)]. Pengaruh pupuk alternatif terhadap produksi padi sawah di Sulawesi Tengah/Maskar; Slamet, M.; Sayfruddin. [Annual Report of Assessment Institut for Agricultural Technology (BPTP) Biromaru (Indonesia) 1999/2000 fiscal year].

Laporan Tahunan Balai Pengkajian Teknologi Pertanian (BPTP) Biromaru T.A. 1999/2000/Balai Pengkajian Teknologi Pertanian Biromaru, Palu (Indonesia). Palu (Indonesia): BPTP Biromaru, 2000 p. 45-53 10 tables

ORYZA SATIVA; IRRIGATED RICE; FERTILIZER APPLICATION; SOIL CHEMICOPHYSICAL PROPERTIES; GROWTH; YIELDS; SULAWESI.

0123 MASKAR. [Effect of potash fertilizer dosage on smallholder cocoa plant production in Central Sulawesi (Indonesia)]. Pengaruh takaran pupuk kalium terhadap produksi tanaman kakao rakyat di Sulawesi Tengah/Maskar; Syafruddin. [Annual Report of Assessment Institut for Agricultural Technology (BPTP) Biromaru (Indonesia) 1999/2000 fiscal year]. Laporan Tahunan Balai Pengkajian Teknologi Pertanian (BPTP) Biromaru T.A. 1999/2000/Balai Pengkajian Teknologi Pertanian Biromaru, Palu (Indonesia). Palu (Indonesia): BPTP Biromaru, 2000 p. 54-57 5 tables

THEOBROMA CACAO; POTASH FERTILIZERS; FERTILIZER APPLICATION; SOIL CHEMICOPHYSICAL PROPERTIES; SOIL FERTILITY; COST BENEFIT ANALYSIS.

0124 MASKAR. [Efficiency of NPKS fertilizers on irrigated rice in Central Sulawesi (Indonesia)]. Efisiensi pemupukan NPKS pada padi sawah di Sulawesi Tengah/Maskar; Slamet, M.; Syafruddin; Zubachtirodin. [Annual Report of Assessment Institute for Agricultural Technology (BPTP) Biromaru (Indonesia) 1999/2000 fiscal year]. Laporan Tahunan Balai Pengkajian Teknologi Pertanian (BPTP) Biromaru T.A. 1999/2000/Balai Pengkajian Teknologi Pertanian Biromaru, Palu (Indonesia). Palu (Indonesia): BPTP Biromaru, 2000 p. 58-67 9 tables

ORYZA SATIVA; IRRIGATED RICE; SOIL CHEMICOPHYSICAL PROPERTIES; NPK FERTILIZERS; SULPHUR FERTILIZERS; FERTILIZER APPLICATION; APPLICATION RATES; GROWTH; YIELDS; SULAWESI.

0125 MIRMANTO, E. Ecology of lowland forest in Barito Ulu, Central Kalimantan (Indonesia): Response to Nitrogen and phosphor fertilization. Ekologi hutan pamah

Barito Ulu, Kalimantan Tengah: respon terhadap pemupukan Nitrogen dan fosfor/Mirmanto, E. (Balai Penelitian Botani, Pusat Penelitian Biologi (Indonesia)). *Berita Biologi (Indonesia)* ISSN 0126-1754 (2001) v. 5(4) p. 421-430 8 tables; 24 ref. Summary (En)

FOREST TREES; FOREST ECOLOGY; NITROGEN FERTILIZERS; PHOSPHATE FERTILIZERS; GROWTH RATE; FOREST LITTER; PLANT NUTRITION; KALIMANTAN.

0126 SAHIRI, N. [Effect of EM-4 at different spacing on the decomposition of wild plant organic matter of sweet corn]. Studi penguraian bahan organik tumbuhan liar dengan menggunakan EM-4 pada berbagai kerapatan jagung manis/Sahiri, N. (Universitas Tadulako, Palu (Indonesia). Fakultas Pertanian). *Jurnal Agroland (Indonesia)* ISSN 0854-641X (2000) v. 7(1) p. 47-55 7 tables; 13 ref. Summaries (En, In)

SWEET CORN; MICROORGANISMS; ORGANIC MATTER; DEGRADATION; NUTRIENTS; SPACING; SOIL CHEMICO-PHYSICAL PROPERTIES; YIELDS.

#### F06 IRRIGATION / IRIGASI

0127 HADID, A. [Effect of mulches and phosphate fertilizers on shallot water use efficiency]. Efisiensi penggunaan air pada tanaman bawang merah (*Allium ascalonicum* L.) yang diberi mulsa dan fosfor/Hadid, A. (Universitas Tadulako, Palu (Indonesia). Fakultas Pertanian). *Jurnal Agroland (Indonesia)* ISSN 0854-641X (2000) v. 7(1) p. 41-46 3 tables; 10 ref. Summaries (En, In)

ALLIUM ASCALONICUM; MULCHES; PHOSPHATE FERTILIZERS; WATER USE; EFFICIENCY; EVAPOTRANSPIRATION; YIELDS.

0128 SAPTANA. [Historical study and perspective of irrigation institution development in regional autonomy era]. Tinjauan histories dan perspektif pengembangan kelembagaan irigasi di era otonomi daerah/Saptana; Hendiarto; Sunarsih; Sumaryanto (Pusat Penelitian dan Pembangunan Sosial Ekonomi Pertanian, Bogor (Indonesia)). *Forum Penelitian Agro Ekonomi (Indonesia)* ISSN 0216-4361 (2001) v. 19(2) p. 50-65 28 ref. Summaries (En, In)

IRRIGATION; WATER MANAGEMENT; SOCIAL INSTITUTIONS; IRRIGATION SYSTEMS; INFRASTRUCTURE; FARMERS; PARTICIPATION; INNOVATION; LOCAL GOVERNMENT.

#### F08 CROPPING PATTERNS AND SYSTEMS / POLA TANAM DAN SISTEM PENANAMAN

0129 BURGERS, P. Indigenous fallow management and biodiversity: in line with nature ?/Burgers, P. (International Center for Research in Agroforestry, South East Asia, Bogor (Indonesia)). *Proceedings of Workshop Management of Agrobiodiversity in Indonesia for Sustainable Land Use and Global Environmental Benefits/Gafur, A.; Susilo, F.X.; Utomo, M.; Noordwijk, M.V. (eds.) Badan Penelitian dan Pengembangan Pertanian, Jakarta (Indonesia); Universitas Lampung, Bandar Lampung (Indonesia). Jakarta (Indonesia): AARD, 1999 p. 103-110 1 ill., 10 ref.*

TROPICAL FORESTS; BIODIVERSITY; AGROFORESTRY; SOIL FAUNA; FALLOW SYSTEMS; NATURE CONSERVATION; SUSTAINABILITY.

0130 DARMANSYAH, A. [Analysis of the comparative and competitive advantages farming system of curly chili]. Analisis keunggulan komperatif dan kompetitif usahatani cabe keriting/Darmansyah, A. Universitas Winaya Mukti, Sumedang (Indonesia). Fakultas Pertanian. Sumedang (Indonesia): UNWIM, 1999 45 p. 16 tables; 11 ref. Summaries (En, In)

CAPSICUM ANNUUM; FARMING SYSTEMS; FARM SURVEYS; FARM INPUTS; ECONOMIC ANALYSIS.

0131 LIMBONGAN, J. [Study on cocoa farming system and quality improvement in Central Sulawesi (Indonesia)]. Pengkajian sistem usahatani dan perbaikan mutu kakao di Sulawesi Tengah (Klonalisasi kakao)/Limbongan, J.; Bunga, Y.; Langsa, Y.; Idrus, M.; Martono, J.; Basrum. [Annual Report of Assessment Institut for Agricultural Technology (BPTP) Biromaru (Indonesia) 1999/2000 fiscal year]. Laporan Tahunan Balai Pengkajian Teknologi Pertanian (BPTP) Biromaru T.A. 1999/2000/Balai Pengkajian

Teknologi Pertanian Biromaru, Palu (Indonesia). Palu (Indonesia): BPTP Biromaru, 2000 p. 70-72 2 tables

THEOBROMA CACAO; FARMING SYSTEMS; GRAFTING; BUDDING; GROWTH; YIELDS; FARM INCOME; SULAWESI.

0132 TALIB, J. The effect of different cropping systems of banana - pineapple on soil physical properties, root biomass, and soil erosion. Pengaruh perbedaan system penanaman pisang - nenas terhadap sifat fisika tanah, biomas akar dan erosi tanah/ Talib, J.; Sulaiman, W.H.W.; Ramlan, M.F. (Universitas Putra Malaysia. Fakultas Pertanian); Adrinal. Jurnal Stigma (Indonesia) ISSN 0853-3776 (1999) v. 8(3) p. 163-172. 12 ill.; 2 tables; 12 ref. Summary (In)

MUSA PARADISIACA; ANANAS COMOSUS; CROPPING SYSTEMS; SOIL CHEMICOPHYSICAL PROPERTIES; EROSION; ROOTS; BIOMASS

### **F30 PLANT GENETICS AND BREEDING / GENETIKA DAN PEMULIAAN TANAMAN**

0133 ACHMADI, I. [Increasing sugar cane productivity through varieties change in Watoetoelis sugar factory (Indonesia)]. Upaya meningkatkan produktivitas tebu melalui pergantian varietas di pabrik gula Watoetoelis / Achmadi, I.; Rahardjo, A.; Revianto, P. (Pabrik Gula Watoetoelis-PTPN X (Persero) (Indonesia)). [Technical Meeting on Productivity and High Efficiency to Increase Competitive Ability of Indonesian Sugar Industry]. Pertemuan Teknis P3GI: Produktivitas dan Efisiensi Tinggi untuk Meningkatkan Daya Saing Industri Gula Indonesia/Pusat Penelitian Perkebunan Gula Indonesia, Pasuruan (Indonesia). Pasuruan (Indonesia): P3GI, 2000 (pt. 6) 6 p. 4 tables. Appendices

SACCHARUM OFFICINARUM; HIGH YIELDING VARIETIES; EXTENSION; ACTIVITIES; FARMERS; PRODUCTION POSSIBILITIES; YIELDS; JAVA.

0134 ANGGRAENI, D. [Potential of transgenic plants to support the growth of agricultural sector on environmental

perspective]. Potensi tanaman transgenik dalam mendukung pertumbuhan sektor pertanian yang berwawasan lingkungan/ Anggraeni, D. (Monagro Kimia, PT (Indonesia)). [Breeding contribution on technology innovation with environmental friendly]. Kontribusi pemuliaan dalam inovasi teknologi ramah lingkungan/Kasno, A.; Lamadji, S.; Basuki, N.; Arsyad, D. M.; Mardjono, R.; Mirzaman; Boswarsiati; Sudjindro (eds.) Perhimpunan Ilmu Pemuliaan Indonesia, Malang (Indonesia). Komisariat Daerah Jawa Timur. Bandung (Indonesia): Perhimpunan Ilmu Pemuliaan Indonesia, 2001 p. 18-21 Summary (In)

TRANSGENIC PLANTS; AGRICULTURAL SECTOR; BIOTECHNOLOGY; FOOD SECURITY; PLANT BREEDING; ENVIRONMENT.

0135 BASWARSATI. [Breeding strategy of tropical fruits to support the development of agribusiness]. Strategi pemuliaan buah-buahan tropis mendukung pengembangan agribisnis/ Baswarsiati; Soepriyanto, A. (Balai Pengkajian Teknologi Pertanian Jawa Timur, Malang (Indonesia)). [Breeding contribution on technology innovation with environmental friendly]. Kontribusi pemuliaan dalam inovasi teknologi ramah lingkungan/Kasno, A.; Lamadji, S.; Basuki, N.; Arsyad, D.M.; Mardjono, R.; Mirzaman; Boswarsiati; Sudjindro (eds.) Perhimpunan Ilmu Pemuliaan Indonesia, Malang (Indonesia). Komisariat Daerah Jawa Timur. Bandung (Indonesia): Perhimpunan Ilmu Pemuliaan Indonesia, 2001 p. 38-46 32 ref. Summaries (En, In)

FRUIT CROPS; TROPICAL FRUITS; BREEDING METHODS; AGRO-INDUSTRIAL SECTOR.

0136 BUDI, U.S. Germplasm abaca status against agribusiness of abaca in Indonesia. Status plasma nutfah abaca menyongsong program agribisnis abaca di Indonesia/Budi, U.S.; Sudjindro; Purwati, R.D. (Balai Penelitian Tembakau dan Tanaman Serat, Malang (Indonesia)). [Breeding contribution on technology innovation with environmental riendly]. Kontribusi pemuliaan dalam inovasi teknologi ramah lingkungan/Kasno, A.; Lamadji, S.; Basuki, N.; Arsyad, D.M.; Mardjono, R.; Mirzaman; Boswarsiati; Sudjindro (eds.) Perhimpunan Ilmu Pemuliaan Indonesia, Malang (Indonesia). Komisariat Daerah Jawa Timur. Bandung (Indonesia):

Perhimpunan Ilmu Pemuliaan Indonesia, 2001 p. 254-258 2 tables; 10 ref. Summaries (En, In)

ABACA; GERMPLASM CONSERVATION; VARIETIES; AGRONOMIC CHARACTERS; AGROINDUSTRIAL SECTOR; INDONESIA.

0137 EFFENDIE, K. [Development of horticulture high yielding varieties by Shuttle breeding]. Merakit varietas unggul hortikultura melalui Shuttle breeding/Effendie, K. (Balai Penelitian Tanaman Sayuran, Lembang (Indonesia)). *Warta Penelitian dan Pengembangan Pertanian (Indonesia)* ISSN 0216-4427 (2002) v. 24(1) p. 11-12 1 ill.

HORTICULTURE; PLANT BREEDING; HIGH YIELDING VARIETIES.

0138 EFFENDIE, K. [True potato seed for new potato high yielding cultivars]. TPS untuk kultivar kentang unggul baru/Effendie, K. (Balai Penelitian Tanaman Sayuran, Lembang (Indonesia)). *Warta Penelitian dan Pengembangan Pertanian (Indonesia)* ISSN 0216-4427 (2002) v. 24(1) p. 10 1 ill.

SOLANUM TUBEROSUM; SEED; HIGH YIELDING VARIETIES.

0139 HANDAYATI, W. [Improvement mini rose performance through *in vitro* culture and gamma-ray irradiation]. Perbaikan penampilan mawar mini melalui kultur *in vitro* dan iradiasi sinar gamma/Handayati, W. (Balai Penelitian Tanaman Hias Segunung, Cipanas-Cianjur (Indonesia)) *Widyariset (Indonesia)* ISSN 1411-7932 (2001) v. 3 p. 61-68 1 ill., 2 tables; 13 ref. Summaries (En, In)

ROSA; GAMMA IRRADIATION; IN VITRO CULTURE; CROP PERFORMANCE.

0140 HERWATI, A. [Yield potential and quality of virginia tobacco promising lines]. Potensi hasil dan mutu galur harapan tembakau rajangan virginia/Herwati, A.; Suwarso; Rachman, F.; Kartaamindjaya, A. (Balai Penelitian Tembakau dan Tanaman Serat, Malang (Indonesia)). [Breeding contribution on technology innovation with environmental friendly]. Kontribusi pemuliaan

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NICOTIANA TABACUM; HIGH YIELDING VARIETIES; QUALITY; YIELDS; PROCESSED PLANT PRODUCTS; GENOTYPE ENVIRONMENT INTERACTION.

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PIPER NIGRUM; PEST INSECTS; STEM EATING INSECTS; ANIMAL BREEDING; HOST PLANTS.

0178 SANTOSA, E. Identification of sex pheromone of potato tuber moth, *Phthorimaea operculella* Zell. (Lepidoptera: Gelechiidae). Identifikasi feromon seks serangga penggerek umbi kentang *Phthorimaea operculella* Zell. (Lepidoptera: Gelechiidae)/Santosa, E.; Permana, A.D.; Susanto, A.; Setiawati, W. (Universitas Padjadjaran, Bandung (Indonesia). Fakultas Matematika dan Ilmu Pengetahuan Alam). Bionatura (Indonesia) ISSN 1411-0903 (2002) v. 4(1) p. 9-16 2 ill., 3 tables; 10 ref. Summaries (En, In)

SOLANUM TUBEROSUM; PHTHORIMAEA; OPERCULELLA; SEX PHEROMONES; IDENTIFICATION.

0179 SOENARYO, E. [Problem analysis of explosion and control of brown plant hopper in endemic area]. Analisis masalah ledakan dan pengendalian hama wereng coklat di wilayah endemik/Soenaryo, E. (Pusat Penelitian dan Pengembangan Tanaman Pangan, Bogor (Indonesia)). [Papers of the Application on Research Results of Genetic Resources Application on Rice to Anticipate Pest and Disease Development] Makalah Apresiasi Hasil Penelitian Padi Pemanfaatan Sumber Genetik untuk Mengantisipasi Perkembangan Hama dan Penyakit Tanaman. Bogor (Indonesia): Pusat Penelitian dan Pengembangan Tanaman Pangan, 1999. p. 33-56. 10 ill., 16 tables.

ORYZA SATIVA; NILAPARVATA LUGENS; ENDEMICS; INSECTICIDES; ROTATIONAL CROPPING; SEED TREATMENT.

## H20 PLANT DISEASES / PENYAKIT TANAMAN

0180 BALAI PENELITIAN PADI, SUKAMANDI. [Pest and disease profile of rice during 1998-1999 dry season and 1998-1999 wet season]. Profil hama dan penyakit padi pada MK 1998, MH 1998/1999, dan MK 1999; Kasus sentra produksi jalur pantura

/Balai Penelitian Padi, Sukamandi (Indonesia). [Papers of the Application on Research Results of Genetic Resources Application on Rice to Anticipate Pest and Disease Development]. Makalah Apresiasi Hasil Penelitian Padi Pemanfaatan Sumber Genetik untuk Mengantisipasi Perkembangan Hama dan Penyakit Tanaman/Pusat Penelitian dan Pengembangan Tanaman Pangan, Bogor (Indonesia). Sukamandi (Indonesia): BALITPA, 1999 p. 14-19 4 ill.

ORYZA SATIVA; VARIETIES; SCIRPOPHAGA; NILAPARVATA LUGENS; RATS; EPIDEMICS; DRY SEASON; WET SEASON; JAVA.

0181 DJATNIKA, I. [Primary disease identification and control on citrus, banana and mango]. Pengenalan dan pengendalian penyakit utama pada tanaman jeruk, pisang dan mangga/Djatnika, I. (Balai Penelitian Tanaman Buah, Solok (Indonesia)). [Report of the Training on Fruit Pests and Diseases Control Workers]. Laporan Pelaksanaan Pelatihan Petugas Pengendalian OPT Buah/Direktorat Jenderal Produksi Hortikultura dan Aneka Tanaman, Jakarta (Indonesia). Jakarta (Indonesia): Direktorat Perlindungan Tanaman, 2000 p. 91-114 5 ill., 4 tables; 17 ref.

CITRUS; MUSA; MANGIFERA INDICA; PLANT DISEASES; DISEASE CONTROL; IDENTIFICATION; INTEGRATED CONTROL; CONTROL METHODS.

0182 HADIASTONO, T. [Potential broad-leaves weeds on peanut (*Arachis hypogaea* L.) as alternative host of peanut stripe virus (PStV) disease]. Potensi gulma berdaun lebar pada pertanaman kacang tanah (*Arachis hypogaea* L.) sebagai inang alternatif penyakit bilun peanut stripe virus (PStv)/Hadiastono, T. (Universitas Brawijaya Malang (Indonesia). Fakultas Pertanian). Habitat (Indonesia) ISSN 0853-5167 (2001) v. 12(3) p. 139-146 7 tables; 10 ref. Summaries (En, In)

ARACHIS HYPOGAEA; INTERMEDIATE HOSTS; WEEDS; PLANT DISEASES; VIROSES; INOCULATION.

0183 KRISTALISASI, E.N. [Production of monoclonal antibodies of tungro Virus]. Produksi antibodi monoklonal virus tungro/Kristalisasi, E.N. [Compilation of paper presented at the Eight-Thirteenth

monthly Seminar in STIPER Agricultural Institute (January - Nopember 2000)]. Kumpulan Makalah Seminar Bulanan Periode VIII-XIII (Januari s/d. November 2000)/Institut Pertanian STIPER, Yogyakarta (Indonesia). Yogyakarta (Indonesia): STIPER, 2000 (pt. 9) 8 p. 3 ill., 1 table; 9 ref. Summary (In)

ORYZA SATIVA; RICE TUNGRO VIRUS; IMMUNODIAGNOSIS; MONOCLONAL ANTIBODIES; NEPHOTETTIX VIRESCENS; EXTRACTS; ELISA.

0184 MUHARAM, A. [Identification and control of diseases caused by viruses on banana and citrus]. Pengenalan dan pengendalian penyakit yang disebabkan oleh virus pada tanaman pisang dan jeruk/Muharam, A. (Balai Penelitian Tanaman Hias, Jakarta (Indonesia)). [Report of the Training on Fruit Pests and Diseases Control Workers]. Laporan Pelaksanaan Pelatihan Petugas Pengendalian OPT Buah/Direktorat Jenderal Produksi Hortikultura dan Aneka Tanaman, Jakarta (Indonesia). Jakarta (Indonesia): Direktorat Perlindungan Tanaman, 2000 p. 115-121 1 table; 7 ref.

CITRUS; MUSA; VIRUSES; DISEASE CONTROL; CITRUS TRISTEZA.

0185 SINAGA, M.S. [Development and use of bio-agents to control fruit diseases]. Pengembangan dan pemanfaatan agents hayati untuk pengendalian penyakit tanaman buah-buahan/Sinaga, M.S. (Institut Pertanian Bogor, Bogor (Indonesia). Fakultas Pertanian). [Report of the Training on Fruit Pests and Diseases Control Workers]. Laporan Pelaksanaan Pelatihan Petugas Pengendalian OPT Buah/Direktorat Jenderal Produksi Hortikultura dan Aneka Tanaman, Jakarta (Indonesia). Jakarta (Indonesia): Direktorat Perlindungan Tanaman, 2000 p. 156-170 10 ref.

FRUIT CROPS; DISEASE CONTROL; BIOLOGICAL CONTROL AGENTS; CONTROL METHODS; INTEGRATED CONTROL.

0186 SUWAHYONO, U. [*Trichoderma harzianum* biofungicide, an ecological friendly pesticide]. Biofungisida *Trichoderma harzianum* pestisida ramah lingkungan/Suwayono, U.; Wahyudi, P. (Direktorat

Teknologi Bioindustri, Jakarta (Indonesia). Jurnal Sains dan Teknologi Indonesia (Indonesia). Edisi Khusus ISSN 1410-9409 (2001) v. 3(5) p. 1-8 3 ill., 7 ref. Summary (En)

TRICHODERMA HARZIANUM; BIOLOGICAL CONTROL; PLANT PATHOLOGY; FUNGICIDES; ECOLOGY.

#### **H60 WEEDS AND WEED CONTROL / GULMA DAN PENGENDALIAN GULMA**

0187 RIFA'I, M. [Methods of weed control on cotton plantations]. Beberapa cara pengendalian gulma pada tanaman kapas/Rifa'i, M.; Sudarmadji (Balai Penelitian Tanaman Tembakau dan Tanaman Serat, Malang (Indonesia)). Warta Penelitian dan Pengembangan Tanaman Industri (Indonesia) ISSN 0853-8204 (2001) v. 7(3) p. 10-12 3 tables

GOSSYPIUM HIRSUTUM; WEED CONTROL; CONTROL METHODS; WEED CONTROL EQUIPMENT; INTEGRATED CONTROL.

0188 SANTI, I.S. [Application of Argentina flies (*Procecidochares connexa*) to control *Chromolaena odorata* weed]. Lalat Argentina (*Procecidochares connexa*) untuk mengendalikan gulma siam (*Chromolaena odorata*)/Santi, I.S. (Institut Pertanian STIPER, Yogyakarta (Indonesia). Fakultas Pertanian). [Compilation of paper presented at the Eight-Thirteenth Monthly Seminar in STIPER Agricultural Institute (January - Nopember 2000)]. Kumpulan Makalah Seminar Bulanan Periode VIII-XIII (Januari s.d. November 2000)/Institut Pertanian STIPER, Yogyakarta (Indonesia). Yogyakarta (Indonesia): STIPER, 2000 (pt. 14) 3 p. 4 ref.

CHROMOLAENA ODORATA; BIOLOGICAL CONTROL; TEPHRITIDAE; NATURAL ENEMIES.

#### **J11 HANDLING, TRANSPORT, STORAGE AND PROTECTION OF PLANT PRODUCTS / PENANGANAN, TRANSPORTASI, PENYIMPANAN DAN PERLINDUNGAN HASIL TANAMAN**

0189 BUDARAGA, I.K. . [Assessment on early respiration of salacca var. Pondoh

minimally processed on normal atmosphere storage condition]. Pengkajian awal respirasi minimally processed buah salak pondoh pada kondisi penyimpanan atmosfer normal/Budaraga, I.K. Universitas Ekasakti, Padang (Indonesia). Fakultas Pertanian. Padang (Indonesia): Universitas Ekasakti, 1998. 14 p. 4 ill., 9 ref. Summary (In)

SALACCA EDULIS; POSTHARVEST CONTROL; RESPIRATION; PROCESSED PRODUCTS; STORAGE; TEMPERATURE; CONTROLLED; ATMOSPHERE STORAGE; YIELDS.

0190 BUDIHARTI, U. [Moved RMU, new agribusiness on rice processing]. RMU keliling, agribisnis baru pengelolaan beras/Budiharti, U.; Harsono. Warta Penelitian dan Pengembangan Pertanian (Indonesia) ISSN 0216-4427 (2001) v. 23(5) p. 7-9 1 ill., 2 tables

RICE; PROCESSING; AGROINDUSTRIAL SECTOR; EQUIPMENT; MILLING; ECONOMIC ANALYSIS.

#### **J13 HANDLING, TRANSPORT, STORAGE AND PROTECTION OF ANIMAL PRODUCTS / PENANGANAN, TRANSPORTASI, PENYIMPANAN DAN PERLINDUNGAN HASIL PETERNAKAN**

0191 YOESOEFF, Y. [Effect of ginger extract on total bacteria, pH and the storability of the goat meat stored in refrigerator]. Pengaruh pemberian jahe terhadap jumlah koloni bakteri, pH dan daya simpan daging kambing dalam refrigerator/Yoesoef, Y. (Universitas Andalas, Padang (Indonesia). Fakultas Peternakan). Jurnal Peternakan dan Lingkungan (Indonesia) ISSN 0852-4092 (1998) v. 6(03) p. 89-94 3 tables; 10 ref. Summary (En)

GINGER; EXTRACTS; BACTERIA; PH; REFRIGERATION EQUIPMENT; GOATS; MEAT; KEEPING QUALITY.

#### **K01 FORESTRY - GENERAL ASPECTS / KEHUTANAN - ASPEK-ASPEK UMUM**

0192 GINTINGS, A.N. National policies on biodiversity in forestry and estate aspects/Gintings, A.N.; Mukhtar, S.A.. Proceedings of

Workshop Management of Agrobiodiversity in Indonesia for Sustainable Land Use and Global Environmental Benefits/Gafur, A.; Susilo, F.X.; Utomo, M.; Noordwijk, M.V. (eds.) Badan Penelitian dan Pengembangan Pertanian, Jakarta (Indonesia); Universitas Lampung, Bandar Lampung (Indonesia). Jakarta (Indonesia): AARD, 1999 p. 146-151 1 table; 3 ref.

FORESTRY; FORESTRY POLICIES; BIODIVERSITY; GERMPLASM; GERMPLASM CONSERVATION; GENETIC RESOURCES; PLANTATIONS; FARM MANAGEMENT.

#### **K10 FORESTRY PRODUCTION / PRODUKSI HUTAN**

0193 HANDAYANI, T. [Seed germination of *Desmos dasymaschala* on different fruit maturity stages]. Perkecambahian biji kenanga hutan (*Desmos dasymaschala* (Blume) Saff.) pada berbagai tingkat ketuaan buah/Handayani, T.; Panggabean, G. (PKT Kebun Raya Bogor (Indonesia)) BIOSFERA (Indonesia) ISSN 0853-1625 (2001) v. 18(1) p. 7-12 2 ill., 2 tables; 8 ref. Summary (En)

ANNONACEAE; SEED GERMINATION; MATURITY; GROWTH; SEEDLINGS.

0194 LEKSONO, B. [Technique for seed plantation establishment on second generation (F2)]. Teknik pembangunan kebun benih semai uji keturunan generasi kedua (F2)/Leksono, B. Wana Benih (Indonesia) ISSN 1410-1172 (2001) v. 4(1) p. 1-26 27 ill., 8 ref.

FOREST TREES; SEED; FOREST NURSERIES; SEED DRILLING; SEEDBED PREPARATION; SEEDLINGS.

0195 MANGKUWIBOWO, F. [Study on *Morus* flowering]. Studi pembungaan pada *Morus sp.*/Mangkuwibowo, F. Wana Benih (Indonesia) ISSN 1410-1172 (2001) v. 4(1) p. 27-34 2 tables; 4 ref. Summary (En)

MORUS; ORNAMENTAL WOODY PLANTS; FLOWERING; HYBRIDIZATION

0196 SYAFII, W. . [Exploration and identification of bio-active component on tropics wood species and its using possibility

as nature preservation material]. Eksplorasi dan identifikasi komponen bio-aktif beberapa jenis kayu tropis dan kemungkinan pemanfaatannya sebagai bahan pengawet alami/Syafii, W. Institut Pertanian Bogor (Indonesia). Fakultas Kehutanan. Bogor (Indonesia): FAHUTAN IPB, 2001 58 p. 6 ill., 9 tables; 26 ref.

DALBERGIA LATIFOLIA; CASSIA; HOPEA; DIOSPYROS; MANILKARA; METROSIDEROS; PALAQUIUM; NARWOOD; PLANT INTRODUCTION; USES; TROPICAL FORESTS; NATURE CONSERVATION; BIOLOGICAL PRESERVATION; WOOD PRESERVATIVES.

#### **K50 PROCESSING OF FOREST PRODUCTS / PENGOLAHAN HASIL HUTAN**

0197 EKOWALUYO, H. [Guidance of timber industry in Indonesia]. Kecenderungan pembinaan industri per kayu di Indonesia/Ekowaluyo, H. (Departemen Perindustrian dan perdagangan, Jakarta (Indonesia)). [Proceedings of the Workshop on Data Analysis and Policy of Forestry Sector]. Workshop Analisa Data dan Kebijakan Sektor Kehutanan./Jakarta (Indonesia): Departemen Kehutanan, 2001 p. 1-14 10 tables

WOOD INDUSTRY; DEVELOPMENT POLICIES; RAW MATERIALS; FOREST PRODUCTS.

0198 SUMADIWANGSA, S. Potential use of modified sago as an extender for UF plywood adhesive/Sumadiwangsa, S. (Pusat Penelitian dan Pengembangan Teknologi Hasil Hutan, Bogor (Indonesia). Forest Research Journal (Indonesia) ISSN 1412-1778 (2001) v. 2(1) p. 1-7 3 tables; 14 ref. Summary (En)

SAGO; NON CEREAL FLOURS; ADHESIVE; SOAKING; HYDROCHLORIC ACID; FORMALDEHYDE; TEMPERATURE; PHOSPHORYLATION; VISCOSITY; PLYWOOD

#### **L01 ANIMAL HUSBANDRY / PETERNAKAN**

0199 AUNUROHMAN, H. Study on estimation of milk production based on heart

girth measurement and udder size of Fries Holland dairy cows. Pendugaan produksi susu berdasarkan ukuran lingkaran dada besar ambing sapi Fries Holland/Aunurohman, H.; Djatmiko, O.E. (Universitas Jenderal Soedirman, Purwokerto (Indonesia). Fakultas Peternakan). *Animal Production (Indonesia). Jurnal Produksi Ternak* ISSN 1411-2027 (2002) v. 4(1) p. 32-35 2 tables; 3 ref. Summary (En)

DAIRY COWS; MILK PRODUCTION; MEASUREMENT.

0200 BALAI PENGKAJIAN TEKNOLOGI PERTANIAN SUMATERA SELATAN, PALEMBANG. [Beef cattle farming pattern in South Sumatra]. Pola usaha peternakan sapi potong di Sumatera Selatan/Balai Pengkajian Teknologi Pertanian Sumatera Selatan, Palembang (Indonesia). Palembang (Indonesia): BPTP, 2001 15 p. 5 ill., 1 table; 5 ref.

BEEF CATTLE; ANIMAL BREEDING; COPULATION; FATTENING; FEEDING SYSTEMS; FLUSHING; ANIMAL HOUSING; HYGIENE; DISEASE CONTROL.

0201 BRAHMANTIYO, B. [Productivity characteristics of Brahman cross, Angus and Murray grey cattle: growth and carcass production]. Karakteristik produksi sapi Brahman cross, Angus dan Murray grey: pertumbuhan dan karkas/Brahmantiyo, B. (Balai Penelitian Ternak, Bogor (Indonesia)). Widyariset (Indonesia) ISSN 1411-7932 (2001) v. 3 p. 69-76 1 ill., 2 tables; 15 ref. Summaries (En, In)

CATTLE; BODY WEIGHT; SLAUGHTER WEIGHT; CARCASSES; GROWTH WEIGHT.

0202 HARYANTO, S. [Effect of light intensity on the length of larval stages of the silkworm (*Bombyx mori* Linn)]. Studi pengaruh intensitas cahaya terhadap pertambahan panjang badan larva ulat sutera (*Bombyx mori* Linn)/Haryanto, S.; Darmawan, I.M.A. (Universitas Airlangga Surabaya (Indonesia). Fakultas Biologi); Nutriati. *BIOSFERA (Indonesia)* ISSN 0853-1625 (2001) v. 18(1) p. 20-24 2 tables; 10 ref. Summary (En)

BOMBYX MORI; LIGHT; INTENSITY; LENGHT; LARVAE.

0203 ISMADI, D. [Beef cattle farming in South Kalimantan]. Usaha ternak sapi potong di Kalimantan Selatan/Ismadi, D.; Suhaeti, R.N. *Warta Penelitian dan Pengembangan Pertanian (Indonesia)* ISSN 0216-4427 (2001) v. 23(5) p. 19

BEEF CATTLE; FATTENING; ANIMAL HUSBANDRY; FEEDS; PROBIOTICS; BODY WEIGHT; COST BENEFIT ANALYSIS; KALIMANTAN.

0204 MAKIN, M. Performance of milk production traits of Sahiwal cross and Holstein dairy cattle: A case study in Regencies of Cirebon, Subang and Sumedang, West Java (Indonesia). Perbandingan performans sifat-sifat produksi susu dan reproduksi sapi perah Sahiwal cross dengan Fries Holland: Studi kasus di Kab. Cirebon, Subang, dan Sumedang Jawa Barat/Makin, M. (Universitas Padjadjaran, Bandung (Indonesia)). *Bionatura (Indonesia): Jurnal Ilmu-ilmu Hayati dan Fisik Padjadjaran* ISSN 1411-0903 (2001) v. 3(3) p. 173-184 2 tables; 29 ref. Summaries (En, In)

ZEBU; DAIRY CATTLE; MILK PRODUCTION; REPRODUCTIVE PERFORMANCE; JAVA.

0205 SUSILOWATI, S.H. [Influence factors on changing of dairy cattle effort management effectivity on various alternatives : case study in Marga Mukti Village, Pangalengan Sub District, Bandung (Indonesia)]. Faktor-faktor yang mempengaruhi kinerja pengelolaan usaha ternak sapi perah ke berbagai usaha alternatif : studi kasus di Desa Marga Mukti, Kecamatan Pangalengan, Kabupaten Bandung/Susilowati, S.H.; Sugiarto; Zakaria, A.K.; Sudana, W.; Supriadi, H.; Supadi; Iqbal, M.; Suryani, E.; Syukur, M.; Soentoro (Pusat Penelitian Sosial Ekonomi Pertanian, Bogor (Indonesia)). [Study on Rural Economy Dynamics: Report on research results: Book 2: special study]. *Studi Dinamika Ekonomi Pedesaan (PATANAS): Laporan hasil penelitian/Pusat Penelitian Sosial Ekonomi Pertanian, Bogor (Indonesia). Bogor (Indonesia): PSE, 2000 (pt.1) p.1-43 1 ill; 19 tables; 8 ref.*

DAIRY CATTLE; LIVESTOCK MANAGEMENT; FARM SURVEYS;



ANIMAL POPULATION; PRODUCTION; FEEDS; PRICES; MILK PRODUCTION; ECONOMIC ANALYSIS; JAVA.

**L02 ANIMAL FEEDING / PAKAN TERNAK**

0206 BALAI PENELITIAN TERNAK, CIAWI. [Milk substitution for calves to produce veal meat]. Susu pengganti anak sapi untuk produksi daging veal/Balai Penelitian Ternak, Ciawi (Indonesia). *Warta Penelitian dan Pengembangan Pertanian (Indonesia)* ISSN 0216-4427 (2001) v. 23(3) p. 15-16 1 ill., 1 table

CALVES; MILK; PRODUCTION; VEAL; COST BENEFIT ANALYSIS; QUALITY.

0207 FARIDA, W.R. [Tannin and its effects to animals]. Tanin dan pengaruhnya pada ternak/Farida, W.R.; Praptiwi; Semiadi, G. (Pusat Penelitian Pengembangan Biologi-LIPI, Bogor (Indonesia)). *Jurnal Peternakan dan Lingkungan (Indonesia)* ISSN 0852-4092 (1998) v. 6(03) p. 66-71 18 ref. Summary (En)

TANNINS; DIGESTIBILITY; MATURATION; POULTRY; FORAGE.

0208 HAFSAH. [Response of broiler chickens on rumen content as rations substitute on feed]. Respon ayam broiler pada penggunaan limbah RPH (isi rumen) sebagai substitusi sebagian ransum basal dalam pakan/Hafsah; Sarjuni, S. (Universitas Tadulako, Palu (Indonesia). Fakultas Pertanian). *Jurnal Agroland (Indonesia)* ISSN 0854-641X (2000) v. 7(1) p. 91-97 3 tables; 8 ref. Summaries (En, In)

BROILER CHICKENS; RATIONS; RUMEN; PROXIMATE COMPOSITION; PROTEIN CONTENT; BODY WEIGHT; FEED CONVERSION EFFICIENCY; GROWTH RATE; CARCASSES.

0209 HARYANTO, B. . [Research report of green feed development of JP 300 support]. Laporan penelitian pengembangan hijauan makanan ternak menunjang JP 300/Haryanto, B.; Sabrani, M.; Winugroho, M.; Sudaryanto, B.; Risdiono, B.; Priyanti, A.; Martindah, E.;

Siahaan, M.; Suyanti, E.; Subiyanto Pusat Penelitian dan Pengembangan Peternakan. Bogor (Indonesia): PUSLITBANGNAK, 1999 65 p. 3 ill., 35 tables; 10 ref.

CATTLE; REARING; STRAW; SUPPLEMENT FERMENTATION; ANIMAL HEALTH; ORGANIC FERTILIZERS; COMPOSTS.

0210 KUSHARTONO, B. [Storage technique and quality increase of rice straw by ammoniation method]. Teknik penyimpanan dan peningkatan kualitas jerami padi dengan cara amoniasi/Kushartono, B. (Balai Penelitian Ternak, Bogor (Indonesia)). *Buletin Teknik Pertanian (Indonesia)* ISSN 0853-8379 (2001) v. 6(2) p. 81-83

RICE STRAW; FEEDS; STORAGE; QUALITY; ALKALI TREATMENT; AMMONIA.

0211 NASSER, A. [Effect of fermented cacao shell flour mixed with concentrates on carcass weight, carcass percentage, and carcass component weight of sheep]. Pengaruh penggunaan tepung kulit buah kakao fermentasi dalam konsentrat terhadap bobot karkas, persentase karkas dan bobot komponen karkas domba lokal/Nasser, A. (Universitas Tadulako, Palu (Indonesia). Fakultas Pertanian). *Jurnal Agroland (Indonesia)* ISSN 0854-641X (2000) v. 7(1) p. 83-90 4 tables; 11 ref. Summaries (En, In)

SHEEP; RATIONS; THEOBROMA CACAO; BYPRODUCTS; FERMENTATION; PROXIMATE COMPOSITION; CHEMICAL COMPOSITION; CARCASSES.

0212 PARAKKASI, A. [Nutrition and feed sciences for ruminants]. Ilmu nutrisi dan makanan ternak ruminan/Parakkasi, A. Universitas Indonesia, Jakarta (Indonesia). Jakarta (Indonesia): UI, 1999 852 p. 14 ill., 15 tables; Bibliography p. 767-810

BEEF CATTLE; DOMESTIC BUFFALOES; BUFFALO MEAT; NUTRITIONAL REQUIREMENTS; FEEDING HABITS; FEEDING SYSTEMS; FATTENING; RATIONS; WEANING; PROXIMATE COMPOSITION; REPRODUCTIVE PERFORMANCE.

0213 RIYANTO, A. Effect of honey supplement on *Mus musculus* mother to the sexual ratio of her baby born. Pengaruh pemberian suplemen madu pada induk mencit terhadap rasio jenis kelamin anaknya/Riyanto, A. (Pusat Penelitian Biologi-LIPI, Bogor (Indonesia). Bidang Zoologi). Berita Biologi (Indonesia). ISSN 0126-1754 (2001) v. 5(4) p. 439-440 2 tables.

RATS; LABORATORY ANIMALS; SUPPLEMENTS; HONEY; SEX RATIO.

0214 SYAHRUDDIN, E. [Addition of niacin (Nicotinic acid) in ration on abdominal fat content and cholesterol of broiler carcass]. Penambahan niasin (Asam nikotinat) dalam ransum terhadap kandungan lemak abdominal dan kolesterol karkas ayam broiler/Syahrudin, E. (Universitas Andalas, Padang (Indonesia). Fakultas Peternakan). Jurnal Peternakan dan Lingkungan (Indonesia) ISSN 0852-4092 (1998) v. 6(03) p. 38-42 2 tables; 7 ref. Summary (En)

BROILER CHICKENS; RATIONS; NICOTINAMIDE; ABDOMINAL FAT; CARCASSES; CHOLESTEROL; WEIGHT GAIN; ANIMAL FEEDING; FEEDS.

0215 WIJONO, D.B. [Opportunity of beef cattle farm efficiency through improving feeds]. Peluang efisiensi usaha sapi potong melalui perbaikan pakan/Wijono, D.B.; Rosyid, A. (Balai Pengkajian Teknologi Pertanian, Karangploso (Indonesia)). [Proceedings of the Agricultural Technology Appreciation in East Java (Indonesia)]. Prosiding Apresiasi Teknologi Pertanian Propinsi Jawa Timur/Kartono, G.; Irianto, D.; Suyanto; Istiqomah, N. (eds.) Balai Pengkajian Teknologi Pertanian Karangploso, Malang (Indonesia). Malang (Indonesia): BPTP Karangploso, 2001 p. 91-101 1 table; 11 ref. Summary (In)

BEEF CATTLE; PROBIOTICS; FEED CONVERSION EFFICIENCY; FATTENING; REPRODUCTION; CO-OPERATIVE FARMING; CAPITAL; APPROPRIATE TECHNOLOGY; MARKETING.

0216 ZEIN, R. [Determination of mineral content on oil palm solid waste that has potential as feed source]. Penentuan kandungan mineral pada limbah padat sawit

yang berpotensi sebagai sumber pakan ternak/Zein, R. (Universitas Andalas, Padang (Indonesia). Fakultas Matematika dan Ilmu Pengetahuan Alam). Jurnal Peternakan dan Lingkungan (Indonesia) ISSN 0852-4092 (1998) v. 6(03) p. 95-99 2 tables; 19 ref. Summary (En)

PALM OILS; SOLID WASTES; MINERAL CONTENT; ANIMAL FEEDING.

#### L10 ANIMAL GENETICS AND BREEDING / GENETIKA DAN PEMULIAAN TERNAK

0217 AMINAH, S. [Survival of goat spermatozoa using Tris thinner emulsion, coconut water, skim and fresh milk]. Daya tahan hidup spermatozoa kambing dengan menggunakan larutan pengencer tris, air kelapa, skim, dan susu murni/Aminah, S.; Layla, Z. (Pusat Penelitian dan Pengembangan Ternak, Bogor (Indonesia)). Buletin Teknik Pertanian (Indonesia) ISSN 0853-8379 (2001) v. 6(2) p. 66-68 1 table; 10 ref.

GOATS; SPERMATOZOA; THINNERS; COCONUT WATER; MILK; SKIM MILK; SURVIVAL.

0218 BALAI PENELITIAN TERNAK CIAWI, BOGOR. [Producing superior sheep and goat through artificial insemination]. Mencetak "Doming" unggul dengan inseminasi buatan/Balai Penelitian Ternak Ciawi, Bogor (Indonesia). Warta Penelitian dan Pengembangan Pertanian (Indonesia) ISSN 0216-4427 (2001) v. 23(3) p. 12-13 2 ill., 1 table

GOATS; SHEEP; ARTIFICIAL INSEMINATION; REPRODUCTION.

0219 DIREKTORAT BINA PEMBIBITAN, JAKARTA. [Technical guidance on development of beef cattle breeding in rural areas]. Petunjuk teknis pengembangan pembibitan pedesaan sapi potong/Direktorat Bina Pembibitan, Jakarta (Indonesia). Jakarta (Indonesia): Direktorat Bina Pembibitan, 1998 15 p. 1 ill. Appendices

BEEF CATTLE; ANIMAL BREEDING; CROSSBREEDING; EMBRYO TRANSFER; PARTNERSHIPS.

0220 DIREKTORAT BINA PEMBIBITAN, JAKARTA. [Technical guidance on development of chicken/duck breeding]. Petunjuk teknis pengembangan pembibitan ayam buras/itik/Direktorat Bina Pembibitan, Jakarta (Indonesia). Jakarta (Indonesia): Direktorat Bina Perbibitan, 1998 12 p.

DUCKS; CHICKENS; ANIMAL BREEDING; SELECTION; MATING SYSTEMS; PARTNERSHIPS.

0221 SUBANDRIYO. [Productivity of new sheep (local+import) crossbreeds]. Domba baru, paduan domba lokal dan impor/Subandriyo (Balai Penelitian Ternak, Bogor (Indonesia)). Warta Penelitian dan Pengembangan Pertanian (Indonesia) ISSN 0216-4427 (2001) v. 23(3) p. 1-3 1 table

SHEEP; ANIMAL POPULATION; PRODUCTIVITY; CROSSBREEDING.

0222 TAWFIK, E.S. Basic concept of animal breeding: some considerations in genetic improvement/Tawfik, E.S. (University of Kassel, Germany), Department of Animal Husbandry); Sodiq, A. (Universitas Jenderal Soedirman, Purwokerto, (Indonesia). Fakultas Peternakan). Animal Production (Indonesia) = Jurnal Produksi Ternak ISSN 1411-2027 (2002) v. 4(1) p. 44-51 5 ill., 12 ref. Summary (In)

LIVESTOCK; SELECTION; ANIMAL BREEDING; ANIMAL POPULATION; ANIMAL PRODUCTION; CROSS-BREEDING; PURE BREEDING; BREEDING METHODS.

## L52 ANIMAL PHYSIOLOGY - GROWTH AND DEVELOPMENT / FISILOGI TERNAK - PERTUMBUHAN DAN PERKEMBANGAN

0223 JOHNNY, F. [Characteristics morphology of blood cell of napoleon fish (*Cheilinus undulatus*)]. Karakteristik dan morfologi darah ikan napoleon, *Cheilinus undulatus*/Johnny, F.; Roza, D.; Slamet, B. (Balai Besar Riset Perikanan Budidaya Laut Gondol, Bali (Indonesia)). [Breeding contribution on technology innovation with environmental friendly]. Kontribusi pemuliaan dalam inovasi teknologi ramah lingkungan

/Kasno, A.; Lamadji, S.; Basuki, N.; Arsyad, D.M.; Mardjono, R.; Mirzaman; Boswarsiati; Sudjindro (eds.). Perhimpunan Ilmu Pemuliaan Indonesia, Malang (Indonesia). Komisariat Daerah Jawa Timur. Bandung (Indonesia): Perhimpunan Ilmu Pemuliaan Indonesia, 2001 p.140-143 1 table; 16 ref. Summaries (En, In)

SALTWATER FISHES; ORNAMENTAL FISHES; FISH FARMS; ANIMAL MORPHOLOGY; BLOOD CELLS; IMMUNITY.

## L53 ANIMAL PHYSIOLOGY - REPRODUCTION / FISILOGI HEWAN - REPRODUKSI

0224 MELIANAWATI, R. [Effect of different incubation temperatures on the embryonic development, incubation period and hatching rate]. Pola perkembangan embrio dan derajat tetas telur ikan kerapu bebek (*Cromileptes altivelis*) pada suhu inkubasi berbeda/Melianawati, R.; Imanto, P.T.; Lante, S. (Balai Besar Perikanan Budidaya Laut, Gondol-Bali (Indonesia)). [Breeding contribution on technology innovation with environmental friendly]. Kontribusi pemuliaan dalam inovasi teknologi ramah lingkungan /Kasno, A.; Lamadji, S.; Basuki, N.; Arsyad, D.M.; Mardjono, R.; Mirzaman; Boswarsiati; Sudjindro (eds.). Perhimpunan Ilmu Pemuliaan Indonesia, Malang (Indonesia). Komisariat Daerah Jawa Timur. Bandung (Indonesia): Perhimpunan Ilmu Pemuliaan Indonesia, 2001 p. 128-133 3 ill., 8 ref. Summaries (En, In)

GROUPERS; EMBRYONIC DEVELOPMENT; EGG INCUBATION; TEMPERATURE; HATCHING.

0225 RUDIAH. [Effect of testosterone hormone on male rabbits physiology]. Pengaruh pemberian hormon testosteron terhadap status faali kelinci jantan/Rudiah; Mardiah (Universitas Tadulako, Palu (Indonesia). Fakultas Pertanian). Jurnal Ilmu-Ilmu Pertanian Agroland (Indonesia) ISSN 0854-641X 2002 v. 9(1) p. 98-102 2 tables; 11 ref. Summaries (En, In)

RABBITS; TESTOSTERONE; HORMONES; ANDROGENS; ANIMAL PHYSIOLOGY.

0226 TRIDJOKO. [Effect of egg density in grouper incubation on hatching time, hatching rate, and survival of early stage larvae]. Pengaruh kepadatan telur pada inkubasi ikan kerapu bebek terhadap waktu penetasan, daya tetas dan kelangsungan hidup larva pada stadia awal (D3)/Tridjoko; Setiadi, E.; Wardoyo; Ismi, S. (Balai Riset Perikanan Budidaya Laut Gondol, Bali (Indonesia)). [Breeding contribution on technology innovation with environmental friendly]. Kontribusi pemuliaan dalam inovasi teknologi ramah lingkungan /Kasno, A.; Lamadji, S.; Basuki, N.; Arsyad, D.M.; Mardjono, R.; Mirzaman; Boswarsiaty; Sudjindro (eds.). Perhimpunan Ilmu Pemuliaan Indonesia, Malang (Indonesia). Komisariat Daerah Jawa Timur. Bandung (Indonesia): Perhimpunan Ilmu Pemuliaan Indonesia, 2001 p. 134-139 4 tables; 20 ref. Summaries (En, In)

GROUPERS; EGG INCUBATION; EGG HATCHABILITY; HATCHING; DOSAGE EFFECTS; FISH LARVAE; DENSITY.

### L73 ANIMAL DISEASES / PENYAKIT TERNAK

0227 BUTAR-BUTAR, O.S. [Foot and mouth disease, mad cow and anthrax threaten beef cattle development in Indonesia]. PMK, BSE, dan antraks ancaman pengembangan sapi di Indonesia/Butar-butar, O.S. Warta Penelitian dan Pengembangan Pertanian (Indonesia) ISSN 0216-4427 (2001) v. 23(5) p. 4-7 3 ill.

BEEF CATTLE; ANTHRAX; FOOT AND MOUTH DISEASES; DISEASE CONTROL; INDONESIA.

0228 MARIYONO. [Effect of garlic extracts on the survival of catfish larvae infected by *Aeromonas hydrophila*]. Pengaruh ekstrak bawang putih terhadap kelangsungan hidup benih lele dumbo yang diinfeksi *Aeromonas hydrophila*/Mariyono; Puspitasari, A.; Sutomo (Balai Penelitian Perikanan Air Tawar Sukamandi, Subang (Indonesia)). Buletin Teknik Pertanian (Indonesia) ISSN 0853-8379 (2001) v. 6(1) p. 35-38 1 table; 24 ref.

CLARIAS; FISH LARVAE; AEROMONAS HYDROPHILA; INFECTION; DISEASE CONTROL; BIOLOGICAL CONTROL;

GARLIC; PLANT EXTRACTS; SOAKING; SURVIVAL.

0229 MARIYONO. [Identification technique of immunogenic element of *Saccharomyces cerevisiae* and *Candida* sp. to increase carp immune]. Teknik identifikasi unsur imunogenik *Saccharomyces cerevisiae* dan *Candida* sp. untuk meningkatkan kekebalan ikan mas/Mariyono; Sundana, A. (Balai Penelitian Perikanan Air Tawar, Subang (Indonesia)). Buletin Teknik Pertanian (Indonesia) ISSN 0853-8379 (2001) v. 6(1) p. 24-25 3 tables; 4 ref.

CYPRINUS CARPIO; DISEASE RESISTANCE; FEEDS; SACCHAROMYCES CEREVISIAE; CANDIDA; SURVIVAL.

0230 NATALIA, L. Visceral manifestation of blackloeg in animals. Manifestasi visceral penyakit radang paha pada hewan/Natalia, L. (Balai Penelitian Veteriner, Bogor (Indonesia)). Jurnal Ilmu Ternak dan Veteriner (Indonesia) ISSN 0853-7380 (2000) v. 5(1) p. 53-58 2 ill., 1 table; 13 ref. Summaries (En, In)

RUMINANTS; BLACKLEG; CLOSTRIDIUM CHAUVOEI; ANIMAL DISEASES; BACTERIA; MICROBIOLOGICAL ANALYSIS.

0231 PRIADI, A. Pathogenesis of *Haemorrhagic septicaemia* (HS) in cattle and buffalo: clinical signs, pathological changes, reisolation and detection of *Pasteurella multocida* using culture medium and Polymerase Chain Reaction (PCR). Patogenesis *Septicaemia epizootica* (SE) pada sapi/kerbau: gejala klinis, perubahan patologis, reisolasi, deteksi *Pasteurella multocida* dengan media kultur dan Polymerase Chain Reaction (PCR)/Priadi, A.; Natalia, L. (Balai Penelitian Veteriner, Bogor (Indonesia)). Jurnal Ilmu Ternak dan Veteriner (Indonesia) ISSN 0853-7380 (2000) v. 5(1) p. 65-71 1 ill., 4 tables; 16 ref. Summaries (En, In)

CATTLE; WATER BUFFALOES; HAEMORRHAGIC SEPTICAEMIA VIRUS; PASTEURELLA MULTOCIDA; PCR; PATHOGENESIS; CULTURE MEDIA.

0232 SUTARMA. [Identification technique of *Haemophilus* spp positive catalase]. Teknik identifikasi *Haemophilus* spp. katalase positif/ Sutarma (Balai Penelitian Veteriner, Bogor (Indonesia)). Buletin Teknik Pertanian (Indonesia) ISSN 0853-8379 (2001) v. 6(1) p. 11-13 2 ill., 3 tables; 5 ref.

CHICKENS; ENZYMES; CATALASE; ANIMAL DISEASES; IDENTIFICATION; HAEMOPHILUS; CULTURE MEDIA; GROWTH.

0233 WAHYUDI, A. [Sorptions level of several antibiotics by carp blood]. Tingkat penyerapan beberapa antibiotika oleh darah ikan mas/Wahyudi, A.; Mariyono; Sutomo (Balai Penelitian Perikanan Air Tawar, Sukamandi (Indonesia)). Buletin Teknik Pertanian (Indonesia) ISSN 0853-8379 (2001) v. 6(2) p. 72-73 2 tables; 6 ref.

CYPRINUS CARPIO; BLOOD; ANTIBIOTICS; ABSORPTION; DOSAGE; APPLICATION RATES.

#### **M11 FISHERIES PRODUCTION / PRODUKSI PERIKANAN**

0234 SUSILOWATI, S.H. [Dynamics of capture fisheries performance in south coastal area, West Java (Indonesia): case in Karangjaladri village]. Dinamika kinerja usaha perikanan tangkap di pesisir selatan Jawa Barat: kasus Desa Karangjaladri /Susilowati, S.H.; Sugiarto; Zakaria, A.K.; Sudana, W.; Supriadi, H.; Supadi; Iqbal, M.; Suryani, E.; Syukur, M.; Soentoro (Pusat Penelitian Sosial Ekonomi Pertanian, Bogor (Indonesia)). [Study on Rural Economy Dynamics: report on research results: Book 2: special study]. Studi Dinamika Ekonomi Pedesaan (PATANAS): laporan hasil penelitian/Pusat Penelitian Sosial Ekonomi Pertanian, Bogor (Indonesia). Bogor (Indonesia): PSE, 2000 (pt.3) p.1-23 10 tables; 11 ref.

FISH FARMS; MARINE FISHERIES; EFFICIENCY; FISHERY PRODUCTION; FARM SURVEYS; RAPID RURAL APPRAISAL; FISH CAGE; FISHING METHODS; FISHING GEAR; ECONOMIC ANALYSIS; FARM INCOME; MARKETING.

#### **M12 AQUACULTURE PRODUCTION AND MANAGEMENT / PRO- DUKSI DAN PENGELOLAAN BUDIDAYA PERAIRAN**

0235 AKRIMI. [Application of azolla as feed additive on red nila (*Oreochromis* sp.)]. Pemberian azolla sebagai pakan tambahan ikan nila merah/Akrimi (Balai Riset Perikanan Perairan Umum, Mariana (Indonesia)). Buletin Teknik Pertanian (Indonesia) ISSN 0853-8379 (2001) v. 6(2) p. 63-65 1 ill., 1 table; 9 ref.

OREOCHROMIS; FEED ADDITIVES; AZOLLA; PROXIMATE COMPOSITION; BODY WEIGHT; CAGE CULTURE; WATER QUALITY.

0236 BALAI PENGKAJIAN TEKNOLOGI PERTANIAN JAWA TENGAH, UNGARAN [Shrimps stunting on fish pond]. Pentokolan udang windu di tambak/Balai Pengkajian Teknologi Pertanian Jawa Tengah, Ungaran (Indonesia). Ungaran (Indonesia): BPTP, 2001 36 p. 7 ill., 3 tables; 5 ref.

PENAEUS MONODON; FISH PONDS; FISH FEEDING; REARING TECHNIQUES; WATER QUALITY; WATER CIRCULATION; SURVIVAL; ECONOMIC ANALYSIS

0237 SUTOMO. [Controlled technique of *Osphronemus gouramy* eggs in aquarium]. Teknik penetasan telur gurami secara terkontrol di akuarium/Sutomo; Wahyudi, A.; Puspitasari, A. (Balai Penelitian Perikanan Air Tawar Sukamandi, Subang (Indonesia)). Buletin Teknik Pertanian (Indonesia) ISSN 0853-8379 (2001) v. 6(2) p. 55-57 4 tables; 4 ref.

OSPHRONEMUS; FISH FARMS; OVI-POSITION; AQUARIA; FISH LARVAE; ANIMAL DEVELOPMENT STAGES; MORTALITY; WATER QUALITY.

#### **M40 AQUATIC ECOLOGY / EKOLOGI PERAIRAN**

0238 TJAKRAWIDJAJA, A.H. Study on bony tongue/kaloso fish (*Scleropages jardinii*) population in Rawa Pomo, district of Citak Mitak, Merauke Regency-Papua (Indonesia). Studi populasi ikan Kaloso (*Scleropages*

*jardini*) di Rawa Pomo Kecamatan Citak Mitak, Kabupaten Merauke, Papua/Tjakrawidjaja, A.H; Haryono (Balai Penelitian Pengembangan Zoologi, Bogor (Indonesia)). *Berita Biologi (Indonesia)* ISSN 0126-1754 (2001) v. 5(4) p. 357-364 1 ill.; 4 tables; 14 ref. Summary (En)

FRESHWATER FISHES; ORNAMENTAL FISHES; ANIMAL POPULATION; SPECIES; AQUATIC ENVIRONMENT; CHEMICOPHYSICAL PROPERTIES; BIODIVERSITY; IRIAN JAYA.

#### **N10 AGRICULTURAL STRUCTURES / BANGUNAN-BANGUNAN PERTANIAN**

0239 TRI, M.L. [Agricultural machinery technology to support organic farming system]. *Teknologi Alsintan mendukung usaha tani organik/Tri, M.L.; Sulistiadji, K.* (Balai Besar Pengembangan Alat dan Mesin Pertanian, Serpong (Indonesia)). *Warta Penelitian dan Pengembangan Pertanian (Indonesia)* ISSN 0216-4427 (2002) v. 24(1) p. 16-17 3 ill.

ORGANIC AGRICULTURE; FARM EQUIPMENT; CONSTRUCTION; TRACTORS.

#### **N20 AGRICULTURAL MACHINERY AND EQUIPMENT / MESIN-MESIN DAN PERALATAN PERTANIAN**

0240 DESNAYA, M. [Operational mechanism of direct seeding equipment serpong type]. *Mekanisme kerja alat tanam benih langsung (atabela) tipe serpong/Desnaya, M.* (Balai Besar Pengembangan Alat dan Mesin Pertanian, Serpong (Indonesia)). *Buletin Teknik Pertanian (Indonesia)* ISSN 0853-8379 (2001) v. 6(1) p. 32-34 1 ill., 3 ref.

ORYZA SATIVA; FARM EQUIPMENT; DIRECT SOWING; PROTOTYPES; MANUAL OPERATION.

0241 DIREKTORAT BINA PRODUKSI HORTIKULTURA, JAKARTA. [Book of horticultural machinery application]. *Buku aplikasi alsin hortikultura/Direktorat Bina Produksi Hortikultura, Jakarta (Indonesia).* Jakarta (Indonesia): Direktorat Bina Produksi Hortikultura, 1997 27 p. 9 ill., 9 tables

HORTICULTURE; FARM EQUIPMENT; EQUIPMENT CHARACTERISTICS; EQUIPMENT PERFORMANCE; EQUIPMENT TESTING; WEED CONTROL EQUIPMENT; IRRIGATION EQUIPMENT; PIPES.

0242 KINDANGEN, J.G. [Study on introducing technology of cacao bean dryer]. *Pengkajian introduksi teknologi alat pengering biji kakao sederhana/Kindangen, J.G.; Aksono, R.; Anasiru, R.H.* [Annual Report of Assessment Institute for Agricultural Technology (BPTP) Biromaru (Indonesia) 1999/2000 fiscal year]. *Laporan Tahunan Balai Pengkajian Teknologi Pertanian (BPTP) Biromaru T.A. 1999/2000/Balai Pengkajian Teknologi Pertanian, Biromaru, Palu (Indonesia).* Palu (Indonesia): BPTP Biromaru, 2000 p. 39-44 1 ill., 2 tables

COCOA BEANS; DRYERS; FERMENTATION; DRYING; MOISTURE CONTENT; PH; TEMPERATURE; MARKETING; QUALITY; CHEMICOPHYSICAL PROPERTIES.

0243 KRAMADIBRATA, A.M. Identification of rough geometric structures resulted from observations of mouldboard working surface. *Identifikasi struktur geometrik bajak berdasarkan observasi permukaan kerja singkal/Kramadibrata, A.M.* (Universitas Padjadjaran, Bandung (Indonesia)). *Bionatura (Indonesia): Jurnal Ilmu-ilmu Hayati dan Fisik Padjadjaran* ISSN 1411-0903 (2001) v. 3(3) p. 161-172 4 ill., 3 tables; 7 ref. Summaries (En, In)

MOULDBOARD PLOUGHS; LOWLAND; UPLAND SOILS; SOIL MECHANICS.

0244 SUB DIREKTORAT ALAT DAN MESIN, JAKARTA. [Book of horticultural machinery application]. *Buku penggunaan alat mesin hortikultura/Sub Direktorat Alat dan Mesin, Jakarta (Indonesia).* Jakarta (Indonesia): Direktorat Bina Produksi Hortikultura, 1997 151 p. 59 ill., 5 ref. Appendices

HORTICULTURE; TILLAGE EQUIPMENT; SPRAYERS; TOPPERS; HASVESTERS; POSTHARVEST EQUIPMENT; EQUIPMENT CHARACTERISTICS

0245 THAHIR, R. [Dryer machine for soybean]. Mesin pengering kedelai handal/Thahir, R.; Nasution, D.A.; Joko, P.; Anna, N. (Balai Besar Pengembangan Alat dan Mesin Pertanian, Serpong (Indonesia)). *Warta Penelitian dan Pengembangan Pertanian (Indonesia)* ISSN 0216-4427 (2001) v. 23(3) p. 5-6

SOYBEANS; DRYERS; FARM EQUIPMENT.

**P01 NATURE CONSERVATION AND LAND RESOURCES / KONSERVASI SUMBER DAYA ALAM DAN SUMBER DAYA LAHAN**

0246 SARASWATI, D.P. [Agroecological zone in East Java (Indonesia): zonation and characterization of land resources]. *Zona agroekologi Jawa Timur: zonasi dan karakterisasi sumberdaya lahan/Saraswati, D.P.; Suyamto, H.; Setyorini, D.; Pratomo, A.I.G.; Krisnadi, L.Y.* Instalasi Penelitian dan Pengkajian Teknologi Pertanian Wonocolo, Surabaya (Indonesia). Surabaya (Indonesia): IP2TP Wonocolo, 2001 28 p. 1 ill., 5 ref. Appendices

JAVA; ENVIRONMENT; AGROCLIMATIC ZONES; LAND RESOURCES; SOIL ZONATION; AGRICULTURAL PRODUCTS; PLANT PRODUCTION.

0247 SETYARSO, A. [Ecosystem landscaping approach in plantation development]. Pendekatan lansekap ekosistem dalam pembangunan perkebunan/Setyarso, A. (World Wide Fund, Jakarta (Indonesia)). [Seminar on Sustainability of Plantation Developments]. Seminar Sehari Pembangunan Perkebunan Berkelanjutan/Max Havelaar Indonesia Foundation, Jakarta (Indonesia). Jakarta (Indonesia): Max Havelaar Indonesia Foundation, 2002 (pt.5) p.1-7 1 ill; 4 ref.

PLANTATIONS; LANDSCAPE CONSERVATION; SUSTAINABILITY; ECOSYSTEMS.

0248 SIMBOLON, H. Secondary succession after selective logging of lowland mixed Dipterocarps forest at Taileleu Village, Siberut Island National Park, West Sumatra (Indonesia). Suksesi sekunder pasca tebang

pilih hutanhayati Irian Jaya/Supriatna, J.; Fretes, Y.; Wijayanto, I. Jakarta (Indonesia): Conservation International Indonesia, 2000 27 p. 4 ill., 3 tables; 10 ref.

FLORA; FAUNA; BIODIVERSITY; ECOSYSTEMS; TAXA; NATURE CONSERVATION; IRIAN JAYA.

0249 SUSILO, F.X. Conservation of resource agrobiota: evaluation of current agricultural management practices in Lampung/Susilo, F.X.; Evizal, R.; Swibawa, I G.; Murwani, S.; Rustiati, E.L. *Proceedings of Workshop Management of Agrobiodiversity in Indonesia for Sustainable Land Use and Global Environmental Benefits/Gafur, A.; Susilo, F.X.; Utomo, M.; Noordwijk, M.V.* (eds.) Badan Penelitian dan Pengembangan Pertanian, Jakarta (Indonesia); Universitas Lampung, Bandar Lampung (Indonesia). Jakarta (Indonesia): AARD, 1999 p. 1-7 24 ref.

IMPERATA; CONSERVATION TILLAGE; AGROFORESTRY; AGROECOSYSTEMS; LAMPUNG.

**P05 ENERGY RESOURCES MANAGEMENT / SUMBER DAYA ENERGI DAN PENGELOLAANNYA**

0250 SUSILOWATI, S.H. [Farmland conversion in relation with farmer incomes: case study in Nagrak Village, Bandung (Indonesia)]. Konversi lahan pertanian dalam kaitannya dengan pendapatan petani: studi kasus Desa Nagrak, Kabupaten Bandung/Susilowati, S.H.; Sugiarto; Zakaria, A.K.; Sudana, W.; Supriadi, H.; Supadi, Iqbal, M.; Suryani, E.; Syukur, M.; Soentoro (Pusat Penelitian Sosial Ekonomi Pertanian, Bogor (Indonesia)). [Study on Rural Economy Dynamics: Report on Research Results : Book 2: special study]. Studi Dinamika Ekonomi Pedesaan (PATANAS): laporan hasil penelitian/Pusat Penelitian Sosial Ekonomi Pertanian, Bogor (Indonesia). Bogor (Indonesia): PSE, 2000 (pt. 2) p. 1-20 14 tables; 5 ref.

AGRICULTURAL RESOURCES; FARM-LAND; LAND POLICIES; LAND DIVERSION; LAND CONSOLIDATION; FARM INCOME; JAVA.

**P10 WATER RESOURCES AND  
MANAGEMENT / SUMBER DAYA  
AIR DAN PENGELOLAANNYA**

0251 AFANDI. Baseline biophysical information about the Tulang Bawang watershed area, North Lampung (Indonesia)/ Afandi, Gafur, A.; Swibawa, I G. (Universitas Lampung, Bandar Lampung (Indonesia)); Purnomosidhi, P. Proceedings of Workshop Management of Agrobiodiversity in Indonesia for Sustainable Land Use and Global Environmental Benefits/Gafur, A.; Susilo, F.X.; Utomo, M.; Noordwijk, M.V. (eds.) Badan Penelitian dan Pengembangan Pertanian, Jakarta (Indonesia); Universitas Lampung, Bandar Lampung (Indonesia). Jakarta (Indonesia): AARD, 1999 p. 176-192 4 ill., 13 tables; 10 ref.

SUMATRA; BIOPHYSICS; INFORMATION SYSTEMS; WATERSHEDS; AGROCLIMATIC ZONES; TOPOGRAPHY.

0252 IRIANTO, G. [Strategy of management and development of water resources potential to increase agricultural production in Indonesia] . Strategi pengelolaan dan pengembangan potensi sumberdaya air untuk peningkatan produksi pertanian Indonesia/Irianto, G.; Agus, F. [Proceeding of the National Seminar on Utilization of Soil Resources, Climate and Fertilizer, Book 1]. Prosiding Seminar Nasional Reorientasi Pendayagunaan Sumberdaya Tanah, Iklim, dan Pupuk, Buku 1/Sofyan, A.; Irianto, G.; Agus, F.; Irawan; Suryanto, W.J.; Prihatini, T.; Anda, M. (eds.). Pusat Penelitian dan Pengembangan Tanah dan Agroklimat, Bogor (Indonesia). Bogor (Indonesia): PUSLIT-BANGTANAK, 2001 p. 113-136 5 ill. Bibliography (p. 133-136)

INDONESIA; WATER RESOURCES; AGRICULTURAL DEVELOPMENT; PRODUCTION INCREASE; IRRIGATION; RICE FIELDS.

0253 MANAN, H. [Concept of water resources management for irrigation development]. Konsep pemanfaatan sumberdaya air untuk pengembangan irigasi/Manan, H. (Direktorat Jenderal Prasarana dan Sarana Pertanian, Jakarta (Indonesia)). [Proceeding of the National Seminar on Utilization of Soil Resources, Climate and Fertilizer, Book 1]. Prosiding Seminar Nasional Reorientasi Pendayagunaan Sumberdaya Tanah, Iklim,

dan Pupuk, Buku 1/Sofyan, A.; Irianto, G.; Agus, F.; Irawan; Suryanto, W.J.; Prihatini, T.; Anda, M. (eds.) Pusat Penelitian dan Pengembangan Tanah dan Agroklimat, Bogor (Indonesia). Bogor (Indonesia): PUSLIT-BANGTANAK, 2001 p. 97-111

INDONESIA; WATER RESOURCES; USES; IRRIGATION WATER; HUMAN RESOURCES; NATURAL RESOURCES.

0254 MURTIONO, U.H. [Technical guide: measuring and calculation of morphometry parameters of watershed (catchment) areas]. Pedoman teknis: pengukuran dan perhitungan parameter morfometri DAS/Murtiono, U.H.. Info Das (Indonesia): Visi & Misi BTP DAS Surakarta ISSN 1410-114 (2001) (no. 10) p. 1-26 12 ill., 5 ref.

WATERSHEDS; MEASUREMENT; DRAINAGE.

0255 NURWIYANTO. [Estimation technique of waters fertility level in north economic zone (ZEE) Irian Jaya (Indonesia) through chlorophyll A analyzes]. Teknik pendugaan tingkat kesuburan perairan di ZEE utara Irian Jaya dengan analisis klorofil-A/Nurwiyanto; Sudjianto (Balai Penelitian Perikanan Laut, Jakarta (Indonesia)). Buletin Teknik Pertanian (Indonesia) ISSN 0853-8379 (2001) v. 6(1) p. 39-41 2 ill., 2 tables; 4 ref.

IRIAN JAYA; SEA WATER; CHLOROPHYLLS; WATER ANALYSIS.

0256 PRAMONO, I.B. [Technical guide: calculation of debit with area slope method]. Pedoman teknis: perhitungan debit dengan metode slope area/Pramono, I.B.; Supangat, A.B.; Murtiono, U.H.. Info Das (Indonesia): Visi & Misi BTP DAS Surakarta ISSN 1410-114 (2001) (no. 10) p. 27-40 4 ill., 5 tables; 4 ref.

DEBIT; AGRICULTURAL HYDRAULICS; SLOPING LAND.

0257 PRAMONO, I.B. [Technical guide: water content calculation with Thornthwaite and mather method]. Pedoman teknis: perhitungan neraca dengan metode Thornthwaite & mather/Pramono, I.B.; Adi,



R.N.. Info Das (Indonesia): Visi & Misi BTP DAS Surakarta ISSN 1410-114 (2001) (no. 11) p. 13-37 14 tables; 3 ref. Appendices

SOIL WATER BALANCE; DEBIT; RAIN; EVAPOTRANSPIRATION.

0258 SUKRESNO. [Technical guide: calculation and analysis of hydrograph unit]. Pedoman teknis: perhitungan dan analisis hidrograf satuan/Sukresno. Info Das (Indonesia): Visi & Misi BTP DAS Surakarta ISSN 1410-114 (2001) (no. 11) p. 1-12 2 ill., 3 tables; 4 ref.

HYDROGRAPHY; RIVERS; DATA ANALYSIS; RAIN.

0259 SUMARYANTO. [Change the paradigm of water resources utilization and its implication to development strategy of food production]. Perubahan paradigma pendayagunaan sumberdaya air dan implikasinya terhadap strategi pengembangan produksi pangan/Sumaryanto; Sudaryanto, T. (Pusat Penelitian dan Pengembangan Sosial Ekonomi Pertanian, Bogor (Indonesia)). Forum Penelitian Agro Ekonomi (Indonesia) ISSN 0216-4361 (2001) v. 19(2) p. 66-79 3 tables; 33 ref. Summaries (En, In)

FOODS; DIVERSIFICATION; WATER RESOURCES; EFFICIENCY; WATER USE; WATER RESERVOIRS; IRRIGATION METHODS; PRODUCTIVITY; SUSTAINABILITY.

### **P11 DRAINAGE / PENGAIRAN**

0260 KURNIA, U. [Concept of land resources utilization for horticultural development]. Konsep pendayagunaan sumberdaya lahan untuk pengembangan tanaman hortikultura/Kurnia, U.; Sulaeman, Y.; Hidayat, A.. [Proceeding of the National Seminar on Utilization of Soil Resources, Climate and Fertilizer, Book 1]. Prosiding Seminar Nasional Reorientasi Pendayagunaan Sumberdaya Tanah, Iklim, dan Pupuk, Buku 1/Sofyan, A.; Irianto, G.; Agus, F.; Irawan; Suryanto, W.J.; Prihatini, T.; Anda, M. (eds.) Pusat Penelitian dan Pengembangan Tanah dan Agroklimat, Bogor (Indonesia). Bogor (Indonesia): PUSLITBANGTANAK, 2001 p. 55-69 7 tables; 15 ref.

VEGETABLE CROPS; FRUIT CROPS; LAND RESOURCES; LAND USE; PRODUCTION INCREASE; LAND SUITABILITY.

### **P33 SOIL CHEMISTRY AND PHYSICS / KIMIA DAN FISIKA TANAH**

0261 HAIRIAH, K. Decomposition process and activity of soil engineers when forests are converted into agricultural use/Hairiah, K. (Universitas Brawijaya, Malang (Indonesia). Fakultas Pertanian). Proceedings of Workshop Management of Agrobiodiversity in Indonesia for Sustainable Land Use and Global Environmental Benefits/Gafur, A.; Susilo, F.X.; Utomo, M.; Noordwijk, M.V. (eds.) Badan Penelitian dan Pengembangan Pertanian, Jakarta (Indonesia); Universitas Lampung, Bandar Lampung (Indonesia). Jakarta (Indonesia): AARD, 1999 p. 53-61 4 ill., 2 tables; 10 ref.

FOREST SOILS; LAND MANAGEMENT; SOIL BIOLOGY; SOIL ORGANIC MATTER; FARMLAND.

0262 HARSALENA. [Management of soil organic matter]. Pengelolaan bahan organik tanah/Harsalena Universitas Ekasakti, Padang (Indonesia). Fakultas Pertanian Jurusan Tanah. Padang (Indonesia): Universitas Ekasakti, 1998 43 p. 5 tables; 20 ref.

SOIL ORGANIC MATTER; SOIL CHEMICAL PHYSICAL PROPERTIES; ORGANIC FERTILIZERS; SOIL MICRO-ORGANISM; EROSION.

0263 MANSUR. [Identification of pyrite depth in the field]. Identifikasi kedalaman lapisan pirit di lapangan/Mansur (Pusat Penelitian dan Pengembangan Tanah dan Agroklimat, Bogor (Indonesia)). Buletin Teknik Pertanian (Indonesia) ISSN 0853-8379 (2001) v. 6(2) p. 74-76 3 tables; 4 ref.

SUMATRA; SOIL CHEMISTRY; IDENTIFICATION; ACIDITY; DEPTH; SOIL TYPES.

### **P34 SOIL BIOLOGY / BIOLOGI TANAH**

0264 AFANDI. Functional relationship between macrofauna and the regeneration of

sediment filter among events in soil environment/Afandi (Universitas Lampung, Bandar Lampung (Indonesia). Fakultas Pertanian). Proceedings of Workshop Management of Agrobiodiversity in Indonesia for Sustainable Land Use and Global Environmental Benefits/Gafur, A.; Susilo, F.X.; Utomo, M.; Noordwijk, M.V. (eds.) Badan Penelitian dan Pengembangan Pertanian, Jakarta (Indonesia); Universitas Lampung, Bandar Lampung (Indonesia). Jakarta (Indonesia): AARD, 1999 p. 62-73 2 ill., 4 tables; 19 ref.

CROPS; SOIL MICROORGANISMS; SOIL FAUNA; SEDIMENT; WEED CONTROL; SOIL CONSERVATION.

0265 HARDIWINOTO, S. Diversity, population and biomass of soil macrofauna in several land use systems in Jambi, Central part of Sumatra (Indonesia)/Hardiwinoto, S.; Prijono, A. (Universitas Gadjah Mada, Yogyakarta (Indonesia). Fakultas Kehutanan). Proceedings of Workshop Management of Agrobiodiversity in Indonesia for Sustainable Land Use and Global Environmental Benefits/Gafur, A.; Susilo, F.X.; Utomo, M.; Noordwijk, M.V. (eds.). Badan Penelitian dan Pengembangan Pertanian, Jakarta (Indonesia); Universitas Lampung, Bandar Lampung (Indonesia). Jakarta (Indonesia): AARD, 1999 p. 29-34 5 ref.

SOIL MICROORGANISMS; BIOMASS; BIODIVERSITY; LAND USE; SUMATRA.

0266 NURJANNA. [Isolation, identification, and determination of bacteria numbers in peat soils]. Isolasi, identifikasi, dan Penentuan jumlah bakteri asal tambak tanah gambut/Nurjanna (Balai Penelitian Perikanan Pantai, Maros (Indonesia)). Buletin Teknik Pertanian (Indonesia) ISSN 0853-8379 (2001) v. 6(2) p. 77-80 2 tables; 6 ref.

BACTERIA; SOIL BIOLOGY; GENERA; IDENTIFICATION; ISOLATION; PONDS; PEAT SOILS.

0267 SETIADI, Y. Mycorrhiza for diversified tree establishment in Imperata grassland/Setiadi, Y. (Institut Pertanian Bogor (Indonesia)). Proceedings of Workshop Management of Agrobiodiversity in Indonesia for Sustainable Land Use and Global environmental Benefits/Gafur, A.; Susilo,

F.X.; Utomo, M.; Noordwijk, M.V. (eds.) Badan Penelitian dan Pengembangan Pertanian, Jakarta (Indonesia); Universitas Lampung, Bandar Lampung (Indonesia). Jakarta (Indonesia): AARD, 1999 p. 81-92 1 table; 24 ref.

IMPERATA; GRASSLANDS; VESICULAR ARBUSCULAR MYCORRHIZAE; BIODIVERSITY.

0268 SIMANUNGKALIT, R.D.M. Diversity of rhizobia in agricultural lands and the need for inoculation/Simanungkalit, R.D.M. (Balai Penelitian Bioteknologi Tanaman Pangan, Bogor (Indonesia). Proceedings of Workshop Management of Agrobiodiversity in Indonesia for Sustainable Land Use and Global Environmental Benefits/Gafur, A.; Susilo, F.X.; Utomo, M.; Noordwijk, M.V. (eds.) Badan Penelitian dan Pengembangan Pertanian, Jakarta (Indonesia); Universitas Lampung, Bandar Lampung (Indonesia). Jakarta (Indonesia): AARD, 1999 p. 74-80 5 tables; 8 ref.

RHIZOBIACEAE; FARM LAND; INOCULATION METHODS; NITROGEN FIXING BACTERIA; BIODIVERSITY; RHIZOBIUM LEGUMINOSARUM; BRADYRHIZOBIUM.

0269 SUPRAYOGO, D. Alteration of interactions between macrofauna soil structures, and infiltration processes for soil conservation of agriculture lands on slopes/Suprayogo, D. (Universitas Brawijaya, Malang (Indonesia). Fakultas Pertanian). Proceedings of Workshop Management of Agrobiodiversity in Indonesia for Sustainable Land Use and Global Environmental Benefits/Gafur, A.; Susilo, F.X.; Utomo, M.; Noordwijk, M.V. (eds.) Badan Penelitian dan Pengembangan Pertanian, Jakarta (Indonesia); Universitas Lampung, Bandar Lampung (Indonesia). Jakarta (Indonesia): AARD, 1999 p. 35-52 7 ill., 3 tables; 22 ref.

SOIL MICROORGANISMS; SOIL STRUCTURE; SOIL CONSERVATION; FARMLAND; SLOPING LAND.

0270 WIJAYANI, S. Effect of source of Ectomycorrhizae inoculant and phosphorus supply on the growth of *Eucalyptus urophylla* Seedling. Pengaruh bentuk inokulan ektomikoriza dan dosis fosfat terhadap

pertumbuhan semai ampupu (*Eucalyptus urophylla*)/Wijayani, S. (Institut Pertanian STIPER, Yogyakarta (Indonesia). Fakultas Kehutanan). [Compilation of paper presented at the Eight-Thirteenth monthly Seminar in STIPER Agricultural Institute (January-November 2000)]. Kumpulan Makalah Seminar Bulanan Periode VIII-XIII (Januari s.d. November 2000)/Institut Pertanian STIPER, Yogyakarta (Indonesia). Yogyakarta (Indonesia): STIPER, 2000 (pt. 8) 9 p. 2 tables; 13 ref. Summary (En)

EUCALYPTUS UROPHYLLA; MYCORRHIZAE; INOCULATION; SPORES; GROWTH RATE; SUPERPHOSPHATE; APPLICATION RATES; DOSAGE EFFECTS; SEEDLINGS; FERTILIZER APPLICATION.

### **P35 SOIL FERTILITY / KESUBURAN TANAH**

0271 ASTRO, H.M. [Evaluation on N, P and K nutrients its relation with traditional cropping system of Sumbawa-NTB (Indonesia) people]. Evaluasi hara N, P dan K -hubungannya dengan pola tanam tradisional masyarakat Sumbawa-NTB/Astro, H.M. (Balai Penelitian Teknologi Tepat Guna BPTTG-LIPI, Subang (Indonesia). Unit Pelaksana Teknik). Widyariset (Indonesia) ISSN 1411-7932 (2001) v. 3 p. 149-158 4 ill., 8 ref. Summaries (En, In)

PLANT PRODUCTION; NUTRIENTS; CROPPING SYSTEMS; NITROGEN FERTILIZERS; PHOSPHORUS; POTASSIUM.

### **P36 SOIL EROSION, CONSERVATION AND RECLAMATION / EROSI, PELESTARIAN DAN PERBAIKAN TANAH**

0272 SUWARTO. [Soil conservation for highland vegetable development]. Konservasi tanah untuk pengembangan sayuran dataran tinggi/Suwarto. Warta Penelitian dan Pengembangan Pertanian (Indonesia) ISSN 0216-4427 (2001) v. 23(5) p. 9-11 1 ill., 1 table

VEGETABLE CROPS; HIGHLANDS; SOIL CONSERVATION; CULTIVATION; EROSION CONTROL.

### **P40 METEOROLOGY AND CLIMATOLOGY / CUACA DAN IKLIM**

0273 NOORDWIJK, M.V. Belowground biodiversity and sustainability of complex agroecosystems/Noordwijk, M.V. (International Centre for Research in Agroforestry (ICRAF) South East Asia, Bogor (Indonesia)); Swift, M.J. Proceedings of Workshop Management of Agrobiodiversity in Indonesia for Sustainable Land Use and Global Environmental Benefits/Gafur, A.; Susilo, F.X.; Utomo, M.; Noordwijk, M.V. (eds.) Badan Penelitian dan Pengembangan Pertanian, Jakarta (Indonesia); Universitas Lampung, Bandar Lampung (Indonesia). Jakarta (Indonesia): AARD, 1999 p. 8-25 7 ill., 5 tables; 46 ref.

AGROECOSYSTEMS; BIODIVERSITY; SUSTAINABILITY.

0274 PAWITAN, H. [Strategy and concept of anomaly climate effect for sustainability of agricultural production system]. Strategi dan konsep penanggulangan dampak anomaly iklim untuk keberlanjutan sistem produksi pertanian/Pawitan, H.; Bey, A.; Boer, R.. [Proceeding of the National Seminar on Utilization of Soil Resources, Climate and Fertilizer, Book 1]. Prosiding Seminar Nasional Reorientasi Pendayagunaan Sumberdaya Tanah, Iklim, dan Pupuk, Buku 1/Sofyan, A.; Irianto, G.; Agus, F.; Irawan; Suryanto, W.J.; Prihatini, T.; Anda, M. (eds.) Pusat Penelitian dan Pengembangan Tanah dan Agroklimat, Bogor (Indonesia). Bogor (Indonesia): PUSLITBANGTANAK, 2001 p. 137-156 3 ill., 12 tables. Appendices

AGRICULTURAL PRODUCTS; CLIMATE; INFORMATION SYSTEMS; PRODUCTION.

### **Q01 FOOD SCIENCE AND TECHNOLOGY / ILMU-ILMU DAN TEKNOLOGI MAKANAN**

0275 HARYADI. [Flour milling technology]. Teknologi tepung/Haryadi (Universitas Gadjah Mada, Yogyakarta (Indonesia). Fakultas Teknologi Pertanian). [Proceedings of the Seminar on Food Security and Safety]. Prosiding Seminar Ketahanan Pangan/Haryadi; Supartono, W. Universitas Gadjah Mada, Yogyakarta (Indonesia). Fakultas Pertanian. Yogyakarta (Indonesia): UGM, 2001 p. 54-68 3 ill., 20 ref.

RICE; ROOT CROPS; FLOURS;  
PROCESSING; CONSUMPTION.

0276 UTAMI, I.S. [Flour based foods]. Makanan berbasis tepung/Utami, I.S. (Universitas Gadjah Mada, Yogyakarta (Indonesia). Fakultas Teknologi Pertanian). [Proceedings of the Seminar on Food Security and Safety]. Prosiding Seminar Ketahanan Pangan/Haryadi; Supartono, W. Universitas Gadjah Mada, Yogyakarta (Indonesia). Fakultas Pertanian. Yogyakarta (Indonesia): UGM, 2001 69-80 4 ill., 11 ref.

FOODS; STARCH CROPS; FLOURS;  
CARBOHYDRATES; PROCESSING.

## **Q02 FOOD PROCESSING AND PRESERVATION / PENGOLAHAN DAN PENGAWETAN MAKANAN**

0277 JULISTIONO, H. Toxicity of glycerol or sucrose during freezing and thawing of yeast *Saccharomyces cerevisiae* cell. Toksisitas gliserol atau sukrosa pada sel khamir *Saccharomyces cerevisiae* yang disimpan pada suhu rendah beku/Julistiono, H. (Balai Penelitian Pengembangan Mikrobiologi, PUSLIT BIOLOGI-LIPI, Bogor (Indonesia)). Berita Biologi (Indonesia) ISSN 0126-1754 (2001) v. 5(4) p. 387-394 19 ref. Summary (En). Appendices

SACCHAROMYCES CEREVISIAE;  
YEASTS; GLYCEROL; SUCROSE; COLD  
STORAGE; DURATION; MORTALITY;  
FERMENTATION; TOXICITY.

0278 MARWAN. Chemical modification of crude palm oil by palladium catalyzed hydrogenation/Marwan (Universitas Syiah Kuala Darussalam, Banda Aceh (Indonesia)). Indonesian Journal of Agricultural Science (Japan) ISSN 1345-9635 (2001) v. 1(1) p. 5-10 5 ill., 6 ref. Summary (En)

PALM OILS; HYDROGENATION;  
ACTIVATED CARBON; CATALYSTS;  
BLEACHING; KINESIS; CHEMICO-  
PHYSICAL PROPERTIES.

0279 SIREGAR, E. [Effect of mixed strain utilization on amino acid in tempe]. Pengaruh penggunaan strain campuran terhadap asam amino dalam tempe/Siregar, E.; Hendritomo,

H.I.; Djamil (Direktorat Teknologi Bio-industri, Jakarta (Indonesia)). Jurnal Sains dan Teknologi Indonesia (Indonesia). Edisi Khusus ISSN 1410-9409 (2001) v. 3(5) p. 9-14 2 ill., 2 tables. Summary (En)

SOYFOODS; MIXING; AMINO ACIDS;  
FERMENTATION; FOOD TECHNOLOGY.

0280 SUHARJO. [Assessment of food crops processing technology in rural areas]. Pengkajian teknologi pengolahan hasil tanaman pangan di pedesaan/Suharjo; Yuniarti; Suhardi, SR.; Soenarsono; Istuti, W.; Jumadi; Bonimin. Balai Pengkajian Teknologi Pertanian, Malang (Indonesia). Malang (Indonesia): BPTP, 2001. 15 p

FOOD CROPS; PROCESSING; SOY-  
FOODS; TAPIOCA; ORGANOLEPTIC  
PROPERTIES; RURAL AREAS

0281 UTAMA, J.S. [Utilization of sweet potato instant flour for breadwhite processing] Tepung instan ubi jalar untuk pembuatan roti tawar/Utama, J.S.; Antarlina, S.S. (Balai Penelitian Kacang-kacangan dan Umbi-umbian, Malang (Indonesia). Pangan: Media Komunikasi dan Informasi (Indonesia) (2002). V. 9(38) p. 54-60. 6 tables; 10 ref.

SWEET POTATOES; FLOURS; BREADS;  
CHEMICO-PHYSICAL PROPERTIES;  
ORGANOLEPTIC PROPERTIES;  
CHEMICAL COMPOSITION.

## **Q03 FOOD CONTAMINATION AND TOXICOLOGY / KONTAMINASI DAN TOKSIKOLOGI PANGAN**

0282 SUNARDI. [Bacterial contamination on food]. Pencemaran pangan oleh bakteri: potensi bahaya dan pencegahannya/Sunardi (Institut Pertanian STIPER, Yogyakarta (Indonesia). Fakultas Teknologi Pertanian). [Compilation of Paper Presented at the Eight-Thirteenth Monthly Seminar in STIPER Agricultural Institute (January-November 2000)]. Kumpulan Makalah Seminar Bulanan Periode VIII-XIII (Januari s.d. November 2000)/Institut Pertanian STIPER, Yogyakarta (Indonesia) Yogyakarta (Indonesia): STIPER, 2000 (pt. 12) 9 p. 2 ill., 5 tables; 5 ref.

FOODS; BIOLOGICAL CONTAMINA-  
TION; FOODBORNE DISEASES;  
STAPHYLOCOCCUS AUREUS;

CLOSTRIDIUM PERFRINGENS;  
BACILLUS CEREUS; SALMONELLA;  
FOOD INSPECTION; FOOD SAFETY.

0283 SUTONO, S. [Quality of rice].  
Amankah beras yang kita makan/Sutono, S.  
(Pusat Penelitian dan Pengembangan Tanah  
dan Agroklimat, Bogor (Indonesia)). *Warta  
Penelitian dan Pengembangan Pertanian  
(Indonesia)* ISSN 0216-4427 (2002) v. 24(1)  
p. 18-19 1 ill., 1 table

RICE; SOIL TOXICITY; SOIL  
POLLUTION.

#### Q04 FOOD COMPOSITION / KOMPO- SISI MAKANAN

0284 PARTHA, I.B.B. [Functional foods:  
its formulation and prospect] Pangan  
fungsional: formulasi dan prospeknya/Partha,  
I.B.B. (Institut Pertanian STIPER, Yogyakarta  
(Indonesia). Fakultas Teknologi Pertanian).  
[Compilation of Paper Presented at the Eight-  
Thirteenth Monthly Seminar in STIPER Agri-  
cultural Institute (January-November 2000)].  
Kumpulan Makalah Seminar Bulanan Periode  
VIII-XIII (Januari s.d. November 2000)/  
Institut Pertanian STIPER, Yogyakarta (Indo-  
nesia). Yogyakarta (Indonesia): STIPER, 2000  
(pt. 4) 9 p. 3 tables; 12 ref. Summary (In)

HEALTH FOODS; NUTRITION  
PHYSIOLOGY; ORGANOLEPTIC  
PROPERTIES; INGREDIENTS; THERA-  
PEUTIC DIETS; PHYSIOLOGICAL  
FUNCTIONS.

0285 RAHAYU, W.P. [Activity and  
production of anti microbe components from  
the rhizomes of *Alpinia galanga* (L.) Swartz].  
Kajian aktivitas dan produksi komponen  
antimikroba dari rimpang langkuas (*Alpinia  
galanga*)/Rahayu, W.P. Institut Pertanian  
Bogor (Indonesia). Fakultas Teknologi  
Pertanian. Bogor (Indonesia): IPB, 2000 82 p.  
38 ill., 15 tables; 67 ref.

ALPINIA GALANGA; VARIETIES;  
EXTRACTS; ANTIMICROBIAL-  
PROPERTIES; PRESERVATIVES;  
VOLATILE COMPOUNDS.

0286 SOFIA, D. [Quality of sugar for food,  
beverage, and pharmacy industries: market  
demand anticipation]. Tuntutan kualitas gula

untuk industri makanan, minuman, dan  
farmasi: antisipasi permintaan pasar/Sofia, D.  
(Pusat Penelitian Perkebunan Gula Indonesia,  
Pasuruan (Indonesia)). [Technical Meeting on  
Productivity and High Efficiency to Increase  
Competitive Ability of Indonesian Sugar  
Industry]. Pertemuan Teknis P3GI:  
Produktivitas dan Efisiensi Tinggi untuk  
Meningkatkan Daya Saing Industri Gula  
Indonesia/Pusat Penelitian Perkebunan Gula  
Indonesia, Pasuruan (Indonesia). Pasuruan  
(Indonesia): P3GI, 2000 (pt. 2) 4 p. 4 tables; 3  
ref.

CANE SUGAR; QUALITY; SUGAR  
INDUSTRY; FOOD INDUSTRY;  
BEVERAGE INDUSTRY; QUALITY  
CONTROL; PHARMACEUTICAL  
INDUSTRY; MARKET SEGMENTATION.

#### Q51 FEED TECHNOLOGY / TEKNO- LOGI PAKAN

0287 MIRZAH. [Use of shrimp waste meal  
products by processing with steam pressure on  
the performance of broiler chicken].  
Pemakaian tepung limbah udang hasil olahan  
dengan tekanan uap terhadap performan ayam  
broiler/Mirzah (Universitas Andalas, Padang  
(Indonesia). Fakultas Peternakan). *Jurnal  
Peternakan dan Lingkungan (Indonesia)* ISSN  
0852-4092 (1998) v. 6(03) p. 16-25 4 tables;  
31 ref. Summary (En)

BROILER CHICKENS; RATIONS;  
PRAWNS AND SHRIMPS; FISH MEAL;  
PROCESSED ANIMAL PRODUCTS;  
PROTEIN QUALITY; FEED  
CONSUMPTION; PROXIMATE  
COMPOSITION.

#### Q54 FEED COMPOSITION / KOMPO- SISI PAKAN

0288 ASKAR, S. [Modification of calcium  
analysis method using chloranilat acid on  
feeds]. Modifikasi metode analisis kalsium  
dengan larutan asam kloranilat dalam bahan  
pakan/Askar, S. (Pusat Penelitian dan  
Pengembangan Ternak, Bogor (Indonesia)).  
*Buletin Teknik Pertanian (Indonesia)* ISSN  
0853-8379 (2001) v. 6(2) p. 50-54 3 ill., 3  
tables; 5 ref.

FEEDS; SETARIA SPHACELATA;  
SESBANIA GRANDIFLORA; CALCIUM;  
CHEMICAL COMPOSITION; COLORI-  
METRY; TEMPERATURE; SEDIMENT.

**Q60 PROCESSING OF NON-FOOD OR NON-FEED AGRICULTURAL PRODUCTS / PENGOLAHAN HASIL PERTANIAN NON-PANGAN DAN NON-PAKAN**

0289 ELISABETH, J. [Palm oil biodiesel: alternative environmental friendly fuels]. Biodiesel sawit: bahan bakar alternatif ramah lingkungan/Elisabeth, J.; Haryati, T. (Pusat Penelitian Kelapa Sawit, Medan (Indonesia)). Warta Penelitian dan Pengembangan Pertanian (Indonesia) ISSN 0216-4427 (2001) v. 23(3) p. 3-5 1 ill.

PALM OILS; DIESEL OIL; PROCESSING; PRODUCTION COSTS; USES.

0290 SETYOWATI, K. . [Production of castor oil as raw material of lubricate and plastic industry and Tung oil substitution]. Produksi minyak jarak (*Ricinus communis* L.) sebagai bahan baku industri pelumas dan plastik serta substitusi Tung oil/Setyowati, K. Institut Pertanian Bogor (Indonesia). Bogor (Indonesia): IPB, 2000 103 p. 7 ill., 7 tables; 27 ref.

RICINUS COMMUNIS; CASTOR OIL; DRYING; SEED EXTRACTS; RAW MATERIALS; PLASTICS; TUNG OIL; FATTY ACIDS; CHEMICOPHYSICAL PROPERTIES.

0291 ULFAH, M. [Isolation and identification of fungi on Ribbed Smoked Sheet (RSS) after smoking]. Isolasi dan identifikasi jamur pada Ribbed Smoked Sheet (RSS) setelah pengasapan/Ulfah, M. (Institut Pertanian STIPER, Yogyakarta (Indonesia). Fakultas Teknologi Pertanian). [Compilation of Paper Presented at the Eight-Thirteenth monthly Seminar in STIPER Agricultural Institute (January-November 2000)]. Kumpulan Makalah Seminar Bulanan Periode VIII-XIII (Januari s.d. November 2000)/ Institut Pertanian STIPER, Yogyakarta (Indonesia). Yogyakarta (Indonesia): STIPER, 2000 (pt. 7) 10 p. 9 ill., 8 ref. Summary (In)

LATEX; SMOKING; DRYING; PURIFICATION; PRESERVATION; IDENTIFICATION; ASPERGILLUS; PENICILLIUM; PAECILOMYCES; CLADOSPORIUM; CURVULARIA; EUROTIIUM.

**Q70 PROCESSING OF AGRICULTURAL WASTES / PENGOLAHAN LIMBAH PERTANIAN**

0292 HERNANI. [Isolation of cardanol from CNSL (Cashew Nut-Shell Liquid) using column chromatography]. Isolasi kardanol dari CNSL (Cashew Nut-Shell Liquid) secara Kromatografi kolom/Hernani (Balai Penelitian Tanaman Rempah dan Obat, Bogor (Indonesia)). Warta Penelitian dan Pengembangan Tanaman Industri (Indonesia) ISSN 0853-8204 (2001) v. 7(4) p. 10-12 3 ill., 2 tables

CASHEWS; SHELL; PHENOLIC COMPOUNDS; ANALYTICAL METHODS; COLUMN CHROMATOGRAPHY.

0293 RIDLO, R. [Utilization of empty palm bunches in combination with coal as fuel combusted by using Circulating Fluidized – Bed technology in East Kalimantan (Indonesia)]. Pembakaran limbah tandan kosong kelapa sawit dan batubara menggunakan Circulating Fluidized Bed (CFB) di Kalimantan Timur/Ridlo, R. (Pusat Pengkajian dan Penerapan Teknologi Pengembangan Sumberdaya Energi, Jakarta (Indonesia)). Jurnal Sains dan Teknologi Indonesia (Indonesia). Edisi Khusus ISSN 1410-9409 (2001) v. 3(5) p. 17-19 3 ill., 2 tables; 10 ref. Summary (En)

OIL PALMS; BIOMASS; RESIDUES; COAL; WASTE MANAGEMENT; AGRICULTURAL WASTES; KALIMANTAN.

**Q80 PACKAGING / PENGEPAKAN PRODUK INDUSTRI HASIL PERTANIAN, PETERNAKAN, PERIKANAN DAN KEHUTANAN**

0294 PUSAT PENELITIAN KELAPA SAWIT. [Palmega-R015 palm oil, arich source of Omega-3]. Palmega-R015 minyak sawit kaya Omega-3/Pusat Penelitian Kelapa Sawit, Medan (Indonesia)). Warta Penelitian dan Pengembangan Pertanian (Indonesia) ISSN 0216-4427 (2002) v. 24(1) p. 12-13 1 ill.

OIL PALMS; EICOSAPENTAENOIC ACID; DOCOSAHEXAENOIC ACID.

**S01 HUMAN NUTRITION - GENERAL ASPECTS / ILMU GIZI - ASPEK UMUM**

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**U40 SURVEYING METHODS // METODE SURVEI**

0299 LESTARI, S. [Utilization of rain and cloud remote sensing technology in weather modification activities in Indonesia]. Pemanfaatn teknologi indera jauh hujan dan awan dalam kegiatan modifikasi cuaca di Indonesia/Lestari, S. (Unit Pelaksanaan Teknis Hujan Buatan, Jakarta (Indonesia)). Jurnal Sains dan Teknologi Indonesia (Indonesia). Edisi Khusus ISSN 1410-9409 (2001) v. 3(5) p. 82-87. 3 ill., 6 ref. Summary (En)

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RICE FIELDS; IDENTIFICATION; REMOTE SENSING; CARTOGRAPHY; LAND USE

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