XXIX CONGRESS PAPERS AND POSTERS

Plenary papers
Balieiro, de Witte, Weerathaworn - Using production-cost analysis to understand the competitiveness of sugarcane production: a comparison among Thailand, Vietnam, South Africa and Brazil
Botha - Sugarcane R,D&E: over managed and underperforming?
Chudasama - Dynamics of the global sugar industry: an overview
Dubreuq, Rungiang, Sriroth, Fulcrand - Plant phenolics in the sugarcane biorefinery
Monthienvichienchai - Mitr Phol Group’s increasing international experience
Poggio, Renouf, Schroeder - Balancing profitability and environmental considerations in best practice cane growing
Qi - Big data science for small farmers: improving resilience to climate change
van Antwerpen, Ng Cheong, Miles, Gilbert - Strategies for cane production in marginal environments and under more environmental scrutiny

Agricultural Engineering papers
Erazo; Muñoz, Arévalo - Evaluating a fixed-rate fertilization system in sugarcane
Jensen, Gobbett, Bramley, Garmendia - A methodology to assess the accuracy and reliability of yield-monitor data
Khawprateep, Jensen, Schroeder, Eberhard - Influence of yield and other cane characteristics on cane loss and product quality
Lecler - Projects and strategies to introduce a synergetic controlled-traffic farming system to Zimbabwe
Merry - Exploring the economic limits of pumping for sugarcane irrigation
Norris, Basson, Tempel - Assessment of the yield and sugar recovery from green-cane chopper-harvesting and burned-cane hand-cutting for a South African operation
Norris, Norris - Modelling the sugarcane value chain: an interactive decision-support tool
Thungsotanon, Usaborisut, Kuson, Kulketwong, Abdullakasim - Measuring the impact of tractor trailers on soil compaction for typical sugarcane-haulage operations in Thailand
Usaborisut, Oonkong, Srisukajorn, Sukcharoenvipharat, Nunnoy - Performance and efficiency tests of an auto-trip subsoiler with different shank shapes
Whiteing, Giddy, Norris - A cane-loss measuring system for machine-harvested sugarcane

Agricultural Engineering posters
Bastidas-Obando, Jarmain, Bastiaanssen, Voogt - Measuring the effect of water stress for yield in irrigated sugarcane with a satellite-based system
Choedkiatphon, Usaborisut, Niyamapa, Bamrungwang - Preliminary performance test of cane-residue incorporator using a powered disc tiller
Erazo, García, Herrera - Design and implementation of a real-time kinematic network for the sugarcane industry in Colombia
Erazo, Ospina, Camacho - Effect of traffic-control strategies for harvesting sugarcane
Ng Cheong, Teeluck - Development of an irrigation-scheduling software for sugarcane
Nuñez, Palomeque - Sugarcane performance under different row configurations designed to accommodate in-field traffic
Rahmawan, Wibisono, Rosiawan, Desyosop - Modification of ripener applicators for use by small-scale growers
Sanches, Magalhães, Franco - Using electromagnetic induction and kriging techniques to develop soil maps with few samples
Shinde - Performance of a mechanical sugarcane planter developed for Indian conditions

Agronomy papers
Auzoux, Martine, Poser, Marnotte, Goebel - ECOFI: a new generic database to analyse complex agroecological experimentation
Castro, Franco, Sanches, Kolln, Magalhães - The best time to apply N-fertilizer in sugarcane ratoons in the Centre South of Brazil
González, Ferrer, Jiménez, Casanova - Improving the efficiency of the estimation of agricultural and factory yields in Cuba
Juntahum, Boonlue - Efficiency of arbuscular mycorrhiza fungal inoculation with rock phosphate on soil-available phosphorus, and drought stress, growth and yield of sugarcane under field conditions
Kamiya, Yatabe, Ando, Ponragdee, Ito, Terajima, Sugimoto - Features of sugarcane yield components of the low-yielding area in northeast Thailand
Karmollachaaab, Bakshandeh, Moradi Telavat, Moradi, Shomeili - Sugarcane yield and ripening response to chemical ripeners
Li, Yang, Tan, Wang, Yang, Song - Exploitation and application of improved farming-systems technologies in sugarcane production in China
Martiné, Poser, Roussel, Gérardeaux, Chopart - Modelling energy cane growth in contrasting environments: calibration and validation
Mkhalihiphi, Dlamini - Increasing sugarcane yields and decreasing inputs for smallholder growers through improvements in irrigation scheduling in Swaziland
Muñoz, Villegas, Moreno, Posada - Use of cowpea (Vigna unguiculata) as a green manure and its effect on nitrogen (N) requirement and productivity of sugarcane
Ramburan, Tweddle, van Heerden, Ramouthar, Miles - A tool for converting conventional sugarcane trial results into economic terms
Ramos, Alves Vidal, Ramos, Rossetto, de Lima Nechet - Carbon dioxide enrichment effects on the decomposition of sugarcane residues
Roa, Cadavid, Muñoz, Chica, Angel - Isolation and preliminary biochemical characterization of nitrogen-fixing bacteria belonging to three genera obtained from sugarcane in Colombia
Sandhu, Singh, McCray - Use of apparent soil electrical conductivity to improve sugarcane nutrient management in Florida
Seechan, Chimnarong, Veerachat, Jiraphattharasiri, Rethinum, Pliansinchai - Historical ENSO-related impacts on sugarcane yields in northeastern Thailand

Singh, Vivek, Jain, Pastore - Climate-smart agriculture: catalyzing behavior change in sugarcane farmers for water-use efficiency

Takaragawa, Watanabe, Thanankorn, Nakabaru, Kawamitsu - Crop diversity in sugarcane: effect of mixed cultivars on the growth and yield of sugarcane

Thongponkaew, Chittamart, Tawornpruek, Pinjai - Screening of phosphate-solubilizing bacteria from sugarcane rhizospheric soil and their abilities to improve growth and yield of sugarcane

Agronomy posters

Astanto, Supriyadi, Darma, Andriadhi - Cost of weed control - delayed harvesting after ripening and during the dry season on a tropical sugarcane plantation in Indonesia

Chapanya, Nootas, Ngasan, Muangmontri, Ngamonsai, Rachdawong, Pliansinchai - NIR technique for rapid determination of soil chemical properties in northeastern Thailand

Chopart - Two high-fibre sugarcane varieties adapted for energy use in Guadeloupe

Darunsontaya, Jindaluang, Ketrot, Kheoruenromne, Suddhiprakarn - Chemical profiles of sugarcane-growing soils under a moist tropical savanna climate in Thailand

Haryani, Irfansah, Abdurrahim, Kusuma - Growth and yield of sugarcane with drip irrigation in an Ultisol in Indonesia

Jindaluang, Darunsontaya, Ketrot, Kheoruenromne, Suddhiprakarn - Effect of deep ploughing on accumulation of organic carbon in soils under sugarcane-cropping practices

Khandagave - Crop geometry compared with intercropping in sugarcane: an option to increase the income of farmers

Luanmanee, Paisancharoen, Kongtien - Optimum soil and nutrient management for increasing sugarcane productivity on sandy soils in northeast Thailand

Mansuy, Marion, Labrunie - Cover crops associated with sugarcane to control weeds

Niamsanit, Milintawisamai, Krumkhutot, Jaisil - Assessment of Enterobacter oryzae 3LSO1 and Stenotrophomonas maltophilia 5LSO2 for promoting sugarcane growth in the field

Nootas, Ngasan, Pliansinchai, Rittiron, Surareungchai, Cheunkar - Portable near-infrared (NIR) spectrophotometers for the measurement of sucrose content in cane in the field

Okada, Ueno, Taira, Watanabe, Kawamitsu - Effects of low temperature and frost damage in winter on sugarcane yield and quality in Japan

Paillat, Davrieux, Thuriès, Moussard, Azami, Marion - Sugarcane foliar diagnosis with near-infrared spectroscopy: determination of nitrogen and carbon contents

Palomeque, Núñez - Evaluation of two rotation management strategies on sugarcane production

Pinna-Cabrejos, Valdivia-Salazar, Valdivia-Vega - Nitrogen fertilization and harvesting age effect on sugarcane thresholds for soil salinity

Pushpavalli, Balaji, Prakash - Optimization of organic K application (Kash) to sugarcane in comparison with chemical K fertilizer
Rossetto, da Silva, Vitti, Piemonte, Dias, Cantarella - Concentrated vinasse applied to ratoon sugarcane: yield and soil fertility

Shinde - Sugarcane nutrition through drip irrigation

Sitepu, Suryadarma, Gunito - Selection of a new effective post-emergence mix of herbicides as an alternative to a standard mixture used in Indonesia

Solomon, Jain, Chaab, Hamdi, Vanden Berghe - Improvement of the sucrose content of early harvested sugarcane using stabilised orthosilicic acid

Suwanno, Thaymuang, Phankamolsil, Sudhiprakarn - Effect on zinc management on yield and quality of sugarcane

Tauvoli, Naidu - Routine soil analysis for determining lime requirement: lime buffering capacity as an alternative method

Veerachitt, Rethinum, Pliansinchai - Monitoring sugarcane growth using high resolution imagery from a UAV

Watanabe, Takaragawa, Nakabar, Taira, Ueno, Kawamitsu - Effects of different kinds of K+ and Cl- salts on sugarcane growth, quality and ion composition

Watanarojanaporn, Chantawong, Tipart, Rachadawong, Pliansinchai - Isolation of plant-growth-promoting bacteria and their effect on sugarcane plantlet growth

Breeding papers

Afghan, Shahzad, Afzal, Iqbal, Shahzad, Wijesuriya - Sugarcane improvement in Pakistan through traditional and modern breeding technologies

Basnayake, Lakshmanan, Jackson, Chapman, Natarajan - Canopy temperature: a predictor of sugarcane yield for irrigated and rainfed conditions

Gazaffi, Cursi, Chapola; Santos, Fernandes, Carneiro, Barbosa, Hoffmann - RB varieties: a major contribution to the sugarcane industry in Brazil

Gravois, Zhou, Hoffmann, Piperidis, Badaloo - Breeding new sugarcane varieties with enhanced ratooning ability

Huang, Shang, Xu, Wang, Chen, Zhang - Quantitative evaluation of variation in defoliation traits among sugarcane genotypes

Jackson - What is the optimal selection intensity of seedlings (stage 1) in sugarcane breeding programs?

Klomsa-ard, Patanothai, Pliansinchai - Selection criteria for sugarcane genotypes in two production systems in Thailand

Koonjah, Badaloo, Mangar, Beekharry, Dookun-Saumtally - A new and reliable criterion for the identification of early ripening, high-sucrose parent varieties

Rajeswari, Bharathi, Rao - Use of ‘Big Mill’ tests in evaluating and promoting new varieties: case example of a Parry India variety

Rao, Rajeswari, Varatharaj, Lourdusamy - Farmer Acceptance Selection - a participatory approach to selection and technology transfer for new sugarcane varieties
Santchurn, Badaloo, Zhou, Labuschagne - Genotype-by-environment interaction, adaptability and stability of biomass sugarcane varieties in Mauritius
Wei, Jackson - Addressing slow rates of long-term genetic gain in sugarcane
Yang, Jackson, Chen, Wei, Wu, Fan - Economic weightings of traits for variety selection in China and the impact of increased mechanisation on selection of varieties

Breeding posters
Guinet-Brial, Bousquet, Darroussat, Fernandez, Daugrois - Visacane, an overview of the distribution of disease-free sugarcane varieties for the last 10 years
Hattori, Tarumoto, Sakaigaichi, Tanaka, Hayano, Irie - Morphological and physical studies on varietal differences in resistance to wind-caused cane-top breakage in the active growth stage
Heliyanto, Djumali, Sugiyarta - Status of the development of high-yielding sugarcane varieties for rainfed areas in Indonesia
Huang, He, Li, Pan, He, Luo, Qin - Evaluating sugarcane varieties in Guangxi, China
Kuangpatee, Songsri, Jaisil, Jongrungklang - Physiological traits and their contributions to growth in sugarcane clones under drought conditions in northeastern Thailand
Rae, Pierre, Olsen, Perroux - Approaches to analysis of root-system traits in sugarcane
Rajeswari, Raghuraman, Bharathi, Rao - Screening of parental clones for red rot resistance in India
Rodriguez, Puchades, Abiche, Rill, García - SASEL: software for data management generated in the Cuban sugarcane breeding program
Roussel - Evaluation of sugarcane using the direct hydraulic press method
Singh, Gawander, Prasad - Variation among families and expansion of genetic resources in the Fiji sugarcane breeding program
Singh, Singh, Sharma - Variation in sugar content between early and mid-late maturing sugarcane varieties across the crushing period in sub-tropical India
Songsri, Jonglangklang - Participatory selection of elite sugarcane clones in the Northeast of Thailand
Suhanto, Fathir, Zulhindra, Gunito - Performance of potential cultivars at different planting times in Central Lampung, Indonesia
Tahchai, Napa, Jetsada, Prasert, Adul, Sarawut, Tanapon - Evaluation of interspecific hybrids between sugarcane cultivars and Saccharum spontaneum for tolerance to water stress
Thong-Chane, Sinama, Boisbineuf, Barau - Are elite sugarcane varieties also good parents in their zone of adaptation?
Tonsomros, Pliansinchari, He - Adaptability of Thai sugarcane varieties in China
Vidal Guerra, Pérez Oramas, Cabrera Miranda, Chinea Martín, Campo Zabala, Gómez - Status and handling of genetic resources of sugarcane in Cuba
Wang, Tang, Tan, Li, Huang, He - GT44 - a productive variety for Guangxi province, China
Zhou, Yang, Wang, Liang, Tang, Xian, Tan, Deng - Heritability analysis of agronomic traits in sugarcane families
**Entomology papers**

Amirieh, Mohammadi, Pakrou - Nitrogen and silicon impacts on the intensity of stem borer damage in sugarcane in Iran

Atencio, Goebel, Pérez Milián, Rodríguez, Fernández - Yield loss in sugarcane due to Diatraea tabernella Dyar (Lepidoptera: Crambidae) in Panama

Hanboonsong, Wangkeeree, Kobori - Integrated management of the vectors of sugarcane white leaf disease in Thailand: an update

Jatmika, Saeroji - Aulacaspis tegalensis (Zehntner) (Hemiptera: Diaspididae) infestations and management in Indonesia

Kernasa, Uraichuen, Kamata - Dorysthenes buqueti (Guérin-Méneville) (Coleoptera: Cerambycidae) in Thailand: distribution and control with Metarthizium anisopliae

Maneerat, Uraichuen, Suasa-ard - Economic impact of Cotesia flavipes (Cameron) (Hymenoptera: Braconidae) for controlling sugarcane moth borers in Thailand

Martin, Goebel - DECIPESTS, a decision-support system for pest management in sugarcane

Mouret, Martin, Roux, Goebel - Multi-scale evaluation of the impacts of using Beauveria sp. (Ascomycota: Hypocreales) to control the white grub Hoplochelus marginalis (Fairmaire) (Coleoptera: Scarabaeidae) in sugarcane – a retrospective review in Réunion

Prasad, Sallam, Rounds, Gawander - Population dynamics and damage levels of Rhabdospherus obscurus (Coleoptera: Curculionidae) in Fiji

Salvatore, Isas, del Pilar Pérez, Sosa, Alonso, Romero, Willink, Gastaminya - Incidence of Diatraea saccharalis attack on irrigated and nitrogen-fertilized sugarcane in Tucumán, Argentina

Soti, Tran, Goebel - Potential of remote-sensing images to study the effect of natural vegetation on the spatial distribution of greyback canegrub, Dermolepida albohirtum, in Australia

Vega, Rojas, Regal - Geostatistical tools for the assessment of the incidence of Diatraea saccharalis in sugarcane in Cuba

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**Entomology posters**

Hu, Guan, Xu, Li, Mao, Mao - Development and application of a sprayable slow-release formulation of the sex pheromone of the sugarcane borer Chilo venosatus Walker (Lepidoptera: Crambidae)

Jarnkoon, Tintarasaranaratchaseema, Pliansinchai, Rana, Moonrinta, Neelsawat, Dailey - Diagnosing sugarcane insect pests and diseases using mobile applications

Naidu, Prakash, Padayachi - Management of an isopteran pest, Coptotermes gestroi, in the Fiji sugar industry

Nikpay, Goebel - Major sugarcane pests and their management in Iran

Pan, Huang, Wei, Shang, Lin, Xin - Distribution and natural parasitism rate of egg parasitoids of sugarcane borers in China

Pan, Huang, Xin, Wei, Shang, Lin - Occurrence of Habrobracon hebetor (Braconidae) in the rearing room of Corecyra cephalonica used for Trichogramma production in China
Qin, Wei, Song, Luo, Liu, Deng - Efficacy of the ladybird beetle *Cryptolaemus montrouzieri* Mulsant for control of *Saccharicoccus sacchari* (Cockerell)

Rao, Sankar - Management of sugarcane root grub, *Holotrichia serrata* (Fabricius), with an entomopathogenic nematode, *Heterorhabditis indica*, in sugarcane areas of Karnataka, India

Rao, Sankar - Successful use of the biocontrol agents *Trichogramma chilonis* and *Tetrastichus howardi* in sugarcane in India

Rodríguez, Fuentes, Loddo, Rodríguez, Álvarez, Jiménez - Impact of the biological control program in sugarcane pest management in Cuba

Salvatore, Isas, Del Pilar Pérez, Romero, Zossi, Sorol, Willink, Gastaminza - Sugarcane deterioration caused by *Diatraea saccharalis* (Crambidae) in Tucumán, Argentina

Shang, Huang, Wei, Pan, Lin, Qin - Damage by and occurrence of *Exolontha castanea* Chang (Coleoptera: Melolonthidae) in sugarcane in Guangxi, China

Tintarasaranaratchaseema, Jarnkoon, Kodsope, Swangmaneecharern, Pliansinchai - *Metarhizium anisopliae* for controlling termites in sugarcane

Wangkeeeree, Hanboonsong - Bacterial symbionts in a leafhopper vector of sugarcane white leaf and their potential use as biocontrol agents

Wei, Huang, Pan, Shang, Wang, Qin - Infestations by *Scirrophaga excepitalis* (Walker) (Lepidoptera: Pyralidae) in sugarcane in Guangxi, China

Pathology papers

Ángel, Victoria, Cadavid, Ángel - The race is on: review, advances and challenges for integrated and sustainable management of sugarcane brown rust and orange rust in Colombia

Bhuliyam, Croft, Stirling, Jackson, Piperidis, Aitken - Resistance of *Saccharum spontaneum* and its backcross progenies to root-knot and root-lesion nematodes

Braithwaite, Ngo, Croft, Magarey, Young - Progress in understanding and managing chlorotic streak of sugarcane

Hoarau, Roques, Efile, Adjano-Lubin, Debibakas, Daugrois - Narrow-sense heritability estimates of resistance of sugarcane to *Sugarcane yellow leaf virus*

Hoy, Baisakh, Avellaneda, Kimbeng, Hale - Detection, breeding and selection of durable resistance to brown rust in sugarcane

Joomun, Dookun-Saumtally - Importance of using highly specific and sensitive diagnostics for *Sugarcane yellow leaf virus* in quarantine

Mollov, Malapi-Wight - Next Generation Sequencing: a useful tool for detection of sugarcane viruses in quarantine programs

Puchades, La O Hechavarría, Carvajal, Montalván, Rodríguez, Rodríguez, Rodríguez - Multi-environment trials for evaluating resistance to *Sugarcane mosaic virus*

Putra, Damayanti - Effect of nitrogen and potassium fertilizers, and soil water content on incidence and severity of *Sugarcane streak mosaic virus* (SCSMV) infecting sugarcane
Rott, Kaye, Naranjo, Shine, Sood, Comstok, Raid - Controlling sugarcane diseases in Florida: a challenge in constant evolution

Sood, Glyn, Yang, Wang, McCorkle, Rott, Comstock - Inheritance of resistance to orange rust in sugarcane

Thompson, Wilson, Magarey, Putra, Hidayat - Development of diagnostic tests for Sugarcane streak mosaic virus

Viswanathan, Sathyabhama, Malathi, Sundar - Transcriptome analysis of host-pathogen interaction between sugarcane and Colletotrichum falcatus by suppression subtractive hybridization and illumina sequencing

Pathology posters

Aday Diaz, La O Hechavarría, Puchades Izaguirre, Zardón Navarro, Bertani, Mesa López, Rodríguez Lema - Genotyping of Sugarcane yellow leaf virus in commercial cultivars and the Cuban germ plasm collection

Bao, Sun, Li, Duan, Chen, Zhang - Identification and characterization of Fusarium oxysporum gx3 causing sugarcane pokkah boeng in China

Brindha, Viswanathan - Ab initio prediction of micro-RNA like structures in sugarcane viruses and their cellular targets

Klinkong, Patarapuwadol, Reanwarakorn - Development of loop-mediated isothermal amplification (LAMP) assays for rapid detection of sugarcane white leaf phytoplasma

Lin, Wang, Zhou, Li, Shang, Wei, Pan, Huang - Fusarium species associated with sugarcane pokkah boeng in China

Molina, Ovalle, Peiró, López, Gisbert - Xanthomonas albilineans and Sugarcane yellow leaf virus (SCYLV) in Guatemala: assessment of methodologies for sanitation of infected sugarcane material

Pérez, Pérez, La O, Pellón - Sugarcane leaf scald: symptom expression in relation to sucrose content and pathogen population density in the juice of infected stalks

Prabakaran, Bharathi, Ganapathi, Rao - Production of virus-free seed cane through tissue culture for a three-tier nursery system in India

Prasanth, Viswanathan, Malathi, Sundar, Tiwari - Identification of candidate secretory effector proteins (CSEPS) genes from Colletotrichum falcatus and their role in host-pathogen interaction by comparative modelling

Rodríguez, Loddo, Alfonso, Rodríguez, Jiménez, Fernández, Gandarilla - Nematodes of sugarcane in Cuba

Rodríguez, Puchades, Piñón, Acevedo - Studies on sugarcane mosaic in Cuba

Tiwari, Kumar, Madupriya, Rao, Sharma - Detection of ‘Candidatus Phytoplasma oryzae’ in non-symptomatic sugarcane cultivars in eastern Uttar Pradesh, India

Wu, Alabi, Damaj, Sun, Mirkov, Fu, Chen, Gao - Prevalence and RT/RNase H genealogy of Sugarcane bacilliform virus isolates from China
Molecular Biology papers
Aitken, Farmer, Berkman, Muller, Wei, Demano, Jackson, Magwire, Dietrich, Kota - Generation of a 345K sugarcane SNP chip
Botha, Marquardt, Scalía, Watthen-Dunn - Yellow Canopy Syndrome (YCS) is associated with disruption of sucrose metabolism in the leaf
Lembke, Lee, Andrade, Margarido, Nishiyama, Ferreira, Pandya, Weissmann, Schatz, Davidson, Heckerman, Van Sluys, Souza - Exploring gene expression of the sugarcane genome in all its multiple copies: genome sequence and analysis of an energy crop
Lin, Wang, Bao, Guo, Powell, Xu, Chen, Zhang - Deciphering the transcriptomic response of *Fusarium verticillioides* in relation to nitrogen availability and the development of sugarcane pokkah boeng disease
Parmessur, Dookun-Saumtally - QTL mapping for resistance to yellow spot disease in sugarcane clone M134/75
Riascos, Salazar, Loaiza, Lopez, Espitia, Franco, Victoria - Advances in the utilization of Next Generation Sequencing data in the Colombian sugarcane breeding program
Song, Chen, Tan, Yang, Li - Molecular cloning of smut-related genes in sugarcane using suppression subtractive hybridization

Molecular Biology posters
Emam, Sadat, Khodarahmpoor, Noori - Evaluation of resistance to glyphosate in sugarcane cultivar CP48-103 by somaclonal variation via tissue culture
He, Liu, Liu, Fan, Yu, Wen - Photoautotrophic rooting of sugarcane microshoots
La O Hechavarría, Puchades Izaguirre, Zardon Navarro, Perez, Casas, Mesa - Detection of resistance-related genes in sugarcane cultivars inoculated with sugarcane mosaic virus
Liao, Yang, Wang, Huang, Yang, Li - Factors influencing and cell structure changes related to sugarcane stem tip browning in in vitro culture
Luo, Huang, Zhou, Liu, Lin, Lei, Gao, Duan, Yang, Zhang, Zhang, Li - GISH analysis of a hybrid between *Erianthus arundinaceus* and *Saccharum spontaneum*
Punpee, O’Connell, Robinson, Schmidt, Lakshmanan - Conditional up-regulation of cytokinin increases growth and development of sugarcane during water deficits
Singh, Singh, Nigam, Sharma - Development, characterization and validation of sugar gene-based SSR markers in sugarcane
Wang, Yu, Huang, Chen, Deng - Physical localization of 5S rDNA on the chromosomes of *Saccharum spontaneum* of different ploidy
Yang, Zhou, Chen - DNA methylation in different sugarcane varieties
Factory Engineering papers

Cobo, Lucuara, Ospina, Montes - Strategies for increasing availability and milling performance at Colombian mills

Davy, Kent - A classification scheme for wear and corrosion

du Toit, van der Merwe - Applications of CFD (computational fluid dynamics) modelling on boilers in the sugar industry

Geyer, Lehnberger - Today’s production requirements – how material selection and innovative design contribute to their fulfilment

Goel, Awasthi, Srivastava - Improved design of a falling-film tubular evaporator with a maintenance-friendly novel juice distributor

Joshi, Mushrif, Chavan, Goyal - Technologies for exporting electricity of 100 kWh/t of clean cane while producing white sugar: a success story

Kharbanda, Goel, Kalsi - Six-roll sugarcane mill: mathematical model, finite element analysis and its validation by strain-gauge measurement

Latifaltojar, Shomeili, Nasirpour - Possibility of increasing sugarcane juice extraction using microwaves

Lewinski, Grassmann, Fredriksson, Kallin - Trouble shooting of mill operation by analysing the torque distribution between the rollers

Lopez, Bhosale - Enhancing milling efficiency and throughput through control philosophy - San Diego experience

Loubser, Foxon, Hocking, Gibson, Mitchell - The process energy value chain

Sundaram, Nikam Ghadge - The role of the JPMA mill coupling in energy conservation

van Belzen - Improving engineering project management by using multiple business science models

Factory Engineering posters

Meyer - Ferritic stainless steel (K39 and K44) for the sugar industry and distilleries

Nugroho, Margiyono, Qomarudin, Astono - Implementation of an integrated cane-weighbridge and quality-control laboratory information system based on barcodes

Sakhardande, Kundargi - Development of a two-roller cane mill and its performance at Indian Cane Power Ltd, Karnataka, India

Verma - Cleaning boiler flue gas through bagasse drying

Factory Processing papers

Awasthi, Marwaha, Srivastava - An innovative process for producing plantation-white sugar of ultra-low \( \text{SO}_2 \) content

Brahim, Lehnberger, Mallikarjun, Nasim, Shah - Further reduction of steam demand at modern cane sugar mills

Cobo, Pereddo, Gomez, Gil - Water management in the sugar factory: balances and quality in different streams

Cobo, Rodriguez, Ospina, Gomez, Gil - Evaporation performance: present and future in Colombian sugarcane mills
Dani, Sapkal - Guidelines for water conservation and wastewater discharges from sugar mills in India
Gauche, Belotti, Pelletan - How can numerical models help decision makers and improve existing cane sugar factories?
Jensen, Davis - Direct clear juice: a summary of experiences gained in the production of clear juice in a sugarcane diffuser
Joshi, Bhave, Giramkar - Two-stage decanter operation for treatment of muddy juice
Kesarwani, Moharana - A cost-effective and more efficient continuous ion-exchange system for raw sugar melt decolorisation
Kochergin, Alvarez - Ion-exchange softening of clarified juice - results of pilot trials
Lehnerberger, Laue, Mallikarjun, Mahesh - Improved crystallisation in cane sugar mills with updated strategies and equipment
Love, Rahiman, Madho - Continuous production of seed crystals using sound-induced nucleation
Mohan, Bajpai, Singh - Sugarcane juice clarification by distillery fermenter gases
Mohan, Yadav - Recycling of pan and last-effect vapours by compressing with a mechanical vapour recompressor and use in the first effect of the evaporator set
Moor - Modern sugar factory equipment for good recoveries, energy efficiency and low costs
Morgenroth, Singh Bola - Seed-cooling crystalliser technology for improvement of crystal quality and sugar recovery
Narendranath - Ejector sulphitation of juice and syrup at a cane sugar factory
Ngasan, Thiravetyan, Suksabye, Lecchart, Simaratanamongkol, Pliansinchai - Decolorization of filtered liquor using bagasse fly ash at the pilot scale
Rackemann, Broadfoot - Evaluation of sucrose loss in evaporators for different processing configurations
Radmehr, Mazuchi - Web-based application for analyzing the operation and optimising processing in sugar mills
Rein, Getaz, Raghunandan, Du Pleissis, Saleh, D’León - Performance of lamella clarifiers for juice and syrup clarification
Sanaullah, Khan, Mogalle - Managing sugar-mill liquid effluent to zero discharge - a case study of Mehran Sugar Mills Limited
Schuermann, Timmers, Avram, Morgenroth - Sugar storage in silos
Tascon, Latorre, Rodriguez, Gil - Overview of crystallization in vacuum pans in the Colombian sugar industry
Thaval, Broadfoot, Kent, Rackemann - Determining optimum tube dimensions for Robert evaporators

Factroy Processing posters
Agarwal, Yadav - Near-zero effluent discharge from an ion-exchange regeneration process by using a brine-recovery system and fly-ash filter bed
Bryan, Wilson - Dextran determination in cane juice using the DASA system: the Jamaican experience
Chen, Katryan, McManus, LePage, Kincaid - Evaporators descaled with EDTA – a season’s experience
Grossmann, Retzmann - Scales in evaporators of cane sugar factories – economic aspects of their removal and prevention
Mazuchi, Beheshti, Pakdel - Effect of bagacillo on the colour of clarified juice
Mueangmontri, Chapanya, Nootas, Ngasan, Pliensinchai - Evaluation of a near-infrared spectrophotometer for determining molasses quality
Namonsai, Nootas, Ngasan, Sontong, Pliensinchai - Optimization of temperature and pH for improvement of efficiency in the carbonation process
Ninchan, Vanichsriratana, Sriroth - Comparison of the kinetic behavior of dextranase and pullulanase applied to massecuite A and C
Phaeon, Thajanya, Sriroth, Pliensinchai - Nanofiltration for improving efficiency of the refined sugar process
Reichling, Raineri, Richard - Case study: operation of the first Solex sugar cooler with raw sugar and with amorphous sugar
Saothong, Sriroth, Ninchan, Khotavivattana, Vanichsriratana - Applications of dextranase in Thai sugar factories
Saska, Zossi, Sastre, Ruiz - Rapid methods for starch analysis in cane juice
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