ABSTRACTS OF POSTER PRESENTATIONS

STRIP TILLAGE IN STONY SOILS

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ABSTRACT

Strip tillage is defined as the concentration on tractor power to achieve a thorough cultivation of only the soil area into which the subsequent crop is to be planted. Equipment has been developed in Barbados to achieve this in stony soils and with the trash blanket of the last cane crop retained on the surface. Because much of the land is sloping, the cultivation must be protected from erosion while waiting to be planted with cane or a rotation crop. This poster amplifies de Boer and Hudson (1987): 'Hydraulically-loaded, hi-tech tines, preceded by spring-loaded and pivoted disc coulters, are used to cut the trash and cultivate to about 30 cm depth on the first pass. The second pass replaces the disc coulter with a second tine. The two tines are offset to cultivate about 15 cm to each side of the first pass. A final pass can take several forms, including a narrow rotovator (for planting rotational crops) or a deep pass of a single tine followed by a "Dammer Dyker", which punches a line of erosion-suppressing holes. Twin-row and single-row versions have been made of this equipment. The cultivated lines have been planted both mechanically and by hand.

Key words: Strip tillage, cultivation, stony soils, sugarcane.
USE OF RADIATION AND TISSUE CULTURE TECHNIQUE TO INDUCE MUTATION IN SUGARCANE: CALLUS AND PLANTLET DEVELOPMENT AFTER VARIOUS DOSES OF GAMMA RADIATION

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ABSTRACT

Calli and plantlets of sugarcane derived from Q83 and U Thong were exposed to various doses of gamma radiation. There was a cultivar difference in the ability to resist the damaging effect of radiation. U Thong 1 was poor in both callus and plantlet development compared with Q83.

UTILISATION DES RAYONS GAMMA ET DE LA CULTURE DES TISSUS POUR L'INDUCTION DES MUTATIONS A PARTIR DES CALS ET DES PLANTULES DE LA CANNÉ À SUCRE

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RESUME

Des calis et des plantules provenant des variétés de canne à sucre Q 83 et U thong ont été exposés à différentes doses de rayons gamma. Ces deux variétés diffèrent dans leur aptitude à résister aux effets néfastes des rayons. La production des calis et la régénération des plantules étaient nettement inférieures chez la variété U thong par rapport à la variété Q 83.