

PLENE, AN ADVANCE FOR SUGARCANE PLANTING IN BRAZIL

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Plene™ concept is an evolutionary way of planting sugarcane to replace the current high cost technologies requiring heavy equipment and intensive labour. With Plene™, Syngenta developed a technique of producing sugarcane seedlings which consist of one-bud-sets treated with proprietary crop protection and coatings that allows germination, crop stand and vigour. This protocol associated with an industrial cutting and treatment technologies and a lighter planting machine provides a dramatic improvement on planting operations, reducing the amount of seedling from 18 t of stalks to 1.5 t of Plene™ per hectare. This technology simplifies the planting process and leverages the sustainable sugarcane production. This paper summarizes five field trials carried out to evaluate the performance of Plene™ sugarcane technology in São Paulo State, Brazil. Results have shown that ideal number of buds per linear meter is 8 when a 1.5 m space between rows is adopted. Application of treatment slurry just after the cutting process increased the storage time from 2 to 7 days using 70% buds germination as a reference. Emergence trials results showed the importance of the crop protection for the Plene™ technology and at 48 days after planting assessment, Plene™ plots reached 72% emergence compared to 20% in untreated plots. Plene™ harvest data presented similar results to conventional planting. As a conclusion, the combination of crop protection technologies and coatings in Plene™ is able to maintain the viability of the buds before planting and assures ideal germination, crop stand after planting, development and expected harvest, thus showing this as an excellent technology for modern sugarcane planting.

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