Sugar Cane Bagasse as Raw Material to Minimize Deforestation and the Use of Plastics

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Bagasse is the solid material by product after sugar cane trees are processed. The problem was: Is it possible to use bagasse as an economic and ecological material that is a sustainable alternative to elaborate products? The hypothesis was that sugar cane tree bagasse is an economical, and ecological material that is a sustainable alternative to elaborate different products. The bagasse was cut and washed with water before grinding it in a blender. Then it was deposited in an empty container and 237mL of sodium hydroxide was added to it. This produced a smooth and pasty substance. This substance was scattered on a plate to make paper. It was left to dry for two days. Hardness tests were made to the bagasse paper and were compared with those of computer paper. The bagasse paper resisted the hardness test up to 80 grams while computer paper only resisted 60grams. It was easy to write on bagasse paper. The substance was also used to build some planting pots. Bean seeds were planted in two of these pots and in two plastic ones. The bean seeds planted in the bagasse pots germinated before those in the plastic pots, grew higher and their leaves looked larger and healthier. It is concluded that bagasse is a sustainable material that can be used to elaborate quality paper to help reduce deforestation, and different pots to avoid using plastic ones. Therefore the hypothesis was accepted.

Awards Won: