

## **Vegetal fibres as multipurpose material**

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Cellulosic fiber have been used since time immemorial for tools and instruments, rope and packaging, clothing, bedding and housing. Environmental issues have led to renewed interest in the agro-industrial production of non-wood fiber crops for a large number of applications.

The present note describes the main vegetal fiber species cultivated and of possible introduction or reintroduction in cultivation: cotton (*Gossypium* sp.), hemp (*Cannabis sativa* L.), flax (*Linum usitatissimum* L.), *Miscanthus* sp, arundo (*Arundo donax* L.), kenaf (*Hibiscus cannabinus*), agave (*Agave sisalana*), bamboo (*Phillostachis aurea*), indicates their main areas of diffusion and cultivation and describes their agronomic, botanical and morphological traits.

In the framework of their industrial use, the paper proposes the wide range of the possible utilisations in the light of the new technologies and of the characteristics of the fibre. Therefore takes into consideration the recent fields of application which derive from the necessity to use the renewable resources for a more sustainable development.

In particular, the possible use in the fields of building material, light natural sandwich, biomedical, automotive industries, packaging, toys, furnitures, car parts, thermal and acustic insulation panels, etc. is discussed.