

# Improved method for harvesting kenaf



*UPM has invented a fibrous crop harvesting system that can keep kenaf fibres as long as possible as required by industries.*

fragments.

Dr Desa said a fibrous crop harvesting system was developed to help keep kenaf fibres to be as long as possible as required by industries.

The fibrous crop harvesting system comprises a gathering system configured to collect produce, and a cutting system located below the gathering system configured to cut the produce.

It is then characterised by the cutting system to cut thick stems with minimum energy.

Dr Desa said most of the existing kenaf harvesters deliver chopped and crushed segments of kenaf stems with the length of 3cm to 22cm that should be gathered and baled as soon as possible after harvesting.

If low density of chopped stems and increasing the transportation cost are important, or kenaf indus-

tries do not need chopped stems or need specific segment sizes, or to decorticate dead or fresh whole-stalks to separate bast and core, kenaf stems must be collected and sent whole-stalks without any storage.

This harvesting system has been designed according to the cutting tests results of kenaf stems with lower costs and more efficiency than the existing kenaf harvesting technologies.

The harvesting system has spe-

cial cutting blade design which enables it to cut thick stems with minimum energy.

The knife's blades are bevelled on both sides and can be reversed in case of damage on one side of the blades.

"This provision is advantageous as it results in better ability than the present invention ... to perform stem-cutting more than just a stem at one time, thus making the cutting process more efficient," he said.

**UPM INVENTION:** Product has been designed with lower cost and greater efficiency

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**K**ENAF is a warm season annual thick-stem fibrous crop which contains two basic components — bast fibres in the outer bark and inner core of short xylem fibres.

It has important economic potential and environmental benefits in soil remediation, toxic waste clean-up, removal of oil spills on water, and reduction of chemical and energy use for paper production.

Kenaf is also used for greater recycled paper quality, to reduce soil erosion due to wind and water, to replace or reduce use of fibreglass in industrial products, and to increase use of recycled plastics.

Activities of private industries, augmented by public-supported agricultural research, continue to

provide a diverse range of new kenaf products, indicating a bright future for the continued development of kenaf as a commercial crop.

Professor Ir Dr Desa Ahmad from Universiti Putra Malaysia (UPM) said the development in kenaf have opened a window of economic opportunities.

"Thus, there is the need to have a better method or equipment to harvest kenaf," he said, noting that most of the existing modified harvesters change the stems to small