2 March *2009*

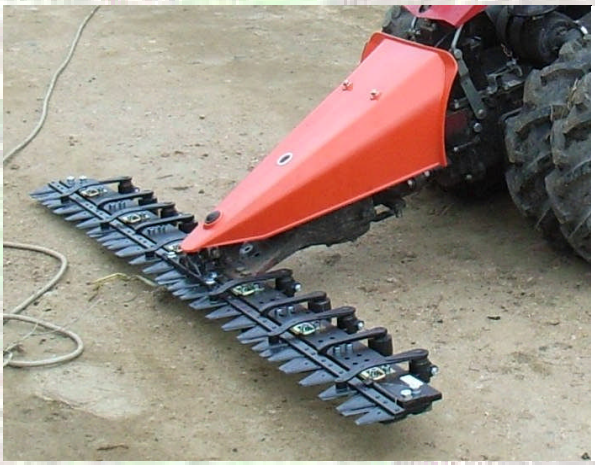
ALTERNATIVE CROPS CUT AND USAGES OF THE CaneThumper®

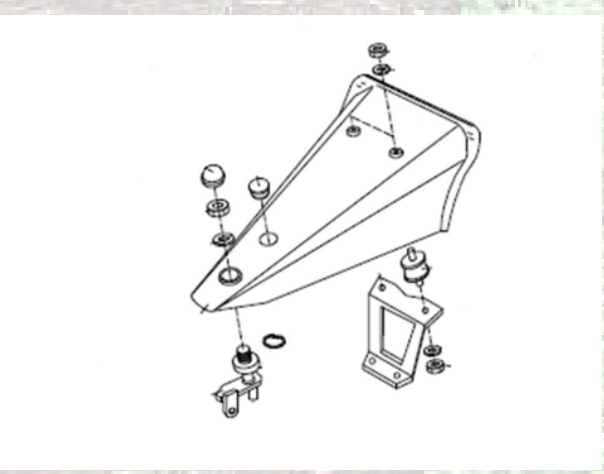
Introduction

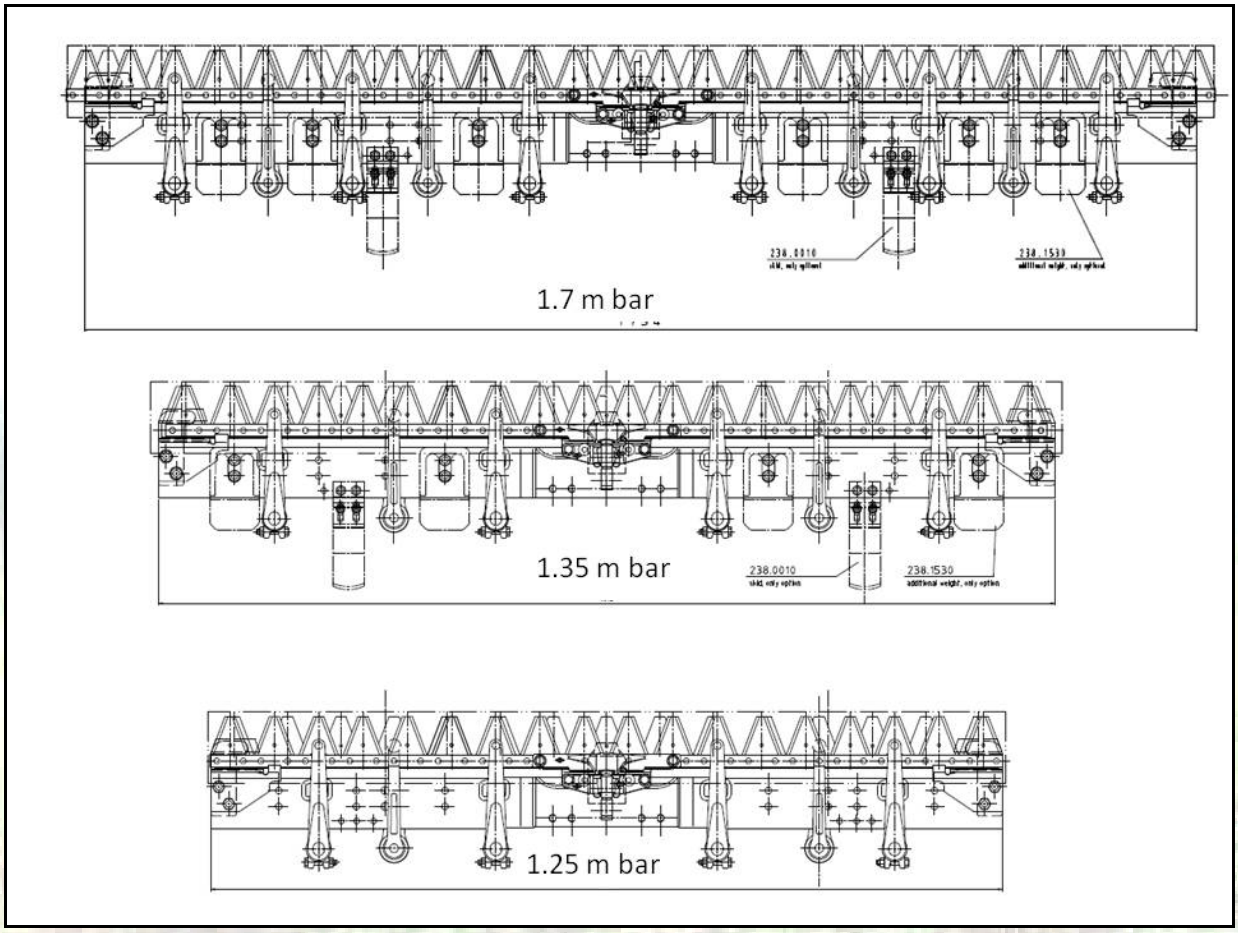
The sugarcane season normally does not run for the entire year. Depending on your area it ranges from 180 days to 230 days. This means that if using a **CaneThumper®** to cut your sugarcane then for 4 to 6 months the **CaneThumper®** is not utilised and the owner does not get a return on his investment. There has thus been a trend to determine other usages for the **CaneThumper®**. This has proved so successful that some people are buying the **CaneThumper®** only for other usages.

These usages include the following:
Grass cutting, eragrostis hay cutting, road edge maintenance, soya harvesting, essential oils harvesting and sweet sorghum to name a few.

To make the **CaneThumper®** as effective as possible there is some adjustments required to ensure that the job performs satisfactorily. This includes different cutting bars with longer lengths (shown below) to be more efficient and to ensure there is adequate crop flow in grass materials a shaking hood is attached as seen below.







Grass Cutting

This has been the most used alternative usage for cleaning up farm roads, keeping the weeds down between crops, around sensitive areas like orchads and for the edge of roads on highways and roads where convent ional brushcutters are nomally used.

The cutting speed is usually done in top gear which is 2km/hr. The following table shows the area cut per hr using the different length grass heads and the operating costs per hour in US dollars:

Speed (3rd gear)	**2 km/hr**		
		HEAD (m)	
	1.25	**1.35**	**1.7**
AREA(ha) per Hr	**0.25**	**0.27**	**0.34**
Operating Cost per hr	**US$2.74**	**US$2.8**	**US$2.95**

Grass Road Cutting

This is usually done with the 1.7m bar since the grass is generally not as thick or tough and is done regularly. The 1.7m bar is not advised for very dense material or where a high manouvarability is required. The following figures shows the 1.7m grass bar cutting an extraction road.

Road Maintenance on the Verge

The cleaning up on the side of the roads is traditionally done with a gyro-mower behind a tractor, by brushcutters similar to the STIHL or manually using a slasher. These all have limitations that include a high horse power requirement, dangerous due to high speeds and throwing stones into traffic, and is a manual intensive job if doing it by hand. The **CaneThumper®** fitted with the 1.35m grass bar is perfectly suited for this. It is resistant to bottles, rocks or other foreign matter, is safe and uses only 0.5 litres of diesel an hour. The following figure shows the **CaneThumper®** cutting the verge of a gravel dirt road without throwing stones into cars and being safe for other workers in the immediate surroundings.

Orchard Cleaning

A big problem with orchards is the weed control and maintenance between the tree's before they get big and canopy. This is usually a big expense to the farmer and has to use brushcutter or manually in between the trees in the row and a tractor down the row. The **CaneThumper®** with the 1.25m or 1.35m grass bar is perfect for this job. It is much quicker then manually or with a brushcutter, can get in-between the trees, does not damage the bark by throwing stones and has a low compaction. This is also very useful between any crop that is sensitive to chemicals and is able to get between them with a **CaneThumper®**.

Eragrostis (Hay) cutting

This is usually done with a rotary cutting system. It is left to dry and then put into a swath with a height no bigger than 0.5m using a trash rake. This in turn gets baled using a baler. A generally accepted loss is the cutting height and using the **CaneThumper®** it was found to be cutting much lower than conventional mowers.

Sweet Sorghum Cutting

In small scaled farming where large machinery is to expensive and the expertise is not high enough there is a need for semi-mechanised cutting and the **CaneThumper®** is very well suited to this. This was found in Paraguay where there is a sweet sorghum project and the cutting was all being done by hand. The standard **CaneThumper®** set-up was used and is very successful. The standard **CaneThumper®** set-up is able to cut any stalky crops like maize, sweet sorghum, sugarcane etc.

Essential Oils Cutting

There is a push in the world for essential oils and this is normally done on small areas especially since it is organically grown. The cutting of these plants takes a lot of time since usually done manually. The **CaneThumper®** is able to do this job easily and just requires the plants to be picked up from behind. It also sometimes requires larger wheels if the plants are planted on a high ridge. The image below shows the clean cut.

Soya Bean Cutting

Many farmers are turning toward away from mono-cropping. Mono-cropping causes the soils to degrade and there are many crops that put back vital nutrients and organic matter. In sugarcane there is a tendency to plant soya beans before re-planting. This break puts vital nutrients back into the soil (As much as 50 tons of Nitrogen per hectare). The problem

however arises of how to cut and reap the beans off the land without outlaying large amounts of money for harvesters that do large areas.

One farmer in the Oribi Flats region, South Africa knew how to solve this dilemma by using the **CaneThumper®**. Mr Paul Flanagan a sugarcane farmer on the South Coast of South Africa has seen the need to conserve his soils. He cannot however afford to leave his land fallow and not get a return off it. He decided to plant soya beans in his sugarcane re-plant areas that amounted to 22ha. This amount does not warrant a large harvester and so was stuck with how he was

going to reap his crop. He then turned to ESM and his **CaneThumper®** to solve this problem.

The beans were planted at 900mm spacing and so to be as efficient as possible, the outside wheel was removed so that the **CaneThumper®** could drive between the lines. This enabled him to maximise his efficiency by cutting 2 lines at once with the 1.35m bar. He managed to get as much as 2.5ha cut in a single day! He then collected from behind using manual labourers and loaded it into his box trailer. This was then taken back to his sheds were it was laid out to complete the drying process before he threshes it.

The labour breakdown was as follows for 2.5 ha of soya beans cut in an 8hr day:

1 **CaneThumper®** driver

1 tractor driver

4 bundle makers behind the **CaneThumper®**

3 Loaders onto the box trailer.

Please look at the following images that shows the process and to download the cutting please click on the link also below.

CONCLUSION

There are many usages for the **CaneThumper®** and one needs to explore these other avenues to keep the **CaneThumper®** a VERY economically viable unit. The patented double action sickle blade system is the most efficient CUTTING solution available so let's use it to solve any CUTTING problem.

THE CaneThumper® IS A MULTI PURPOSE MACHINE!

ORCHAD CLEANING VIDEO

SOYA CUTTING VIDEO