

## TECHNICAL SPECIFICATIONS

### Sugarcane Leaf-Stripper

Parameters	Specification
Dimension (LxWxH), mm	4200 x 2600 x 2300
Weight, kg	420
Prime Mover	10 hp, Air-Cooled, Diesel Engine
Output Capacity, tons/day	6.00
Stripping Efficiency, %	87.63
Fuel Consumption, L/hr	0.50
Minimum Operator Requirement	2 Personnel

### Sugarcane Loader

Parameters	Specification
Dimension (LxWxH), mm	945 x 900 x 3000
Weight, kg	168.50
Prime Mover	5 hp, Air-Cooled, Gasoline Engine
Capacity, tons/hr	7.50
Loading Efficiency, %	96.00
Fuel Consumption, L/hr	0.60
Minimum Operator Requirement	2 Personnel

### Sugarcane Cutter

Parameters	Specification
Dimension (LxWxH), mm	4200 x 2600 x 2300
Weight, kg	1400
Prime Mover	15 hp, Air-Cooled, Diesel Engine
Width of Cut, m	1.20
Field Capacity, ha/day	0.76
Fuel Consumption, L/hr	0.77
Minimum Operator Requirement	2 Personnel

# SUGARCANE HARVESTING EQUIPMENT

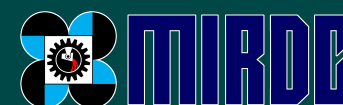


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## Sugarcane Leaf-Stripper

The sugarcane leaf-stripper is an agricultural machine designed to aid the tedious and ineffective manual leaf-stripping of harvested sugarcane stalks. This equipment aims to mechanize and fast-track the leaf-stripping of sugarcane stalks, hence, addresses the disadvantages of manual stripping. Its main function is to clean and remove of unnecessary leaves on sugarcane stalks in preparation for its post-harvesting processes. Moreover, it has a built-in sugarcane-top cutter which cuts the leafy topmost part of the stalk and can be transported easily in between sugarcane farms with its built-in hitch point. It is powered by a 10 horsepower, air-cooled diesel engine. The equipment is composed of input and output roller assembly, de-trashing assembly, hitch and chassis assembly, transmission system, and clutch system. During operation, the engine is initially started and the clutch is engaged. Then, the harvested sugarcane stalks' topmost leafy party are removed using the built-in cane top cutter. Afterwards, the stalks are fed into the input rollers, polished in the de-trashing brushes, and discharged through the output rollers.



## Sugarcane Loader

The sugarcane loader is an agricultural implement specifically intended to mechanize the labor-intensive and inefficient manual loading of sugarcane in delivery trucks. The equipment is composed of frame, throw-arm assembly, and transmission system powered by a 5 horsepower, air-cooled gasoline engine. Initially, it is attached to the delivery vehicle and started through its prime mover. The reciprocating motion of the throw-arm assembly is triggered by the sugarcane loaded to the equipment. A minimum of 5 kilograms of sugarcane should be loaded to automatically actuate the throw-arm assembly otherwise; manual actuation should be performed by lightly pressing either of the throw-arms. Upon actuation, the throw-arm assembly ascends along with the chain and sprocket transmission system. As the assembly reaches the top, a stopper hits the arm forcing it to throw the loaded sugarcane, at the same time the assembly hits a shock spring, hence, descends with the mentioned transmission system.



## Sugarcane Cutter

The initial stage of sugarcane harvesting is cutting. The developed sugarcane cutter is geared towards mechanizing this process and increasing the efficiency through improved cutting rate/speed. The equipment is easily operated through its built in operation and control mechanisms. It is composed of the hydraulics, input conveying, cutting, and output conveying assemblies. Moreover, it has an operator-friendly control systems, protective shed, and frame. In operation, the equipment is positioned at the field to be harvested and the engine is started. The equipment runs through each planting row until the entire field has been harvested. With its built in pleating assembly, the slanted crops are easily amassed and cut using the conveying assembly and the cutting mechanism, respectively. Afterwards, the cut sugarcane stalks are conveyed to the right-hand side of the equipment.

