

National Innovation Foundation

SD1- Document

Title of the Innovation: Power Tiller Operated stubble shaver
Innovation Ref No: 3131E0138

Innovator Profile:

A	Name	S. Ganesamurthy Asari
B	Postal address	Reddiyar Street, Kilkavara pattu, Panrutti TK. Cuddalore District, Tamilnadu. Ph.No.: 04142-277294 (Res), 09865566689 (PP)
C	Profession	Small-scale manufacturer.
D	Educational Status	Matriculate
E	Gender and Age	Male, 47 Years
	Biography/Background	The innovator is belongs to the farming community, he has studied up to sixth standard, later helped with his father's in bullock cart repair shop. He learnt some of the basic techniques in cart making from his father and further by self-learning he started developing a number of farm equipments without any supports.

Scout: RIN, Chennai- Tamilnadu

Summary:

The innovator hails in sugarcane cultivation area where could found lack of mechanization in sugarcane farming. He found stubble shaving in sugarcane with tractor implements has high cost input and power input. Hence would like to mechanize the stubble shaving as well as intercultural operation with less power input. He found the commercially available power weeders can do better job in land preparation and intercultural operation in sugarcane field but it cannot do the stubble shaving. Hence he made a simple vertical axis roto -tiller attachment to the 10 hp power tiller for stubble shaving as well as weeding.

Innovator's Claims:

It can perform weeding and stubble shaving. It covers about 1 acre per hour with 1.5 litres of fuel consumption.

Photograph:



Innovation Details

1	Category	Agricultural Machinery
2	Detailed Description	It is tractor PTO operated sugarcane stubble shaver. It can be attached to any type of tractor with 35 hp powers. The disc blade is coupled with vertical shaft. The vertical shaft is provided with bevel gear arrangement, which is powered by 540-rpm tractor PTO. The whole unit can be easily attached through tractor three-point linkage.
3	Keywords	Trash grinder, chipper shredder, leaf crusher, shredder

Evaluation of Entry

1	Novelty of the innovation, feature or subsystem	The novelty lies in the unique design rotary disc single row shaver for sugarcane mechanization
2	Comparison with currently available conventional alternatives – a) In functioning, b) In cost, and c) Elimination/ Minimizing of drudgery	 The innovation can cut single row in a pass whereas the swinging blade type shavers can cut two rows in a pass but it will give the superficial cut. The cost of the attachment is about Rs. 15,000/-. NIL
3	Encouragement needed: a) Current limitations or demerits b) Areas requiring Further developmental Work	 NIL NIL

4	Commercialization – a) Status of Commercialization. (Manufactured/sold/ Used locally?) b) Potential for diffusion	The Innovator gives the union custom hiring basis.
5	Current and future application areas (multiplicity of utility)	It is used for stubble shaving only
6	Social /environmental impact	It can do better service for sugarcane farming community
7	Significance to women, handicapped and other marginalized sections	NIL
8	IPR considerations	Patent filing in under process
9	Reviewers' comments	