
Sugarcane Based Integrated Farming System

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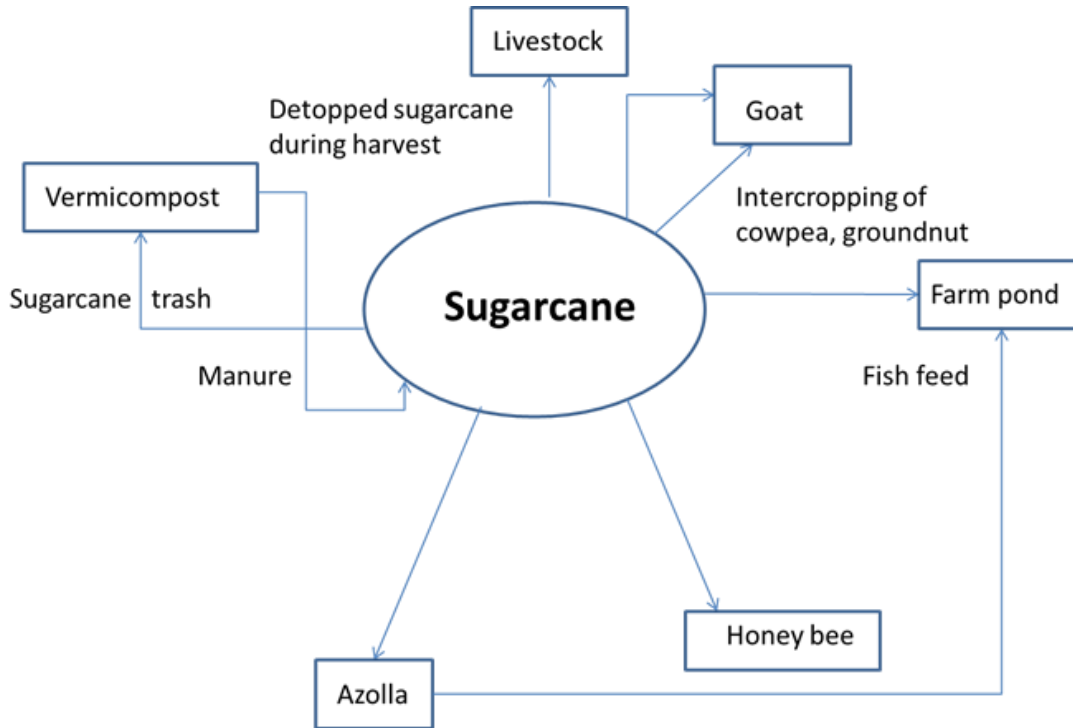
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ABSTRACT

Sugarcane based Integrated Farming system can improve the economics of sugarcane farmers and a way towards organic agriculture. Instead commercial Agriculture, Sustainable Agriculture can be adopted in the farmers field through Integrated Farming System. Sugarcane is a 12 months old crop and no part of cane is commercial except Sugar production. This Integrated Farming system includes the Farm pond with fishes Tilapia, grass crap, common crap for additional revenue and as rain water storage in both rainfed and irrigated system of farming. Livestock, goat, honey bee, azolla, mushroom, vermicompost can be interlinked for effective recycling of resources. The output of one component should be the input of other component. All the crop residues will be converted to organic manure through vermicomposting and this manure is applied to the sugarcane, this in turn reduces the cost of fertilizers and improves the yield and soil fertility. Goat component is a remunerative enterprise in a ratio of 20+3 (female + male) per hectare.

The goat pellet can be manure for sugarcane and the weed problem will be reduced on goat grazing during land preparation. Milch animals is also integrated, detopped cane is now a very great fodder for cattle nearly 0.3mha of sugarcane area is available in Tamil Nadu, detopped cane can be green fodder meets the demand of livestock atleast for one month during harvesting. The inter cropping of blackgram, green gram, groundnut and sorghum can also meet the fodder demand of the cattle. Azolla is now turning in to livestock and fish feed hence, this also added as a component in sugarcane based intercropping system. Honey bee supplements the iron requirement of the family

members and an additional income as this can be reared on borders of farmpond and can collect nectar form the seed crop of green manure or intercrops of blackgram or green gram. Flowchart is clearly depicts the flow and recycle of resources in sugarcane based farming system.



Recycling of resources in sugarcane based integrated farming system

GOAT FARMING

Goat Farming is one of the economical enterprises of Integrated Farming System besides cropping alone. It is prepared to establish a 20+3 goat farming unit with a shed. The budget for purchasing goat component and construction of shed along with 5% contingency is enclosed. Weeds and intercrops, detopped cane can be feed for goat.

TOTAL COST OF THE PROJECT

Sl. No.	Description	Unit	Amount (Rs./unit)	Total amount (Rs.)
I	COST OF GOAT			
1.	DOE	20	10000	200000
2.	BUCK	3	12000	36000
II	Cost of Shed			
1.	1000sqft	1000sqft	120/SQFt	120000
III	Chaff cutter	1	30,000	30000
IV	Drinking facility	1	20000	20000
				406000
V	Contingency (5%)			20300
			Total	426300

Rupees Four Lakhs and Twenty six thousand and three hundred only.

VERMICOMPOST UNIT

Sugarcane trash mixed with cow dung can be pre-decomposed (incubated) and this is put in vermibeds *Eudrillias euginae* is released for complete decomposition and the manure can be applied to the sugarcane field for improving the yield and soil fertility.

SI.No.	Description	Amount (Rs.) per unit	Total amount (Rs.)
1.	Concrete vermibeds – 6 no including earthworms and complete establishment	30,000	1,80,000
		Total amount	1,80,000

Rupees one lakh and Eighty Thousand only.

CONCLUSION

The Sugarcane based Integrated Farming System includes the Goat, Livestock and fish rearing. Intercropping with blackgram, greengram, Groundnut can be a cattle feed besides economical returns. Detopped cane also included as a cattle feed and can solve the fodder crisis for hardly one month. IFS is the remunerative interlinking of components for better income besides cultivating the sugarcane alone. Sugarcane trash available can be converted in to the organic manure through vermicomposting.