

Harnessing plant, animal and human waste as effective inputs

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The waste generated in a village, if properly utilised, can help a farmer save some money by not having to buy fertilizers and generate income.

"The main concept is to integrate the animal, plant and human wastes into useful components for the manufacture of crop inputs such as vermicompost, pest repellents and biogas, thereby reducing input cost for farmers.

Nothing goes waste. If farmers start practising this type of cultivation it can definitely assure them cent per cent self sustainability," says Dr. P. Alagesan, Programme Coordinator, Myrada Krishi Vigyan Kendra, Gobichettipalayam, Erode district.

Best example

Among the several farmers who have been introduced into this concept by Myrada, Mr. M. Nagesh, from M. P. Doddi village of Talavadi block is considered the best.

"Apart from adopting this nearly 10 years back, the farmer has followed all the instructions carefully, interacts with us on a regular basis and tried to set up maximum interventions in his farm," says Dr. Alagesan.

Initially he set up a biogas unit to replace the demand for firewood.

He used to carry 45-50 kg of firewood daily from a nearby reserve forest. But after the unit installation the farmer's drudgery has been reduced and he is able to save about Rs. 500 a month by not buying LPG gas.

His family requirement is about 15 kg of cow dung daily to produce the gas and once every 2-3 months the cow dung slurry is recycled through a vermi-compost process unit. Farm wastes like leaves, crop residues etc are also added to the slurry.

No external dependance

"With the amount of vermicompost I generate in my own unit, I can easily supply the inputs for my three acres. I do not depend or buy outside inputs for my crops. Beyond being a farmer's friend earthworms have become our family friend," he says.

The farmer grows crops likes potato, onion, turmeric and garlic.

Daily 20 kg of cow dung and 10-15 litres of cow urine are collected effectively in a modern cattle shed he has constructed from which 40 litres of Panchagavya and 20 litres of pest repellent are produced. A unique feature in the farm is the rain-water harvesting component.

Usually it is rare for a farmer to adopt rain-water harvesting structures since many opine that their open fields are natural rain-water harvesting units but Mr. Nagesh has built a cement tank (ten thousand litre capacity) which he keeps open during the rains.

The water is later used during summer (April- July) for feeding cattle, cooking, washing and other household purposes.

The water tank is fitted with an airtight lid to protect water from direct sunlight exposure thus preventing algae from growing on them.

Further experiments

The farmer has further experimented with the implementation of eco san toilet as an alternative approach to safe and efficient management of human waste. The waste converted into manure from the toilet is used for growing his fodder crops.

"We started an awareness programme for eight families nearly a decade back on the importance of harnessing the wastes as useful inputs. Initially it was met with a lukewarm response with many shying away or expressing their unwillingness to do it. But today nearly 60 villages and 800 families are using this concept.

Better awareness

"Today we find them to be more aware on the subject and the most encouraging sign is those who practise it goad others also in their area to adopt it," says Dr. Alagesan.

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