



## PANCHAGAVYA: A Remedial Tool to Achieve Sustainability

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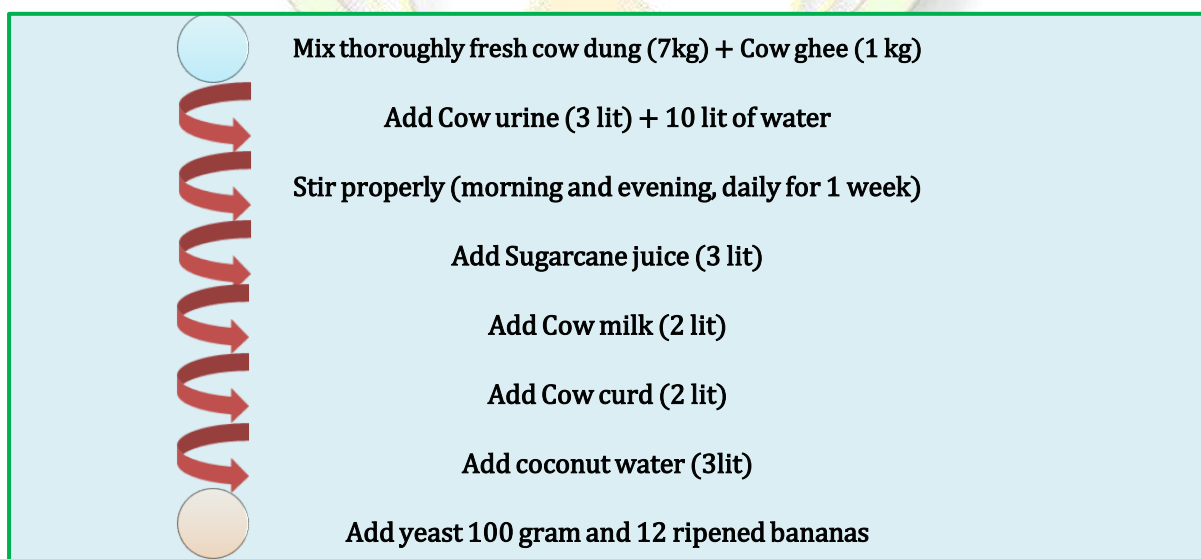
### Abstract

A traditional Indian preparation made from cow-derived products, Panchgavya has become more and more popular in modern agriculture because of its ability to increase crop yields, improve soil health, and lessen the need for chemical inputs. The function of Panchgavya in modern agricultural methods is thoroughly examined in this review study. It investigates the science of panchgavya, how it's used in sustainable agriculture, and how it affects environmental sustainability and food security.

### Introduction

Many obstacles confront modern agriculture, such as deteriorating soil health and environmental issues related to chemical inputs. An age-old farming remedy called panchgavya, which is made of cow-derived ingredients including milk, curd, ghee, urine, and dung, has shown promise in treating these problems. In this we look at the scientific underpinnings of panchgavya in agriculture and how it could change contemporary agricultural methods. Panchagavya has the ability to strengthen plant systems by fostering development and immunity. Cow dung, cow urine, milk, curd, jaggery, ghee, banana, tender coconut, and water are the nine components that make up Panchagavya.

### Panchagavya Preparation ( In a Flowchart Form)



The whole mixture is to be incubated for two weeks and the preparation should be filtered through double layered muslin cloth and stored in bottle under refrigerator and used as and when required.

### **Effect of Panchagavya on plants**

- Spraying plants with Panchagavya causes them to consistently grow larger leaves and a thicker canopy
- The rate of branching is reasonably high; and the roots is extensive and vigorous.
- It was also discovered that the roots extend and develop into deeper strata.

### **Effect of Panchagavya on soil fertility**

1. Panchagavya increases soil health by boosting macronutrients, micronutrients, and beneficial microbes, all of which enhance soil fertility.
2. It functions as an organic manure, which increases the soils ability to store water.
3. It promotes the development and procreation of beneficial soil microbes.
4. It promotes plant development and boosts the intake of nutrients by plants.

### **Effect of Panchagavya on pest and diseases**

1. It gives plants more immunity, which gives them resistance to pests and illnesses.
2. A range of advantageous byproducts generated by bacteria, including hydrogen peroxide, organic acids, and antibiotics that are efficient in combating a variety of harmful microbes.

### **Conclusion**

Panchgavya presents a new agricultural method that is environmentally benign and sustainable. It is a useful addition to the toolbox of agricultural methods because of its capacity to enhance crop output, strengthen the health of the soil, and lessen the need for chemical inputs. Panchgavya is a potential approach to agriculture's future as we work to feed the world's expanding population while protecting the environment.

### **References**

1. ORGANIC FARMING :: Panchakavya (tnau.ac.in)
2. (PDF) Panchagavya in Organic Crop Production (researchgate.net)