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PANCHAGAVYA: A BOON TO THE FARMERS

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Abstract:

Panchagavya is a organic growth stimulant made from natural ingredients to promote plant growth and safeguard the soil micro-organisms. Using this solution in farming, it preserve the reproductive and regenerative capacity of the soil, good plant nutrition, and sound soil management, produces nutritious food rich in vitality which has resistance to diseases. This has a significant impact on both animal and human health. *Panchagavya* is a less expensive, environmentally friendly organic preparation made from cow products such as dung, urine, milk, curd, and ghee. *Panchagavya* is a powerful plant growth stimulant and organic product that aids in the promotion of growth and immunity in plants. It is a sustainable agriculture practice used by farmers in South India.

Introduction:

With the burgeoning population, in the mid 1970s, the green revolution gave nation the power to produce adequate food with the introduction of high yielding varieties and utilization of chemical fertilizers and pesticides to grow these crops. But as time went on extensive dependence on chemical farming has shown its darker side. The land is losing its fertility and is demanding larger quantities of fertilizers day by day. Pests are becoming immune demanding to the use of stronger and costlier pesticides. Due to increased cost of farming, farmers are falling into the trap of money lenders, who are exploiting them to no end, and forcing many to commit suicide. The indiscriminate and unscientific use of pesticides and fertilisers in agricultural cultivation has resulted in long-term damage to humans. This has pushed food producers and consumers to seek out alternatives, such as human-friendly, environmentally friendly conventional agriculture techniques. India has a wealth of indigenous knowledge about plant health that has been chronicled in ancient writings that paid close attention to philosophy, religion, health care, agriculture, and livestock.

Indian knowledge systems have the answer to many problems of humanity. Our forefathers had propounded and practiced those systems directed towards attainment of a healthy body and sound mind. *Vrikshyayurveda* is a treasure trove of information about agriculture and as such could support to organic farming; *Panchagavya* has been one such piece of wisdom, meant to safeguard all the human beings, animals, plants and microorganisms that dwell on the earth's surface. This product from cow has the ability to bring the flow of cosmic energy. Cosmic energy, when made to pass through a living system, it removes the imbalance in terms of physical, chemical, biological and physiological aspects and harmonizes the basic elements that revitalize the growth process (Natarajan, 2002).

Ingredients:

Cow dung mixed with water: 5 kg	Cow urine: 3 litres
Cow milk: 2 litres	Cow curd: 2 litres
Cow ghee: 1 kg	Jaggary: 1 kg
Well-ripened yellow banana: 1 dozen (12 pieces)	

Preparation Method:

Wide mouthed mud pots or concrete tank or plastic drum should be used for preparation of *Panchagavya* solution. The above said and measured amount of cow dung and ghee should be added first into the selected container. This should be kept for about three to four days for fermentation happen. On the fourth or fifth day the remaining ingredient should be added to the container and kept for 7 to 8 more days. The ingredients in the container should be well mixed by stirring daily clockwise and anticlockwise during morning and evening. The prepared *Panchagavya* was filtered with cloth and used for foliar spray.

Benefits of *Panchagavya:*

- It act as an organic growth promoter and immunity booster for plants. This also cures already infested plants and other living organisms
- It increases the yield and quality of the produce
- It increases the shelf life of vegetables, fruits and other agriculture produce
- It produce larger leaves and dense canopy
- It increases the sugar content and aroma of fruits
- This application makes crops to mature early
- It reduce the water requirement by 25 to 30% thus sustain drought conditions
- It profuse and dense roots, penetrating to deep layers in the soil
- This can reduce cultivation cost when made on your own farm when compared to chemical fertilizers
- It helps growing organic farming sector

Table 1: Bio-chemical Properties of Panchagavya

S.No.	Parameter	Panchagavya
1.	pH	6.50
2.	EC (dsm-1)	3.60
3.	Total N (%)	1.10
4.	Total P (%)	0.43
5.	Total K (%)	1.10
6.	Fungal population (CFU)	34.3×10^4
7.	Bacterial population (CFU)	22.7×10^{6}
8.	Actinomyceties population (CFU)	$4.6 \ge 10^5$

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