

Organic Earthen Pot Arkh – Reviving the Ancient Wisdom

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Abstract:

ITK is the unique knowledge that examines traditional knowledge which includes modern technology with current experiences. ITK are the source for improving knowledge and developing technology. It helps in reducing reliance on foreign inputs and encourages eco-friendly agriculture which benefits farmers in remote areas. Organic earthen pot arkh is one of the ITK's which is the easiest method and requires easily affordable ingredients. The organic earthen pot has having greater influence on farmers to manage the farming system and is very beneficial to rural farmers. Organic earthen pot arkh reflects the ancient methods of natural farming.

Introduction

There are many ITK practices all over India. The vast knowledge provided by these ITKs assists natural farming. Most of these practises are practiced by using natural materials available in their localities. Based on current technology the skills may be outdated. There are many ITK to stretch the skills and knowledge about organic farming to the rural farmers as this ITK includes Neem leaves – which acts as an antiseptic and is harmful to flour beetles, and bean-shaped beetle. It increases the availability of nitrogen fertilizer and reduces the rate of nitrification. It prevents storage pests. Pongamia leaves –show an anti-feedant or repellent effect on many insects which avoids treating crops. It acts as similar Insecticidal properties of neem and also acts as green manure. Calotropis leaves- act as a soil binder.it is an indicator of overgrazed, it consists of the nematicidal property. Jaggery – it acts as a natural growth promoter for the crops. It acts as a good source of energy and helps the plant to grow healthier and stronger. It is a good source of micro and macronutrients. It helps in the stimulation of plant growth. It also helps maintain the natural balance in the ecosystem. Cow urine- enhances

the nutrient uptake by plants and is also a natural fertilizer for crops. It consists of nitrogen, Phosphorus and Potassium which are the major nutrients required for plant growth. Acts as liquid fertilizer as a pesticide for plants.

Materials and method of preparation

Organic earthen pot Arkh is very economical as it is a cost-effective and easiest process and also requires less period. For the preparation of 1 litre of organic earthen pot arkh required 1 unit of earthen pot, 1 litre of cow urine, 250 grams of fresh neem leaves, 250 grams of calotropis leaves, 250 grams of Pongamia leaves, 10 grams of jaggery. After the collection of fresh leaves. The leaves are to be crushed before adding them to the pot. 1 litre of cow urine is added into the pot along with the 10 grams of jaggery. The earthen pot is recommended as it is non-reactive with the formulation. Followed by the addition of crushed (250 gm Neem, 250gm.calotropis, 250gm. Pongamia) leaves. Then the solution is to be stirred till the jaggery melts down and the ingredients get mixed well.



Fig1.1 Pongamia leaves



Fig1.2 Calotropis leaves



Fig1.3 neem leaves



Fig1.4 jaggery



Fig1.5 cow urine



Fig1.6 day1 to day6



Fig1.7 day6 to day10



Fig1.8 Final extract

The earthen pot is to be tied up by covering it with a clean cloth to avoid microbial contamination and left for fermentation for about 7 to 10 days. During these 10 days per every 2 days of interval, the solution is to be mixed up with a stick. The addition of water in between the process is avoided which disturbs the fermentation process. After 10 days the liquid fertilizer is extracted from the earthen pot with the addition of 1 litre of cow urine.

Things to Know About Organic Earthen Pot

Application of organic earthen pot arkh can be done to the soil by diluting 20 ml of extract per 1 litre of water and can be sprayed or drenched the soil with the help of rose cane for control of pests and diseases and the direct application is prevented. For bulk quantity a minimum of 5lit.of cow urine, 5kg. of Neem leaves, 5kg. of Calotropis leaves 5kg. of Pongamia leaves and 50gm. of jaggery is used. The earthen pot arkh must be placed in a shaded place to prevent sunlight. The total production cost is 10₹ for 10 grams of jaggery and 100₹ for earthen pot. The advantages of organic earthen pot arkh are:

- ✚ Organic earthen pot (ITK) which is considered an effective organic liquid fertilizer that enhances the productivity of crops.
- ✚ Soil fertility: enhances the availability of nutrients in the soil.
- ✚ Investment: it is not an expensive process as all the ingredients are available naturally in the surrounding environment.
- ✚ It is renewable, eco-friendly and biodegradable.

Conclusion:

Organic earthen pot arkh is one of the traditional ITK which includes more traditional knowledge which has been followed from ancient days and is considered as most effective against various pest and diseases as the neem leaves and cow urine contains antimicrobial agents which helps in preventing disease transmission in plants. The use of natural products in preparation can improve health and nutritional values in soil, crops and humans.

Reference

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