

Rangzhin Luechu 1

What is Rangzhin Luechu?

Rangzhin Luechu is a liquid organic manure popularly used as a means of organic farming. It is considered as an excellent source of nutrient and contains: Natural carbon, biomass, nitrogen, phosphorous, potassium and micro-nutrients (agrifarming.in).

Ingredients and quantity required for 1000 liters water tank:



Jaggery/brown Sugar (6 kg) Butter Milk (20 liters) Cow urine (10 liters)

OR



Soil (2 handful) Gram flour/ Besan (2 kg) Fresh Cow Dung (35 kg)

Fig 1: Ingredients of Rangzhin Luechu

How to prepare Rangzhin Luechu 1?

Rangzhin Luechu preparation in 1000 liters production tank

Two tanks are required (fermentation and filtration, Fig.2).

1. Mix all the ingredients of required quantity in the fermentation tank and let it ferment for 5 days (removes toxin). After 5 days we can use the liquid fertilizer.
2. Stir the mixture 2-3 times in a day.
3. Pass the fermented solution through filtration tank by opening the valve connected to two tanks to obtain the clear liquid (filtrate machine is set in filtration tank).
4. Filter the liquid and it is ready to be used as bio-fertilizer (Fig 3).

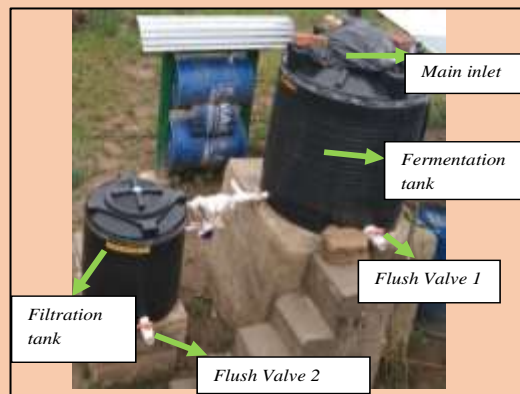


Fig 2: Semi-automated Rangzhin Luechu plant

How to use Rangzhin Luechu 1?

Rangzhin Luechu is applied in different ways: Through irrigation, foliar spray, direct application on surface of soil.

The liquid manure can be used for 8 days effectively.

Apply liquid manure during dusk or dawn

Dosage

In one acre of land, 200-250 liters of solution is applied through irrigation water or direct soil application and foliar spray at the ratio of 1:1 (Rangzhin Luechu: water)

Start application after one month of sowing or transplanting. Apply once at the interval of 15 – 21 days



Fig 3: Outlet of Rangzhin Luechu from filtration tank

Rangzhin Luechu in small scale

Rangzhin Luechu can be made according to the scale of farm. It can be prepared in a smaller bucket or drum. For a small garden we can prepare in 50 liters bucket with 2.5 kg cow dung, 2.5 liters cow urine, 0.5 kg jaggary, 0.5 kg gram flour, 1 liter butter milk.

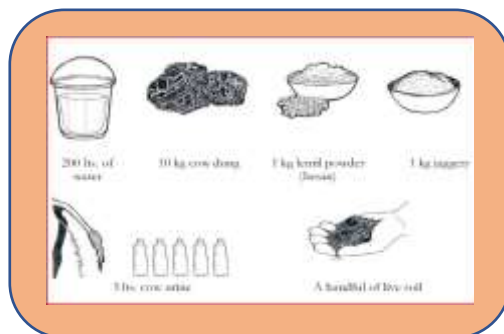


Fig 4: Ingredients and quantity required for 1 acre area

Other forms of Rangzhin Luechu:

Semi solid- 50 kg Cow dung, 2 liters cow urine, 5kg jaggary, 5 kg pulses and one handful of fertile soil: Mix with little quantity water. Make small balls and dry in sun. Ball can be stored and used when required.

Dry- 100 kg cow dung, 1 kg jaggary, 1 kg basan, 10 liters liquid manure or water: mix thoroughly, prepare a heap and cover with jute bags for 2 days to ferment. Then dry in sun light. After drying it can be stored for six months.

Seed treatment- Soak 1kg seed in 10-15 ml of Rangzhin Luechu. It can also be used for making compost.

Advantages of Rangzhin Luechu

- Can also be used as bio-pesticide and fungicide.
- Compared to other manures, compost and vermicompost, it can be prepared quickly and has proven to be more effective.
- Acts as an agent to increase microbial count and friendly bacteria in soil.
- Preparation time is short(4-5days). It can be used efficiently and frequently.
- Increases earthworm count leading better soil aeration and water holding capacity.
- Improves soil pH.
- Suitable for all crops.

Disadvantages of Rangzhin Luechu

- Short shelves life and foul smell.
- Drenching in soil (if it is not automated with drip and sprinkler) demands higher labor.

PH	05.99	EC	02.88mmhos/cm
Moisture	99.5%	Ash	00.24%
Organic carbon	00.10%	Organic matter	00.18%
Nitrogen	00.047%	Iron	00.56
Phosphorus	173.78ppm	Zinc	09.80ppm
Potassium	567.68ppm	Copper	27.63ppm
Calcium	135.72ppm		
Magnesium	288.76ppm	Source: Suchet Agro LLP, India	

Table 1: Nutrient content of Rangzhin Luechu



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Rangzhin Luechu (Bio-fertilizer)

“A popular technology for maintaining crop
and soil health in organic farming”



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