

BANANA SHAKTI - FOR ENHANCED PRODUCTIVITY AND FRUIT QUALITY



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(K. J. Jeyabaskaran and R. Pitchaimuthu)

Preamble

Nutritional deficiencies and imbalances are now-a-days emerging as major threats in the Indian Banana Production System. Lack of awareness about the importance of balanced fertilization has led to indiscriminate application of certain nutrients causing deficiency of micronutrients. In addition non-availability of good quality organic manures is also one of the factors for poor soil health. Particularly, the micronutrients are very much neglected among the banana farming community in India and essentiality of micronutrients in banana production is gaining importance. Keeping this as a challenge, the ICAR-National Research Centre for Banana, Trichy (Tamil Nadu) has focused its research programme on micronutrient requirements of banana. Based on extensive survey and various research findings enunciated from different soils and locations, the Centre has formulated a micronutrient mixture, named 'Banana Shakti', in 2007. Now, this mixture has been widely accepted by the farmers in many banana growing regions like Tamil Nadu, Maharashtra, Karnataka, Andhra Pradesh, Kerala, Gujarat, Uttar Pradesh and Bihar and gained popularity among the banana farming community. This is the only banana micronutrient mixture suitable for foliar spray and soil application.

Composition of Banana Shakti

Iron : 4.75%; Zinc: 5.25%; Boron: 2.50%; Manganese: 4.50%; Copper: 2.40%

Mode of application

If the soil pH is more than 8.5, foliar spray of 2% Banana Shakti at 4, 5 and 6 months after planting is recommended. If the soil pH is less than 8.5, soil application of 10g Banana Shakti per plant at 3 months after planting is recommended.

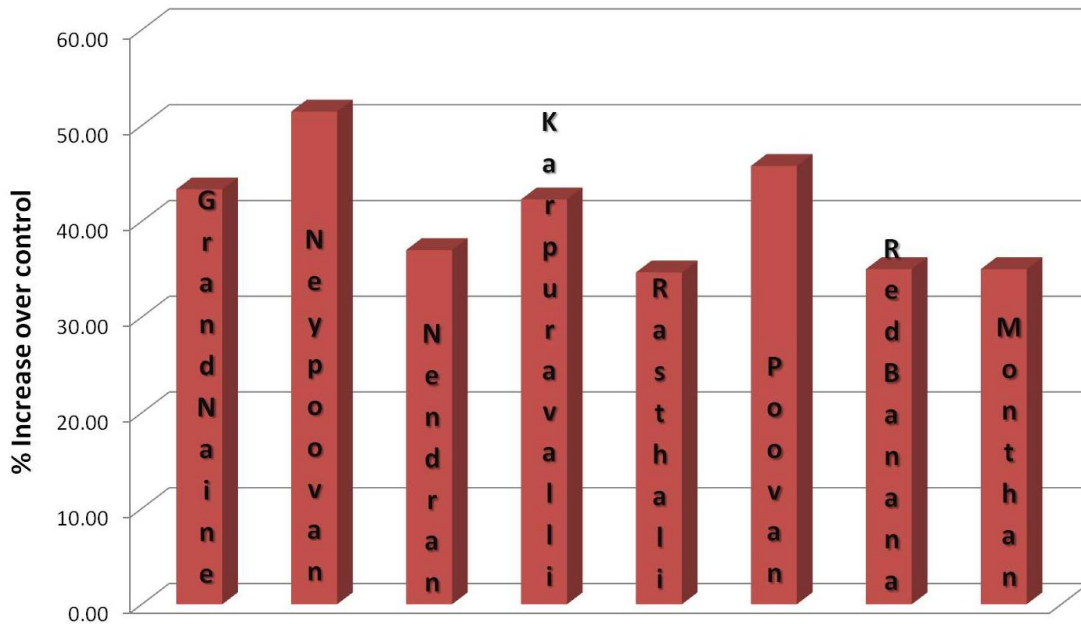
Advantages of Banana Shakti

It corrects the micronutrient deficiency and increases the availability of macro and micronutrients to banana crop thereby increasing the productivity by 15-20%. Increases the TSS of fruit by 2.4 °Brix (without Banana Shakti, TSS is 28 °Brix and with Banana Shakti, TSS is 30.4°Brix) and decreases the acidity of fruit by 0.03% (without Banana Shakti, acidity is 0.23%

and with Banana Shakti, acidity is 0.20%) in NeyPoovan banana leading to improvement in fruit taste, sweetness, flavour and aroma.

Variety wise increase in bunch weight and profit due to spraying of 2% Banana Shakti in Banana (based on the feed-back collected from the banana farmers of Tamil Nadu, Kerala, Karnataka, Maharashtra)

Variety	Average bunch weight without Banana Shakti spray (kg)	Average bunch weight with Banana Shakti spray (kg)	Increase in bunch weight (kg)	Peak market price of 1 kg banana (Rs.)	Additional profit per bunch (Rs.)	Additional profit per hectare (Rs.)
Grand Naine	30	34	4	30	120	3 lakhs
NeyPoovan	13	18	5	40	200	5 lakhs
Nendran	12	15	3	20	60	1.5 lakhs
Karpooravalli	28	32	4	20	80	1.9 lakhs
Rasthali	18	21	3	20	60	1.5 lakhs
Poovan	18	23	5	15	75	1.9 lakhs
Red Banana	15	18	3	40	120	2.7 lakhs
Monthan	15	18	3	15	45	1.1 lakhs



Impact of Banana Shakti (2%) spray on % increase in bunch weight of commercial banana varieties



A Grand Naine banana sprayed with Banana Shakti at Sirugambur, Trichy District, Tamil Nadu



A farmer with Grand Naine banana bunch sprayed with Banana Shakti



Effect of Banana Shakti on Nendran at Nochchiyam, Trichy District, Tamil Nadu



Interview with the banana farmers on benefits of Banana Shakti at Pachchur, Trichy District, Tamil Nadu