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Center for Smart Agriculture

Hi Tech Fruit Culture



Module 4: Nutrient Management
Session 2: Nutrition in Papaya and Pineapple



Nutrition in pineapple

- Pineapple plants require heavy manuring. It can absorb nitrogen in the form of ammonia. Ammonium sulphate, therefore, is the best fertilizer for pineapple.
- 20 to 30 tons of FYM and 350:130:440kg and 525:130:175kg of N: P₂O₅: K₂O is given in southern dry regions/ hills and coastal regions respectively.
- Full P and half K are given at the time of planting and the remaining half K is given 6 months after planting. Nitrogen should be applied in 6 split doses at bi-monthly intervals starting from two months onwards.
- Sometimes zinc deficiency in pineapple leads to a condition called crookneck with a small constriction in the leaves. Spraying of 0.5% zinc sulphate can prevent it.



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Growth regulators recommended for different months to induce flowering

Month	Growth regulators/concentration
September-January	NAA 10ppm (Planofix 1ml/4.5 litres of water)
March-May	Ethrel 10ppm (2.5ml/100 litres of water) + 0.04% sodium carbonate
All months	Ethrel 25ppm (6.5ml/100 litres of water) + 2% urea + 0.04% Na ₂ CO ₃



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- The growth regulator is to be poured into the heart of the plant at 50ml per plant.
- After the treatment, plants will take 45-50 days to put forth the inflorescence. If it rains within 24-36 hours after the application, the treatment should be repeated.
- Plants with 35-39 active leaves are optimum to force it to flower by treating with growth regulators.



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Nutrient management in Papaya:

- Papaya is a fast growing plant producing flowers and fruits year round; hence it is essential to provide nutrition at regular intervals. Normally for obtaining higher yield, application of 50kg of FYM along with 250:250:500g of N, P, K is recommended.
- Inorganic fertilizers should be provided in five or six split doses at 2nd, 4th, 6th, 8th and 10th month after planting. Nitrogen and Potash in the form of ammonium sulphate and sulphate of potash respectively improves the keeping quality and colour of fruits.
- Fertilizers should be applied in a 10cm deep circular trench 15-20cm away from the trunk and covered with soil. Light irrigation should follow fertilization



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THANK YOU