

Effect of different levels of uptake stimulants drenching to increase the yield of Dolichos bean

Objective: Find out the best stimulants drenching to increase the yield of Dolichos bean crop.



Introduction:

Dolichos bean, also known as Lablab bean (*Lablab purpureus*), is a significant vegetable crop from India, belonging to the Fabaceae family. Known by various names like Indian bean, Hyacinth bean, and Egyptian kidney bean, it is widely grown for its nutritious pods, green seeds, and dry seeds. The protein content in pods and seeds ranges from 10-19% and 15-25%, respectively. In India, the green and tender pods of the Dolichos bean are commonly cooked and consumed as vegetables, while the dry seeds are used as pulses. The plant's foliage is also utilized as hay, silage, and green manure. Due to its adaptability and drought resistance, Dolichos bean can thrive in various environmental conditions and can be grown either as a monocrop or in intercrop systems. It is mainly cultivated in Karnataka, Tamil Nadu, Andhra Pradesh, and Maharashtra. As a legume, it enhances soil fertility by fixing nitrogen, thereby improving crop yields in an eco-friendly way. Proper soil nutrient management, especially the

application of nitrogen, phosphorus, and potassium, is essential for boosting the growth, yield, and quality of the Dolichos bean crop.

Treatments:

Crop : Dolichos bean
Variety : Bauni
Experiment Layout : RBD
No. of Replications : Three
Spacing : 60 cm x 45 cm
Plot size : 4.5 m X 1.2 m
Date of sowing : 24/01/2024

Treatment details:

Treat. No.	Treatment Details
T1	P star @ 1 ml per liter water
T2	P star @ 2 ml per liter water
T3	P star @ 3 ml per liter water
T4	Drip K plus @ 1 ml per liter water
T5	Drip K plus @ 2 ml per liter water
T6	Drip K plus @ 3 ml per liter water
T7	Control

Methodology:

A field experiment was carried out to find out the best stimulants drenching to increase the yield of Dolichos bean crop during *Rabi* season of 2023 at ASPEE Foundation, Tansa Fram, Palghar, Maharashtra. Seven different organic formulations along with control were tried in Randomized block design with three replications.

As per treatments spraying of organic substances carried out periodically. Observations of plant height, number of branches per plant, No. of pods per cluster, pod length, Pod girth, pod weight, no. of seed per pod, pod yield per plant and pod yield (kg/ha) were recorded.

Layout:

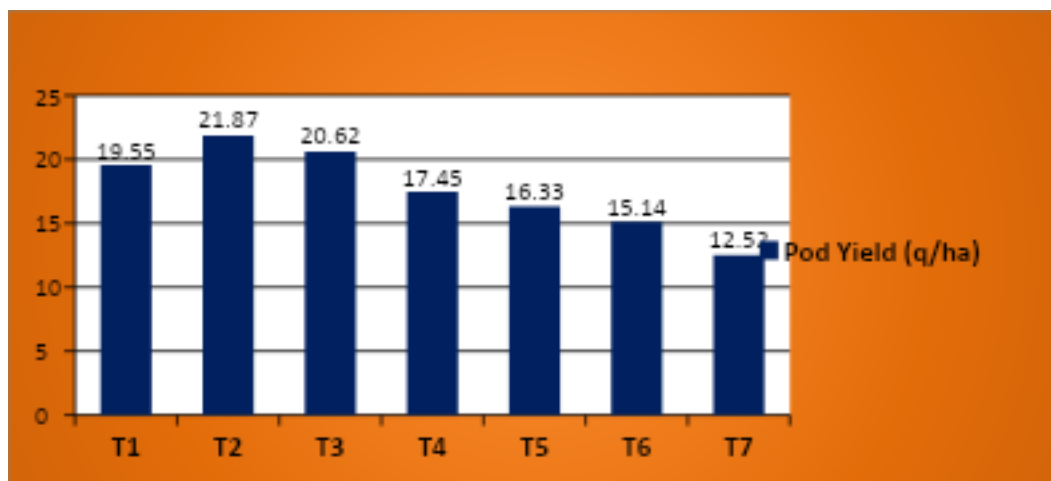


Results

The plant growth parameters *viz.*, plant height (100.6 cm), no. of branches per plant (8.8), pod length (10.6 cm) and pod girth (1.87 cm) were markedly influenced by treatment T2 i.e. application of P star @ 2 ml per liter water organic liquid nutrient in Dolichos bean.

This treatment also shows the higher value for yield parameters like no. of pods per cluster (8.7), pod weight (8.6 gm), no. of seeds per pod (8.4), pod yield per plant (573.5 kg) and pod yield (21.87 q/ha).

Graph



Conclusion

From the data it can be concluded that different levels of uptake stimulants showed variations in Dolichos bean growth & yield. From the data it is very clear that application of P star @ 2 ml per liter water organic liquid nutrient recorded higher Dolichos bean yield with variety bauni.