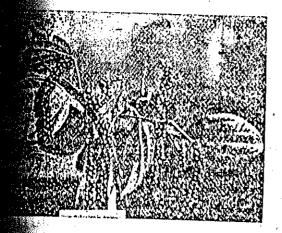
Panchamt





# PANCHAMI

**high** yielding selection **black** Pepper

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high yielding black pepper selections germplasm were compared for yield se alongwith cultivars Karimunda and i. Among these, Panchami (an Aimpirian) recorded the highest average yield of tram fresh pepper per vine at 5th outyielded all the other cultivars in the tested. Panchami has good yield characters like medium long spikes, antage of bisexual flowers in spikes, and sot. The black pepper from this variety per cent oleoresin. Due to its high yield Panchami was recommended for release growing tracts of Kerala and Southern

Black pepper (Piper olynum L.) is the most Important of the spices. India was the leading producer and exporter of this spice, about 55 per cent of it coming from Kerala alone. However, productivity of papper vines in India is the lowest in the world and yield levels have remained almost static for the lost fow decades. This is mainly because of poor genetic stock and prevelonce of a large number of old and unproductive vines. Non availability of disease free planting materials of high yielding varieties is one of the major constraints in increasing production and productivity of black pepper. Clonal selection from the vast genutic resources of black pepper computes the quickest method to identify high yielding the ganotype (s). Results from one such (experiment are presented in this paper.

### MATERIALS AND METHODS

Three lines of bleck pepper with promising yield attributes were selected from gorinplasm based on data collected from the collection surveys. These lines are viz., a colonien from Aimplriyan (ronamed as Panchaml), Ottaplackal-1 and Kuching (a ruling variety of Malaysia). The lines are compared with CV. Karimunda and Panniyur-1, two most popular varieties of Kerala. In this yield trial, popper vines are planted on 12 high Erythelian button standards at 2.5m x 2 5m spacing in a randomleed block design (RBD) with 12 replications. They are evaluated for five years and find actiontion was made based on their yield performance over the years as well as consistancy in performance:

Quality parameters like percentage of Piperine, Oleoresin and Essential oil were estimated based on standard ASTA methods (ASTA, 1968).

## RESULTS AND DISCUSSION

The vines standard yielding in the first year of planting. However, the yield for the first

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year is 1986-87, is gligible and hence not sad in the evaluation. Yield in for the next four years i.e. 387-1991 are given in Table 1. Panchami (Aimpiriyan Selection) gave significantly higher yields compared to all the other lines tested in all the other years. It has a mean yield of 5 2 kilogram fresh pepper per vine at 5th year.

The average yield of green papper per hoctore on well as yield potential of Panchami In comparison with Karimunda, and Panniyur-1 at 5th year estimated based on mean yield and maximum yield recorded respectively are given in Table 2. Pancham with an estimated average green pepper yield of 8,320 kilogram/hectare and yield potential of 19,200 kilogram/hectare is superior to all the other lines tested.

The quality attributes of Panchami are given in Table-3. Panchami gives medium quality black pepper with 4.7 per cent 12.5 per cent oleoresin and 3.4 per cent essential oil. It has a dry recovery of 34 percent: Thus the black pepper from Panchami is comparable to that of Karimunda and Panniyur-1 in quality.

Panchami has good yield attributing characters like medium long spikes (11.2 cm), high spiking intensity (77 spikes/100 nodes), high percentage of bisoxual flowers per spike (95.5 percent) high fruit set (82 percent) etc. This selection retains the important identifying character of five rowed arrangement of benies and the twisted nature

of the spikes due to very high fruit set. Panchami is a late maturing type, with fruits coming to harvest 7-8 months after flowering Like all other pepper cultivars, this is also susceptible to Phytophthora collar rot disease, pollu beetle and nematodes

Panchamis with high yield potential will significantly contribute to increase in black pupper production in the country and hence is recommended for release to the cultivators at the Group Meeting of Research workers of AICRP on Spices held in 1991 (Annonymous 1991)

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### REFERENCES

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PANCHAMI HAS GC YIELD ATTRIBUTE CHARACTERS LIKE

MEDIUM-LONG SPIR (11.2 cm)

HIGHSPIKING INT

(77 spikes/100 m)

HIGH PERCENTAGE BISEXUAL FLOWER (per spike 95.5 per

HIGH FRUIT SET (82 per cent)

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