

# Reaction of coconut cultivars of Andaman to grey leaf spot infection

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Coconut cultivation is the life line of Andaman and Nicobar Islands and the crop is cultivated in about 22,000 ha. of land<sup>2</sup>. The palms are affected by a number of diseases. Grey leaf spot caused by *Pestalotiopsis palmarum* is observed in majority of the cocount plantations of Andaman. The disease affects the seedlings in the nursery and adult palms in the plantations. The symptoms are seen as yellow spots encircled by greyish margins on the leaf surface. The centre of the spots later turns greyish white. Several such sopts coalesce in to irregular necrotic patches. In severe cases the infection causes complete drying and shrivelling of the leaf blade.

Screening of seedlings of local cultivars was undertaken for their reaction to *P. palmarum* under natural condition to find out their reaction to this pathogen at seedling stage. Thirteen local cultivars were selected. Ten seedlings (18 months old) were taken from each cultivar. The observations were taken at the maximum level of disease incidence under natural condition. Each seedling was assesed by grading minimum 36 leaflets representing all the leaves of seedling in a scale of 0-4 as shown below.

- 0 - Free from infection or nearly so.
- 1 - Trace to 25% leaflet area infected.
- 2 - 26 to 50% leaflet area infected.
- 3 - 51 to 75% leaflet area infected.
- 4 - 76 - 100% leaflet area infected.

The disease index was worked out for each variety as per the formula described by Horsfall and Heuberger (1942)<sup>1</sup>.

The results presented in Table 1 show that under natural condition, *Katchal* variety was more tolerant with a disease index of 2.00% whereas all the three dwarf varieties locally known as *King Coconut* had maximum disease (19.6 to 23.3).

Thus there appears to be difference in the susceptibility to grey blight among the local coconut cultivars. This might be useful in future programmes of breeding for disease resistance.

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## REFERENCES

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TABLE—1

Reaction of local coconut cultivars to grey leaf spot infection under field condition

Variety	Disease index (in percentage)
1. Andaman Ordinary	16.3
2. Andaman/Port Blair Tall	13.3
3. Andaman Giant	6.2
4. Tamaloo	6.7
5. Kinmai	9.6
6. Campbell Bay	18.5
7. Kimmios	11.7
8. Katchal	2.0
9. Auck chung	5.9
10. King coconut (green)	23.3
11. King coconut (yellow)	19.6
12. King coconut (orange)	22.5
13. Laccadive Micro	18.8