A Virescent-White Mutation in Rice.

IN the early strain of Kolamba, K 79, a seedling with white leaves was discovered last season. As the seedling displayed unique appearance it was potted off and reared carefully. Periodic examination of the growth of the seedling showed that the new leaves were invariably devoid of chlorophyll presenting whitish appearance, but very gradually changing to greenish colour, the colour developing from tip downward. The seedling was normal in fertility.

During the current season about 400 seedlings of the white mutant were raised and all of them were like the original plant. In due course a number of seedlings of the mutant and the normal parent strain were transplanted in the field for agronomic comparison. The results are as below:

Character	Mean No. of days to flower from sowing	Mean height of plants cm.
K 79 ..	90·96±0·30	118·58±1·28
Mutant ..	95·66±0·62	82·25±2·90

Character	Mean Panicle length cm.	No. of tillers	Mean yield per plant gm.
K 79 ..	28·75±0·32	5·83±0·18	19·04±0·76
Mutant ..	19·46±0·78	2·50±0·25	2·51±0·34

[2] Clements and Shear, *The Genera of Fungi*, New York, 1931.

It will be seen that the virescent-white plants are inferior to K 79 in panicle length, height, number of tillers and in yield, although they are late by about five days. The differences in all cases are highly significant. The slow growth of the virescent-white plants is due to very slow rate of chlorophyll formation. Colourmetric readings show that the mutant plants have about 66 per cent. chlorophyll compared to K 79.

The writer is not aware of any previous report of this type of chlorophyll mutation in rice, although albino, yellow and striped chlorophyll mutations have been reported.

The new type has been crossed with the parent K 79 to determine the mode of inheritance.

B. S. KADAM.

Rice Breeding Station,
Karjat, Kolaba,
November 1934.