A STUDY ON THE OCCURRENCE AND COMPARISION OF TRICHOMES IN SELECTED WILD RICE SPECIES AND HYBRID RICE VARIETIES IN SRI LANKA.

A PROJECT REPORT PRESENTED BY

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A study on trichome diversity of selected wild rice species and few hybrid rice varieties (family- Poaceae) was carried out in order to investigate the morphological diversity of trichomes and to relate their occurrence for their performance in disease resistance and other characters. Study was carried out with 3 wild rice species and 3 hybrid rice varieties.

Plant specimens were collected from the field and fresh specimens were studied in the laboratory. Free hand sections were stained with safranin and were studied in detail under the light microscope.

46 different types of trichomes were observed during the study. These trichomes show a distinct variation among the wild rice species and hybrid rice varieties. Some types showed restricted distribution while others were occurring in all species. According to the results of the present study it is apparent that trichome diversity and density is higher in wild rice species than the cultivated rice varieties. The highest trichome diversity was observed in *Oryza eichingeri,* while the lowest diversity in Bg 357. Therefore, this high diversity and density in trichomes may contribute to the natural defense mechanism in wild rice species and their tolerance in adverse conditions.