作物学报 1994 20 (1): 106-113 ISSN: 0496-3490 CN: 11-1809/S

研究论文

高粱叶片及其它营养器官细胞形态的初步观察

李雁鸣,郑丕尧,王瑞舫

北京农业大学，作物栽培生态生理研究室，北京，100094

收稿日期 1991-2-20 修回日期 1992-3-24 网络版发布日期 接受日期

摘要 运用细胞离析法对高粱两个品种各叶位叶片细胞形态的观察表明，随叶位升高，三环以上的多环细胞所占的比例有增加趋势，但中部叶位的略有下降。叶肉细胞随叶位升高逐渐变小，但品种间叶肉细胞高度的变化趋势却有不同。冀杂6号叶片表皮气孔密度随叶位升高而增加，而y2203的却差异不大。高粱叶鞘薄壁细胞的形态与叶片细胞的显著不同。对高粱叶片和其他营养器官细胞形态变化的生态生理意义进行了讨论。

关键词 高粱,叶肉细胞,气孔密度

分类号

Preliminary Observation on the Cell Morphology of Leaf Blades and Other Vegetative Organs in Sorghum

Li Yan-ming, Zheng Pi-yao, Wang Rui-fang

Laboratory of Eco-physiology of Crop Cultivation, Beijing Agricultural University, Beijing,100094

Abstract By means of cell separation, the cell morphology of leaf blades and other vegetative organs of a Chinese grain sorghum (Sorghum bicolor (L.) Moench. ecotype Kaoliang) hybrid “Ji Za No.6”, and an Indian sorghum (S.b.ecotype Shallu) variety “y2203”, were studied. The main results showed that the percentage of mesophyll cells with three or more links increased with leaf position from bottom to top on the main stem except a slight decrease at the middle leaf positions. The size of mesophyll cells became smaller with leaf position, but the tendency of the changes of the height of mesophyll cells was slightly different between the two varieties. The stomatal density on the epidermis of leaf blades increased with leaf positions in Ji Za No.6, but little differences in stomatal density were observed among leaf positions in y2203. The cells of the leaf sheath differed greatly from those of the leaf blade in their morphology.

Key words Sorghum(Sorghum bicolor (L.) moench.) Mesophyll cells stomatal density

DOI:

通讯作者 李雁鸣