POLLEN VIABILITY STUDIES IN PSOPHOCARPUS TETRAGONOLOBUS (L.) DC

KOSHY E. P¹, ALEX B. K² & JOHN P³

¹Department of Tissue Engineering, Jacob School of Biotechnology and Bioengineering, Sam Higginbottom Institute of Agriculture, Technology and Sciences, Allahabad, Uttar Pradesh, India

²Department of Molecular and Cellular Engineering, JSBB, SHIATS, Allahabad, Uttar Pradesh, India

³Department of Science, Walthamstow Science Academy, Walthamstow, London, England

ABSTRACT

Psophocarpus tetragonolobus(L.) Dc. (Winged bean) has immense agricultural possibilities as a potential backyard crop. An outstanding feature of this plant is that, it contains significant amount of protein in all the parts of the plant. Pollen viability studies was conducted using Cotton blue staining and Fluorochromatic Reaction test. The studies showed that maximum viability of the pollen was before the flower opened and lasted for one day. There was good pollen tube growth in the stylar canal and it penetrated the embryo sac successfully.

KEYWORDS: Cotton Blue Staining, Fluorochromatic Reaction Test, Pollen Viability, Winged Bean