

**VARIATION IN THE PROTEIN LEVEL OF DIFFERENT  
ACCESSIONS OF PIGEON PEA (*Cajanus cajan* L. Millspaugh)**

**OLAIYA, Aderonke Eunice.**

**BTH/11/0257**

***A FINAL YEAR PROJECT SUBMITTED TO THE DEPARTMENT OF PLANT  
SCIENCE AND BIOTECHNOLOGY, FACULTY OF SCIENCE. IN PARTIAL  
FULFILLMENT OF THE REQUIREMENTS FOR THE AWARD BACHELOR OF  
SCIENCE (B.Sc) DEGREE IN PLANT SCIENCE AND BIOTECHNOLOGY. FEDERAL  
UNIVERSITY OYE EKITI, EKITI STATE.***

**Dr. J. O. Agbolade**

Supervisor

**ABSTRACT**

Ten accessions of Pigeon pea (*Cajanus cajan*) obtained from National Centre for Genetic Resources and Biotechnology (NACGRAB), Ibadan, Oyo state, were assessed for their genetic and phylogenic relatedness through electrophoretic analysis of the seed proteins. 0.2g of the seeds were weighed and macerated with mortar and pestle in 0.2M phosphate buffer containing 0.133M of acid (NaH<sub>2</sub>PO<sub>4</sub>) and 0.067 of base (Na<sub>2</sub>HPO<sub>4</sub>) at Ph 6.5. Protein characterization with standard marker revealed that the seeds of the 10 accessions contained proteins (B.S.A, Oval Albumin, Pepsinogen, Trypsinogen and Lysozyme) with molecular weights ranging from 66 and above kda, 45 – 65 kda, 44 – 33 kda, 32-24 kda and 23-14 kda respectively. All the accessions had at least two proteins and two major bands in common. The study revealed intraspecific similarities and genetic diversity in protein contents among the ten accessions of pigeon pea (*Cajanus cajan*).