

Effects of Storage Pesticides on Quality Protein Maize (QPM) Seeds Stored in Humid Tropical Environments

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Abstract

An experiment to study the efficacy of some pesticides on the control of storage insect pest of Quality Protein Maize (QPM) was conducted in three sub stations of Institute of Agricultural Research and Training (IAR&T), Moor Plantation, Ibadan, Nigeria. The study also evaluated tolerance level of QPM varieties to storage insect pest under ambient condition and resultant effect of the pesticides on seed viability, Five QPM varieties developed at IAR&T. (ART -98-SW3-OB, ART-98-SW4-OB, ART- 98-SW6-OB, TZPB-SR-OB and ILE-1) and two widely grown and adapted improved non-QPM maize varieties (TZPB-SR .. Wand SUWAN 1SR) developed by International Institute of Tropical Agriculture (IITA) Ibadan, were treated with three seed storage chemicals (*Aluminum phosphide* (FitscophosTM) (T1), *Pirimiphos methyl* (Atellic25ECTM) (T2) and *Thiamethoxaml Metalaxyl Difenonagole* (Apron starTM) (T3) at manufacturers recommended dosage and stored for six months. The seeds were evaluated for viability, insect population and seed quality appearance at the end of six months. Quality Protein Maize varieties show general vulnerability to storage pest attack although one of the QPMs possesses quality parameters that can be used to improve storability potentials of the others. It was recommended that Chemicals that have direct contact with seed coat should be avoided for enhanced seed viability.

Keywords: *Insect Pest, Quality protein maize, Storage Chemical, Viability*
