Abstract

Three hundred twenty nine samples from different parts of Kenya which had not previously been treated with bio-pesticide were collected for Bacillus thuringiensis isolation. The δ-endotoxin crystals were isolated from nutrient broth culture by medium speed centrifugation. From the colony samples examined, 77.1% (236) were non crystal forming Bacillus, 16% (49) Bacillus thuringiensis and 6.9% (21) Bacillus sphaericus. The B. thuringiensis isolates were evaluated for insecticidal activity against Prostephanus truncatus and Sitophilus zeamais using artificial seeds incorporating spore – crystal toxins at the rate of 4% w/w. Twenty five unsexed 2-week-old P. truncates and S. zeamais adults were separately fed for 14 days with ten seedsof each isolate contained in ventilated glass tubes. Seeds prepared with sterile distilled water only served as controls. None of the isolates showed satisfactory control of the two coleopteran species. The results demonstrate minimal prospects of finding more potent Bacillus thuringiensis from local sources.