

Project Title : Investigations on Species of the Bruchidae Family and Their Damage to Stored Legume Seeds in Denizli and Uşak Provinces

Start /End Date : 2001-2007

Supporting Body : GDAR

Leader : Dilek TURANLI

Co-researchers : Prof. Dr. Şeniz KISMALI

Summary : In this study, the presence of some species of the Bruchidae family, the effects of those species to the quality and quantity of the seeds, and the storage conditions were investigated in dried legume seeds taken from farmers' stores in both Denizli and Uşak Provinces. The study was carried out in 17 villages of 9 different towns of Denizli Province and in 23 villages of 6 different towns of Uşak Province, between the years 2001 and 2002. Adults obtained from the damaged seeds were identified to belong to species of *Callosobruchus masculatus* (Fabricius), *Acanthoscelides obtectus* (Say) and *Bruchus emargiantus* Allard. It was determined that the average number of adults in both Denizli and Uşak samples was highest in chickpea and bean samples. Numbers of adults were 7984 in chickpea and 5586 in bean samples in Uşak Province, while they were 3753 in chickpea and 2435 in bean samples in Denizli Province. Average weight losses (%) in chickpea and bean samples were higher than in other legume samples (33.85 % in chickpea, and 12.98 % in bean in Denizli Province and 46.61 % in chickpea and 35.97 % in bean in Uşak Province). Average Infestation levels (%) were 97 % in chickpea and 77.33 % in bean (both from Uşak Province), and 50.05 % in chickpea and 34.57 in bean (both from Denizli Province). Average weight loss (%) in farmers' stores was highest in bean from Denizli Province (4.92 %) and in bean from Uşak (26.8 %). Infested samples of vetch, lentil and white pea had the highest germination percentage.