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9. ANTIXENOSIS EVALUATION IN BEAN GERMOPLASM (*Phaseolus vulgaris* L.) AGAINST *Bemisia tabaci* Gennadius

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One of the main limitations to bean yields is the whitefly *Bemisia tabaci*. It is an important worldwide pest that causes direct and indirect damages leading to yield decrease in crops. The objective was to evaluate antixenosis by the analysis of attraction and oviposition preference of *Bemisia tabaci*, biotype A, in seven bean cultivars, using free choice tests. The following parameters were measured: number of adults on the abaxial leaf surface; number of eggs/leaf; number of eggs/cm²; the attraction index (AI) and the oviposition preference index (OPI) were calculated. Genotypes Light Red Kidney and Gateado had the highest number of eggs/leaf. Both cultivars and Alubia, the susceptible control, showed the greatest values for number of eggs/cm² and OPI. On the other hand, AI was highest for Light Red Kidney, Gateado and Alubia. This last genotype showed the highest values for both AI and OPI indexes. We may conclude that Borlotti Bush, Borlotti Clio, Borlotti Lengua de Fuego and Cannellini were the most resistant cultivars to *B. tabaci* while Alubia, Light Red Kidney and Gateado expressed greatest susceptibility to the insect.

10. FALL ARMYWORM STRAINS (LEPIDOPTERA: NOCTUIDAE) IN ARGENTINA. RESPONSE TO DIFFERENT MORTALITY FACTORS

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The fall armyworm (FAW) is a polyphagous pest that causes important damage in different regions of the American continent. There are at least two morphologically identical FAW host strains. The rice strain is associated with rice and bermudagrass, while the corn strain predominates on corn, sorghum and cotton. The purpose of this work was to identify FAW host strains in Argentina and to determine their response to different mortality factors. Bioassays were conducted by using pesticides (chlorpyrifos and cypermethrin), transgenic corns (Cry 1Ab and Cry 1F) or an indigenous *Bacillus thuringiensis* strain (RT 3). Strain specificity was determined by the presence of diagnostic mitochondrial markers. Mean survival time data were analyzed by using NTSYS program (SM coefficient and UPGMA). Four rice and eleven corn strain populations were found in Argentina. The numerical analysis clearly revealed two major clusters at a similarity level of 54%. Cluster A comprised seven FAW populations, all of these identified as corn strain, while cluster B included both rice (4) and corn (4) FAW strains.

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11. FAUNAL ANALYSIS OF PARASITIDS ATTACKING AGROECOSYSTEM SOYBEAN PESTS IN TUCUMÁN

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The analysis of the biodiversity of natural enemies that attack soybean agroecosystem pest species in Tucumán is focused on parasites because of their role as efficient insect pest controllers. The objective of this work was to perform a faunal analysis of hymenoptera and diptera parasites associated with the crop and surrounding weeds. During the soybean harvest campaign (2005-2006) weekly samplings were conducted in three commercial batches: INTA (Leales Department), Tala Pozo and road to Cañete (Burruyacu Department). Sampling was conducted on each batch in three transects. In addition to the systematic analysis, the rates of occurrence and dominance were considered. Twenty-four families of parasitoids, 20 of which belonged to Hymenoptera and four to Diptera, were recorded. Thirty-six genera and eight species, most of them belonging to the Braconidae family, were recorded. The highest indices were obtained for Encyrtidae (Hym.), with dominance values of 66.18%; 46.22%; 67.43% and occurrence of 18.75%; 48.68%; 48.61% and for Phoridae (Dip), with 18.49%; 16.37%; 30.56% and 38.75% dominance and 52.63%; 30.56% occurrence. The main parasite due to its occurrence and dominance was *Copidosoma floridanum* (Ashmead) (Hym.), Encyrtidae, probably because of its polyembryonic status.

12. EVALUATION OF SOWING MODALITIES AND EFFECT OF FERTILIZATION WITH LOMBRICOMPOST ON RADISH (*Raphanus sativus* L.) PRODUCTION

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Field practices influence the growth and development of crops. Objective: to evaluate sowing modalities and effect of fertilization with lombricompost (LC) on radish crops. The assay was carried out in fields belonging to the Chair of Horticulture of the Faculty of Agronomy and Zoo techniques (FAZ), UNT. An experimental design with random blocks was used with six treatments (3 combined sowing modalities with and without fertilization) and three repetitions. The cv. round rosy or red with white tip type was sown. The treatments were: T1=broadcast sowing of 25 kg.ha⁻¹-without LC; T2 = broadcast sowing of 25 kg.ha⁻¹-with LC; T3=sowing in 3 lines 20 cm apart from each other and density of 25 kg.ha⁻¹-without LC; T4=sowing in 3 lines 20 cm apart and density of 25 kg.ha⁻¹-with LC; T5=sowing in 4 lines 15 cm apart and density of 33 kg.ha⁻¹-without LC; T6=sowing in 4 lines 15 cm apart and density of 33 kg.ha⁻¹-with LC. Three dm³ of fertilized LC per lot was used. Two samplings of plants were carried out and evaluated: root, foliate and total fresh and dry weight; root and foliate length, plant size and mean root diameter. Data were analyzed with R and InfoStat software. The results showed a higher accumulation of dry matter in roots and aerial parts of the crops and an increase in the average root diameter in T2 (8.48) and T4 (9.48) with lombricompost, sowing in 4 lines being the least productive. Sowing modalities and fertilization affect radish yields.