[1] EEA INTA Anguil and Facultad de Agronomía, Universidad Nacional de La Pampa, 6300, Santa Rosa, Argentina.
[2] Departamento de Agronomía, Universidad Nacional del Sur, 8000 Bahia Blanca, Argentina

The physical properties of coarse – textured soils in semiarid regions often deteriorate with use. We hypotetised that the changes in the physical properties of the soil were related to the cropping sistememployed. Surface sampled of 52 Entic Haplustolls under three diferents uses (24 under continuous cultivation), 18 under rotation wuth grass leys (R), and 10 virgin soils (V) were analyzed for clay, silt, organic matter anrd water content , bulk density, compaction and aggregate stability. Data were analyzed statistically using principal components, canonical variables, and discriminant functions. A satisfactory segregation of the soils according to discriminant propierties (coarse organic matter, aggrgate stability, and suceptibility to compaction) was obtained. The model developed satisfactory classified the soils under different uses (100% R, 83 % C, and 88% V).

Principal component analysis also sowed that bulck density, compaction, and wet aggegate stability are related to organic matter content. We conclude that, in the studied region, the lower the ratio of organic matter to clay + soil content, the more severe the physical deterioration of the soils.

Key wods: Soil physical properties, discriminant analysis, semiarid soils, soil management.

Variaciones de los espectros polínicos de miel y carga corbicular en un colmenar de Santa Rosa- La Pampa

Presentado en VII Jornadas Pampeanas de Ciencias Naturales, 1-3 de diciembre de 1999. Santa Rosa. La Pampa: 253-260.

Naab O.A.[1] y M. del C TORROBA[1]

[1] Facultad de Agronomía. Universidad Nacional de La Pampa. CC 300, 6300, Santa Rosa, La Pampa.

In order to study the behavior between the hives in one apiary, the pollen spectra of pollen basket and honey samples were analysed. The samples were taken at the same time from five similar hives during 2 months. A total of 30 pollen types were identified, 5 of them were found exclusively in pollen basket samples, 11 taxa in honey samples and 14 pollen types were common in both. At both activities the colonies showed high selectivity and the bees preferred a few species called primary source (percentage higher than 10). The taxonomic richness, higher in honey than in pollen basket, was due to pollution from different airborne pollen grains. The high values of correlation between pollen spectra of corbiculaes and honeys, removed at the same time from different hives, suggest a similar behavior in the exploitation of vegetable resource. This uniformity shows that a few colonies may be used to provide a good representation of both activities in the whole apiary.