

DISTRIBUTION AND ABUNDANCE OF *EXITIANUS OBSCURINERVIS*, POSSIBLE VECTOR OF *SPIROPLASMA KUNKELII* IN MAIZE CROPS IN THE TEMPERATE ZONE OF ARGENTINA

Eduardo M. Bisonard¹; Susana Paradell²; Irma G. Laguna¹; Ines Catalano²; Eduardo J. Ruiz Posse³; Edgardo J. Carloni¹; María de la Paz Giménez Pecci¹

(1):INTA-IFFIVE, Camino 60 cuadras Km 5 ½, X5020ICA, Córdoba, Argentina.
mpazg@correo.inta.gov.ar, tatybisonard@hotmail.com.

(2): Fac Cs Naturales y Museo, UNLP, Paseo del Bosque s/Nº, (B1900FWA) La Plata, Argentina.

(3): Fac. Cs. Agropecuarias, UNC, Avenida Valparaíso s/n, Ciudad Universitaria, Córdoba, Argentina.

Spiroplasma kunkelii is the main causal agent of “corn stunt”, an important disease of maize crops, exclusively transmitted by members of the Cicadellidae family, with *Dalbulus maidis* being the most efficient and so far the only one reported in Argentina. In North America, members of *Exitianus* genus act as field transmitters of *S. Kunkelii*. The aim of this study is to determine the distribution and abundance of *E. obscurinervis* in the temperate zone in Argentina, the largest corn production area in the country, and relate it to the presence of *S. kunkelii*. Systematic samplings were conducted during the period from the 2002/03 to 2008/09 crop years in the Argentine central farming area. These consisted of 50 sweeps of an entomological net, on maize, surrounding wild grasses and winter cereals. The diagnosis was made by DAS-ELISA in R3-R4 crops. In the horticultural belt around Córdoba city, the presence of *E. obscurinervis* was registered throughout the year, including during the crop susceptibility period between September and January. The maximum abundance during this period in all the crop years was 1 individual/sampling, except in 2007/08 when the maximum was 0.5 individuals/sampling. On the other hand, *D.maidis* populations were detected when the crop had escaped the susceptible period. Therefore, the high incidence of disease during 2003/04 (48%), with *D. maidis* absent during the susceptible crop period, might be explained by the presence of *E. obscurinervis* rather than that of *D. maidis*. In the temperate zone of Argentina, the presence of *E. obscurinervis* during the susceptible period as well as *S. kunkelii*, was detected as far as Saladillo (35.63° south latitude) but the presence of *D. maidis* during this period was only recorded as far as Suardi (30.53° south latitude). These results suggest that *E. obscurinervis*, or another member of the Cicadellidae family, might be playing an important role in *S. kunkelii* epidemiology, in the temperate area of Argentina .

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