

Figure 4. Evolution of soil Bray P-1 of the NPS and NS treatments averages of all sites, of the C-W/S (red lines) and C-S-W/S (blue lines) rotations from 2000 to 2006. Nutrition network of CREA Southern Santa Fe.

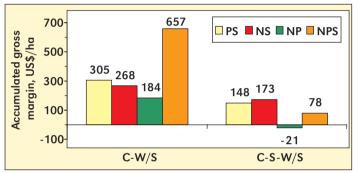


Figure 5. Accumulated gross margin of selected treatments in the 6 years of experimentation for the C-W/S and C-S-W/S rotations. Nutrition network of CREA Southern Santa Fe.

fertilizer and P removed in grains in both rotations (**Figure**) 4). Soil Bray P-1 tended to decrease in the NS treatments by 0.05 to 1.5 ppm per year.

Comparison of SOC concentrations between the check and NPS treatments showed an average increase of 3.4 g C/kg soil after four seasons. However, these changes in SOC were highly variable among sites, from -5.2 to +10.3 g C/kg soil. Fertilization with NPS generally tended to decrease soil pH, -0.4 to +0.1 units depending on the site. No significant differences in cation and micronutrient concentrations were observed between the check and NPS treatments.

Economical analysis of the first 6 years of the network shows that NPS fertilization at P and S rates equivalent to grain nutrient removal plus 10%, and highly responsive rates for N, could be profitable under the conditions of the CREA Region of Southern Santa Fe. Figure 5 shows that the accumulated gross margin for the 6 years of C-W/S rotation was higher than the C-S-W/S rotation. This could be attributed to the lower soil Bray P-1 levels of the C-W/S sites, and increased crop P demand due to the more frequent appearance of corn and wheat in the rotation. BC

IPNI Project # ARG-12

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References

Blanco, H., et al. 2004a. Informaciones Agronomicas 23:9-14.

Blanco, H., et al. 2004b. In Simposio "Fertilidad 2004" pp. 61-67. INPOFOS Cono Sur. Acassuso, Buenos Aires, Argentina.

Boxler, M., et al. 2006. Abstracts and Actas CD XX Congreso Argentino de la Ciencia del Suelo. AACS. Salta-Jujuy, 19-22 Septiembre 2006. pp. 279.

García, F.O., et al. 2005a. Actas VIII Congreso Nacional de Maíz. AIANBA-Maizar, Rosario, 16-18 Noviembre 2005, pp. 154-157.

García, F.O., et al. 2005b. Abstracts VII International Wheat Conference. SAG-PyA-INTA. Mar del Plata, 27 Nov-2 Dic 2005. pp. 186.

García, F.O., et al. 2006a. Proceedings CD XVIII World Congress of Soil Science. IUSS. Filadelfia, EE.UU. Julio 2006.

García, F.O., et al. 2006b. AACREA. 32 pp. ISBN 987-22576-7-1.

Thomas, A., et al. 2002. Better Crops International 16 (2): 6-9.

Thomas, A., et al. 2003. Agronomy Abstracts (CD). ASA-CSSA-SSSA. Madison, Wisconsin, EEUU.

Acknowledgments

We greatly acknowledge the help and collaboration of all the farmers and farm's staff who may possible this study, and the support of Agroservicios Pampeanos (ASP) since 2000.

International Plant Nutrition Institute Announces the "IPNI Science Award"

PNI President Dr. Terry L. Roberts recently announced a new program to recognize outstanding achievement in the field of plant nutrition.

"The IPNI Science Award is to be presented each year to one agronomic scientist. Private or public sector agronomists, crop scientists, and soil scientists from all countries are eligible for nomination," Dr. Roberts explained.

The recipient will receive a plague and a monetary award of US\$5,000 (five thousand dollars). The award recognizes outstanding achievements in research, extension, or education which focus on efficient and effective management of plant nutrients and their positive interaction in fully integrated crop production that enhance yield potential. The purpose of the award is to acknowledge and promote distinguished contributions by scientists involved with ecological crop intensification where productivity is increased and the environment is improved.

For 2007, nominations for the IPNI Science Award must be received by September 30; winner of the award will be announced December 31. To learn more about this program and to obtain a nomination form, visit the IPNI website at >www. ipni.net/awards<. 🔣