

NPS deficiencies in most of the fields under annual cropping in the Pampas.

The differences in P balances among the Check, NPSs, and NPSr treatments might explain the differences on soil Bray-1 P (0 to 18 cm) determined on August 2004 at Los Chañaritos (**Table 3**). No major differences among these treatments were observed for soil organic matter and pH. Soil organic matter was slightly higher for NPSs than for the Check or NPSr. Soil pH tended to decrease as fertilizer rates increased for NPSs and NPSr, compared to the Check.

In summary, NPS applications at grain removal rates resulted in high crop yields while maintaining or improving soil nutrient balances and, thus, soil fertility conditions. Further evaluations of specific soil properties and a longer evaluation period are needed to confirm the conclusions of the first 10 years of these on-farm demonstrations. On-farm testing would contribute to a more rapid and widespread adoption of crop and soil nutrient management guidelines developed at research centers. **BC**

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From left, Dr. García and Dr. Paul Fixen of IPNI are shown with Mr. Gudelj, Mr. Ghio, and Mr. Boll at the corn demonstration at Don Osvaldo.



Wheat at Los Chañaritos 2007/08; check plot at the left and NPSr at right.

Conversion Factors for U.S. System and Metric Units

Because of the diverse readership of *Better Crops with Plant Food*, units of measure are given in U.S. system standards in some articles and in metric units in others...depending on the method commonly used in the region where the information originates. For example, an article reporting on corn yields in Illinois would use units of pounds per acre (lb/A) for fertilizer rates and bushels (bu) for yields; an article on rice production in Southeast Asia would use kilograms (kg), hectares (ha), and other metric units.

Several factors are available to quickly convert units from either system to units more familiar to individual readers. Following are some examples which will be useful in relation to various articles in this issue of *Better Crops with Plant Food*.

To convert Col. 1 into Col. 2, multiply by:	Column 1	Column 2	To convert Col. 2 into Col. 1, multiply by:
Length			
0.621	kilometer, km	mile, mi	1.609
1.094	meter, m	yard, yd	0.914
0.394	centimeter, cm	inch, in.	2.54
Area			
2.471	hectare, ha	acre, A	0.405
Volume			
1.057	liter, L	quart (liquid), qt	0.946
Mass			
1.102	tonne ¹ (metric, 1,000 kg)	short ton (U.S. 2,000 lb)	0.9072
0.035	gram, g	ounce	28.35
Yield or Rate			
0.446	tonne/ha	ton/A	2.242
0.891	kg/ha	lb/A	1.12
0.159	kg/ha	bu/A, corn (grain)	62.7
0.149	kg/ha	bu/A, wheat or soybeans	67.2

¹The spelling as "tonne" indicates metric ton (1,000 kg). Spelling as "ton" indicates the U.S. short ton (2,000 lb). When used as a unit of measure, tonne or ton may be abbreviated, as in 9 t/ha. A metric expression assumes t=tonne; a U.S. expression assumes t=ton.