

Table S1. Chemical reaction and nutrient content (%) of chemical fertilizers applied into the soils.

Fertilizer Source	pH	%N	%P ₂ O ₅	%K ₂ O
Nitrophos (NP)	3.5	22	20	-
Nitrophos Plus (NP Plus)	7.3	18	18	-
Di-Ammonium Phosphate (DAP)	7.5-8.0	18	46	-
Calcium Ammonium Nitrate (CAN)	7.0	26	-	-
Urea	7.5	46	-	-
Sulphate of Potash (SOP)	4.5	-	-	50

Table S2. Highest maize grain yield obtained during [1] and 2020–2021 by the use of NP and CAN fertilizers.

Sr. #	Farmer	Address and GPS coordinates	Crop	Yield (kg acre ⁻¹)	Reference
1	Faisal Ali	45/12L Chichawatni, Sahiwal, Punjab 30° 30' 36" N, 72° 42' 35.9994" E	Autumn Maize	3640	Unpublished (2018)
2	Maize & Millet Research Institute	Chak# 65/5L MMRI Yousafwala, Sahiwal, Punjab 30° 40' 47.9994" N, 73° 12' 0" E	Autumn Maize	3600	Unpublished (2018)
3	Anwar Ali	45/12L Chichawatni, Sahiwal, Punjab 30° 28' 48" N, 72° 40' 48" E	Autumn Maize	2640	Unpublished (2020)
4	Muhammad Ashfaq	Chak No.141/9L Sahiwal 30° 31' 11.9994" N, 72° 57' 35.9994" E	Autumn Maize	2600	Unpublished (2020)

5	Rehan Latif	45/12L Chichawatni, Sahiwal, Punjab 30° 28' 48" N, 72° 40' 48" E	Autumn Maize	2600	Unpublished (2020)
6	Abdul Shakoor	ChakSadhay Khan NurPurPakpattan, Sahiwal 30° 29'23.9994" N, 73° 18'36" E	Autumn Maize	2560	Unpublished (2020)
7	Mian Abdul Malik	AddaChanwat Tehsil &dist.Pakpattan 30° 23' 35.9994" N, 73° 19' 47.9994" E	Autumn Maize	2360	Unpublished (2020)

Source: 1) Technical Services Department, Marketing Division, Fatima Fertilizer Company (Pvt.) Ltd.

2) Agriculture Department, Govt. of the Punjab, Pakistan.

Reference

1. *Maize Yield Competition*; Government of the Punjab Commissioner's Office Sahiwal: Punjab, Pakistan, 2018.