

**Supplementary Table: 1 Mean yield (kg/ha) of advance breeding lines in preliminary yield trials conducted in multi environments across Pakistan**

Trial	Advance Lines	Mean Yield (kg/hectare)	Environments
I	CH19/07, 11030, D-10008, NIFA-3, Pb-2008, SL-05-64, CH49/09, D-09027, CH28/07, 09AG006, TG-1221, 12011, DCD, CH40/09, TG×228, TG×220, CH17/08, CH10/08, CH39/08, D-0039, CM1026/09, Bittle-16, <i>NIFA-1</i> , NIFA-2, AZC, TG-1218	2587, 2586, 2617, 2187, 2717, 2236, 2717, 2493, 2676, 2636, 2543, 2475, 2728, 2817, 2435, 2362, 2616, 2512, 2752, 2480, 2612, 2710, 1581, 2066, 2048, 2540	Faisalabad, Karak, Bhakkar, Kallur Kot (Pb), Islamabad (Fed), Peshawar, D.I.Khan (KPK), Larkana (Sindh)
II	D-13011, D-13012, D-13029, D-13030, D-13031, D-13036, D-14005, D-14008, D-14013, D-14014, BRC-424, BRC-457, TG-1306, CH19/10, CH35/10, CH32/10, CM1036/09, <i>CM584/09</i> , Pb.2008, Bittal 2016	2131, 2241, 2073, 1764, 1894, 2248, 2181, 2048, 1952, 1928, 1972, 2173, 2067, 1923, 1992, 2075, 1898, 1881, 2073, 2112	Faisalabad, Kallur Kot, Karor, Rakh-uttra, Bhakkar, Bahawalpur (Pb)
III	<i>QG-4</i> , TG12K-07, CH55/09, <i>QG-3</i> , K-1209, CH77/08, CH61/09, <i>DG-2017</i> , K-01216, K-01211, <i>QG-1</i> , Noor 2013, CH74/08, <i>TG12K-01</i> , K002-10, BKK2174, CH56/09, CH72/08, CH76/08	1613, 2173, 2250, 1663, 2126, 2137, 2207, 1562, 2275, 2224, 1549, 2038, 2189, 1912, 2259, 2161, 2209, 2165, 2146	Faisalabad, Bhakkar, Chakwal, Kallur Kot (Pb), Islamabad (Fed), Karak DI Khan (KPK), Tando Jam, Larkana (Sindh)
IV	<i>K-01241</i> , <i>K-01308</i> , <i>K-01242</i> , <i>K-01248</i> , <i>K-1221</i> , <i>K-01302</i> , <i>K-01250</i> , <i>CM877/10</i> , <i>CM616/10</i> , <i>K-01219</i> , <i>K-01240</i> , <i>K-01338</i> , Noor-2013, <i>TG12K05</i> , <i>TG12K01</i> , <i>CM545/10</i> , <i>TG12K10</i> , <i>TG12K02</i>	1660, 1636, 1567, 1566, 1551, 1539, 1534, 1512, 1491, 1489, 1461, 1438, 1390, 1351, 1320, 1316, 1209, 1048	Faisalabad, Kallur Kot, Rakhuttra, Bhakkar, Bahawalpur, Chakwal, Fateh Jang

Sequence of genotypes and means are in order from Left to Right. Commercial varieties are shown in bold. Low Yielding are shown in Italics.