2014 WSU Variety Testing Hard Winter Wheat Trial, Moses Lake

5 YEAR 3 YEAR 2 YEAR PLANT LODGING SPRING AVERAGE AVERAGE **AVERAGE YIELD TEST WT PROTEIN** Variety Name Hard White Italicized (BU/A) HT (%)STAND* (BU/A) (BU/A) (BU/A) (LBS/BU) (%) WB-Rimrock 143 39 9 185 63.3 11.1 38 23 9 Keldin 146 181 63.5 11.6 WB-Arrowhead 41 0 9 151 177 63.1 11.8 42 0 DAS₁ 142 172 63.0 12.3 9 OR2100061H 168 10.9 38 0 7 61.5 0 NSA10-7208 165 61.4 12.2 36 IDO1101 132 0 164 63.3 11.8 36 9 0 38 6 Whetstone 141 164 63.5 13.0 0 **WA 8186** 129 159 61.2 11.6 40 8 WA 8184 139 159 61.9 11.9 39 0 6 LCS Evina 158 62.0 13.6 42 0 8 33 0 4 LCS Allezy 158 59.0 11.8 10 142 132 137 40 9 **Boundary** 155 62.1 11.8 0 WA 8209 153 61.6 12.5 38 8 12.9 DAS 2 132 152 63.3 42 0 8 0 130 LCS-Azimut 132 151 57.1 11.6 31 8 (SWW Check) Eltan 149 60.2 42 50 8 112 11.8 0 **WA 8210** 148 60.8 11.6 39 Genesis 134 132 146 62.0 11.7 34 0 7 52 Bauermeister 122 101 43 106 145 59.9 12.5 9 102 46 65 7 Farnum 111 144 60.8 13.5 20 Sprinter (WA 8118) 101 113 143 63.1 14.1 46 7 AP503 CL2 12.1 38 0 6 117 141 64.0 121 116 140 64.2 12.8 49 23 7 Finley 0 LCS Colonia 134 139 58.3 12.1 36 6 0 38 OR2080156H 148 127 129 136 62.3 12.8 6 41 13 7 **IDO1103** 108 135 62.8 12.6 Norwest 553 0 143 123 117 62.0 13.0 32 2 112 OR2100081H 102 13.1 35 0 2 96 92 0 2 OR2080236H 98 58.6 13.5 35 Low Stand, No Data SAS 4B 0 Low Stand, No Data 1 SAS W7 SAS W3 Low Stand, No Data 1 SAS W4 Low Stand, No Data 0 WA 8211 Low Stand, No Data Stand, WA 8189 Low No Data 0 C.V. % 10 9 3.0 5 167 9 11 0.9 15 14 LSD (.10) 6 15 0.6 0.4 2 7 8 1 148 **Average** 117 127 130 60.9 12.6 38 8 6 65 173 134 151 185 64.2 14.6 49 9 **Highest** Lowest 122 98 96 92 57.1 10.9 31 0

^{*}Spring Stand Rating: 0 (no plants) - 9 (full stand)

Moses Lake Irrigated Hard Winter Wheat

- 1. Grain yield in the 2014 Moses Lake Irrigated hard winter wheat trial averaged 130 bushels/acre, less than to the five-year average of 148 bushels/acre. The Moses Lake nursery was located about seven miles southeast of Moses Lake, WA (G. Burkholder, Cooperator).
- 2. This nursery was seeded on 6 October, 2013 following potatoes. Seed was placed at a 95#/acre seeding rate using a plot drill with double disc openers set on 6-inch spacing. Base fertilizer was 140#N/acre applied at planting and 80#N/acre by irrigation. Based on a spring soil test showing 272 #/acre available N, 154#/acre of additional N was applied for hard wheat protein based on expected yields. Fall seeding conditions were good as was emergence and stand establishment. Ratings of spring stands are presented in the data table as an evaluation range from 0 (all appeared dead) to 9 (full stands). Fall establishment, cold tolerance and winter survival were factors in the spring stand values. Six entries with spring stand ratings less than '2' did not have adequate stands to evaluate further in the trial.
- 3. Yields reported ranged from 92 to 185 bushels/acre. All yield values within the 10% LSD range of the highest yield are shown in bold and this included 4 of the 36 entries in this trial. The variety 'WB-Rimrock', was the highest yielding entry in the trial. Norwest 553 had the highest yield over 5 years at this location for names varieties. There was minor, inconsequential stripe rust observed at this location and no fungicide was applied.
- 4. Test weights averaged 60.9 lbs/bu and ranged from 57.1 to 64.2 lbs/bu. Grain protein at 12.6% averaged a little lower than in 2013 with a range of 10.9 to 14.6%. Plant height averaged 38 inches and some lodging occurred mostly by taller entries.