

Supplementary Materials

10.1071/CP16238_AC © CSIRO 2016

Supplementary Material: *Crop & Pasture Science*, 2016, 67(12), 1215–1222.

Referencing laser and ultrasonic height measurements of barley cultivars by using a herbometre as standard

Gero Barmeier^A, Bodo Mistele^A and Urs Schmidhalter^{A,B}

^ADepartment of Plant Sciences, Technical University of Munich, Emil-Ramann-Str. 2, 85354 Freising, Germany.

^BCorresponding author. Email: schmidhalter@wzw.tum.de

Table S1. Plant heights obtained from herbometre reference measurements and maximum and average height values recorded by the laser and the ultrasonic distance sensor, with each value representing the average of four replicated plot measurements in 2014 and 2015 for the investigated barley varieties

Variety	2014			2015	
	Average plant height from herbometre (cm)	Average maximum height from ultrasonic sensor (cm)	Average maximum height from laser distance sensor (cm)	Average plant height from herbometre (cm)	Average maximum height from ultrasonic sensor (cm)
BA5				42.8 ^g	42.1 ^d
STR2				51.7 ^{fg}	46.6 ^{cd}
SCB5				53.1 ^{fg}	50.3 ^{bcd}
IGP1				54.3 ^{fg}	54.2 ^{bcd}
BA1				54.6 ^{efg}	50.8 ^{bcd}
LFL3				55.1 ^{defg}	51.6 ^{bcd}
STR3				55.7 ^{cdefg}	54.3 ^{abcd}
ACM1				55.7 ^{bcdefg}	54.3 ^{abcd}
LFL2				57.7 ^{bcdefg}	57.1 ^{abcd}
STR7				57.9 ^{bcdefg}	56.9 ^{abcd}
SY Pablo				58.4 ^{bcdef}	56.9 ^{abcd}
BR10				58.5 ^{abcdef}	57.8 ^{abcd}
BR3				59.4 ^{abcdef}	58.4 ^{abcd}
STR4	54.8 ^{abcd}	43.7 ^{def}	44.4 ^{abc}	59.5 ^{abcdef}	55.4 ^{abcd}
SCB1	55.1 ^{abcd}	45.6 ^{cde}	44.5 ^{abc}	59.7 ^{abcdef}	55.9 ^{abcd}
LFL5	45.4 ^e	37.0 ^f	35.9 ^{cd}	59.7 ^{bcdef}	57.6 ^{abcd}
STR6				59.8 ^{abcdef}	59.0 ^{abcd}
BA4	57.2 ^{abcd}	52.2 ^{abc}	52.4 ^{ab}	60.0 ^{abcdef}	60.6 ^{abcd}
SCB3				60.0 ^{abcdef}	57.7 ^{abcd}
BR7				60.2 ^{abcdef}	58.6 ^{abcd}
STR5				60.2 ^{abcdef}	55.6 ^{abcd}
SY Leoo	53.9 ^{abcde}	49.3 ^{abcd}	44.7 ^{abc}	60.2 ^{abcdef}	58.8 ^{abcd}
NS1	59.4 ^{ab}	54.1 ^{ab}	51.5 ^{ab}	60.3 ^{abcdef}	58.42 ^{abcd}
SCB2				60.9 ^{abcdef}	57.9 ^{abcd}
SCB4				61.4 ^{abcdef}	59.2 ^{abcd}
SY Hobbit	57.5 ^{abc}	50.3 ^{abcd}	48.5 ^{ab}	61.5 ^{abcdef}	60.4 ^{abcd}
BR12	35.9 ^f	28.5 ^g	28.6 ^d	61.6 ^{abcdef}	61.8 ^{abc}
SY Tatoo				61.7 ^{abcdef}	59.8 ^{abcd}
SY Galation	56.5 ^{abcd}	48.7 ^{bcd}	50.1 ^{ab}	61.8 ^{abcdef}	60.9 ^{abcd}
BA3				62.2 ^{abcdef}	60.0 ^{abcd}
BA2				62.2 ^{abcdef}	60.9 ^{abcd}
LFL4				62.2 ^{abcdef}	60.8 ^{abcd}
SY Celoo				62.5 ^{abcdef}	60.0 ^{abcd}
LFL1				63.1 ^{abcdef}	60.3 ^{abcd}
EKD1	48.3 ^{cde}	39.5 ^{ef}	35.4 ^{cd}	63.3 ^{abcdef}	60.2 ^{abcd}
EKD2	62.3 ^a	56.6 ^a	55.9 ^{ab}	63.4 ^{abcdef}	59.5 ^{abcd}
SCB7				63.8 ^{abcdef}	60.8 ^{abcd}
SY Trooper				63.9 ^{abcdef}	62.9 ^{abc}
SY Volume				64.0 ^{abcdef}	60.0 ^{abcd}
SY Jallon				64.2 ^{abcdef}	61.7 ^{abc}
BR11				64.7 ^{abcdef}	66.0 ^{ab}
BR8				65.1 ^{abcdef}	61.4 ^{abc}
BR4				65.2 ^{abcdef}	62.8 ^{abc}
SY Wootan				65.2 ^{abcdef}	64.0 ^{abc}
ACM4	53.0 ^{abcde}	48.2 ^{bcd}	42.5 ^{bc}	65.9 ^{abcdef}	63.7 ^{abc}
SY Zoom	50.2 ^{bcde}	48.3 ^{bcd}	47.81 ^{abc}	65.9 ^{abcdef}	62.2 ^{abc}
SY Troophy				66.3 ^{abcdef}	62.9 ^{abc}

STR1				66.3 ^{abcdef}	67.4 ^{ab}
KWS2	55.2 ^{abcd}	51.6 ^{abc}	51.28 ^{ab}	66.3 ^{abcdef}	65.6 ^{ab}
BR1	55.7 ^{abcd}	49.8 ^{abcd}	48.87 ^{ab}	66.6 ^{abcdef}	68.3 ^a
BR5				67.1 ^{abcdef}	60.9 ^{abcd}
SY Quadra				67.1 ^{abcde}	67.4 ^{ab}
BR2				68.2 ^{abcde}	64.5 ^{ab}
BR6				68.8 ^{abcde}	69.0 ^a
ACM5	47.6 ^{de}	42.6 ^{def}	43.46 ^{abc}	69.2 ^{abcde}	69.1 ^a
SCB6				69.3 ^{abcde}	70.4 ^a
SY Tektoo				70.4 ^{abcd}	68.2 ^a
ACM2				70.9 ^{bc}	70.4 ^a
BR9				71.8 ^{ab}	67.4 ^{ab}
ACM3	52.3 ^{bcde}	50.3 ^{abcd}	47.78 ^{abc}	73.8 ^a	69.3 ^a