

Table 3. Mesophyll cell plan area and chloroplast number per mesophyll cell in diploid, tetraploid and hexaploid species of wheat. Cell plan areas with associated standard errors are means of 90 cells. Tetraploid *T. monococcum* and *T. tauschii* are autotetraploids of the diploid species. Mean cell plan areas for all the genotypes of *T. aestivum* except Galahad and Longbow are from Pyke and Leech (1985). Standard deviations associated with mean chloroplast numbers were calculated as for predicted values of y for given values of x from linear regressions (Steel and Torrie 1981)

Wheat species	Mean cell plan area (μm^2)	Mean chloroplasts per cell
Diploid		
<i>T. monococcum</i>	1677 (42)	54 (11)
<i>T. tauschii</i>	1306 (35)	52 (6)
Tetraploid		
<i>T. monococcum</i>	2265 (58)	84 (16)
<i>T. tauschii</i>	2225 (70)	82 (9)
<i>T. durum</i>	3162 (85)	111 (15)
<i>T. timopheevii</i>	3249 (72)	104 (10)
Hexaploid		
<i>T. aestivum</i> cv.		
Browick	3923 (115)	153 (17)
Little Joss	3938 (116)	159 (20)
Yeoman	3901 (112)	140 (19)
Holdfast	3775 (119)	146 (16)
Squarehead Masters	3755 (123)	144 (13)
Cappelle Desprez	3761 (104)	161 (19)
Maris Ranger	4184 (115)	148 (16)
Hobbit	3436 (85)	116 (13)
Avalon	3587 (97)	134 (13)
Norman	3539 (87)	139 (16)
Brock	3433 (95)	134 (17)
Brimstone	3618 (109)	135 (13)
Galahad	3720 (128)	157 (17)
Longbow	3284 (105)	130 (16)
Gawain	3892 (112)	158 (15)