

Table S1: The mean concentration of *Fusarium* DNA and mycotoxins in oat grain harvested year 2011 and 2012 from field plots receiving various tillage and straw removal treatments over a three-year period (2010-2012).

| Field ¹ | Treatm. ² | Fl DNA ^{3,4} (pg/μg) | (STD) ⁵ | Fg DNA ^{3,4} (pg/μg) | (STD) | Fa DNA ^{3,4} (pg/μg) | (STD) | DON ^{6,4} (μg/kg) | (STD) | HT2+T2 ^{6,4} (μg/kg) | (STD) | ENNB (μg/kg) | (STD) | ENNB1 (μg/kg) | (STD) | BEA (μg/kg) | (STD) | NIV (μg/kg) | (STD) |
|--------------------|----------------------|----------------------------------|--------------------|----------------------------------|--------|----------------------------------|--------|-------------------------------|--------|----------------------------------|-------|-----------------|-------|------------------|-------|----------------|-------|----------------|-------|
| Solør 2011 | DAP | 1707 | (743) | 2518 | (570) | 6928 | (1971) | 573 | (122) | 165 | (122) | NA ⁷ | | NA | | NA | | NA | |
| | SSP | 1360 | (751) | 2109 | (1032) | 5436 | (2641) | 342 | (154) | 161 | (144) | NA | | NA | | NA | | NA | |
| | SAH | 3030 | (1746) | 1419 | (1131) | 6556 | (3207) | 233 | (167) | 228 | (122) | NA | | NA | | NA | | NA | |
| | SSH | 2560 | (1893) | 691 | (460) | 10348 | (6636) | 189 | (149) | 205 | (149) | NA | | NA | | NA | | NA | |
| Solør 2012 | DAP | 380 | (129) | 284 | (37) | 659 | (322) | 854 | (447) | 99 | (40) | 131 | (85) | 15 | (9) | 16 | (14) | 210 | (89) |
| | SSP | 598 | (469) | 520 | (435) | 250 | (124) | 1012 | (876) | 170 | (84) | 48 | (45) | 6 | (7) | 20 | (22) | 196 | (75) |
| | SAH | 1702 | (1498) | 135 | (38) | 891 | (94) | 610 | (233) | 340 | (167) | 97 | (51) | 10 | (4) | 17 | (14) | 157 | (53) |
| | SSH | 2211 | (429) | 53 | (36) | 615 | (446) | 358 | (193) | 476 | (165) | 61 | (58) | 6 | (7) | 21 | (14) | 138 | (147) |
| Østfold 2011 | DAP | 1954 | (288) | 3375 | (1882) | 3572 | (738) | 2102 | (2131) | 34 | (11) | NA ⁷ | | NA | | NA | | NA | |
| | SSP | 2845 | (504) | 4535 | (648) | 2243 | (781) | 1469 | (1368) | 98 | (34) | NA | | NA | | NA | | NA | |
| | SAH | 2884 | (857) | 3471 | (3538) | 1543 | (562) | 2001 | (3647) | 152 | (23) | NA | | NA | | NA | | NA | |
| | SSH | 2710 | (463) | 1519 | (2021) | 1629 | (1158) | 247 | (41) | 196 | (34) | NA | | NA | | NA | | NA | |
| Østfold 2012 | DAP | 919 | (473) | 255 | (145) | 141 | (49) | 750 | (777) | 484 | (180) | 26 | (16) | 9 | (5) | 11 | (8) | 197 | (79) |
| | SSP | 833 | (244) | 302 | (228) | 341 | (156) | 338 | (100) | 302 | (102) | 18 | (21) | 4 | (4) | 8 | (8) | 187 | (42) |
| | SAH | 2375 | (1718) | 89 | (57) | 402 | (502) | 410 | (267) | 780 | (512) | 8 | (17) | 2 | (3) | 4 | (6) | 210 | (115) |
| | SSH | 1767 | (1065) | 179 | (126) | 328 | (338) | 453 | (165) | 564 | (313) | 140 | (229) | 4 | (5) | 7 | (9) | 248 | (93) |

1: The grain was harvested from non-inoculated experimental fields of oats at two locations in southeast Norway (Solør and Østfold) in 2011 and 2012.

2: The following tillage methods were included: DAP = deep autumn ploughing; SSP = shallow spring ploughing; SAH = shallow autumn harrowing; SSH = shallow spring harrowing.

3: DNA concentration of *Fusarium avenaceum* (Fa), *Fusarium graminearum* (Fg), and *Fusarium langsethiae* (Fl) in grain harvested from plots receiving the different tillage treatments. The DNA concentration is presented as pg DNA of the respective *Fusarium* species per μg plant DNA.

4: Each value is the average result from four plots receiving similar tillage treatment within a field. In two of these plots the straw was removed whereas in the other two plots the straw was chopped and retained in the field.

5: STD = standard deviation.

6: Mycotoxin concentration (μg/kg) in grain harvested from plots receiving the different tillage treatments. DON = deoxynivalenol, HT2+T2 = The sum of HT-2 and T-2 toxins, ENNB = Enniatin B, ENNB1 = Enniatin B1, BEA = beauvericin, NIV = nivalenol.

7: NA = Not analysed.