

Additional file 1. Rough data for field parameters of selected maize inbred lines at Smolice location in years 2004, 2006, and 2007.

| Inbred lines | sowing date | silking |                            |                           | pollen shed |                            |                           | Early vigor |
|--------------|-------------|---------|----------------------------|---------------------------|-------------|----------------------------|---------------------------|-------------|
|              |             | day     | number of days from sowing | Effective temperature sum | day         | number of days from sowing | Effective temperature sum |             |
| S160         | 20.04.04    | 26.VII  | 97                         | 907,1                     | 26.VII      | 97                         | 907,1                     | 6           |
|              | 24.04.06    | 12.VII  | 79                         | 857,6                     | 10.VII      | 77                         | 816,6                     | 6           |
|              | 19.04.07    | 8.VII   | 80                         | 831,3                     | 9.VII       | 81                         | 841                       | 7           |
| S314B        | 20.04.04    | 24.VII  | 95                         | 883,4                     | 24.VII      | 95                         | 883,4                     | 7           |
|              | 24.04.06    | 11.VII  | 78                         | 838,8                     | 8.VII       | 75                         | 780,8                     | 8           |
|              | 19.04.07    | 5.VII   | 77                         | 799,1                     | 4.VII       | 76                         | 791,1                     | 9           |
| S50676       | 20.04.04    | 29.VII  | 100                        | 942,1                     | 26.VII      | 97                         | 907,1                     | 7           |
|              | 24.04.06    | 23.VII  | 90                         | 1041,8                    | 13.VII      | 80                         | 877,9                     | 8           |
|              | 19.04.07    | 17.VII  | 89                         | 953,7                     | 11.VII      | 83                         | 859,2                     | 8           |
| S63322-3     | 20.04.04    | 23.VII  | 94                         | 869,4                     | 23.VII      | 94                         | 869,4                     | 9           |
|              | 24.04.06    | 15.VII  | 82                         | 908,8                     | 12.VII      | 79                         | 857,6                     | 9           |
|              | 19.04.07    | 8.VII   | 80                         | 831,3                     | 8.VII       | 80                         | 831,3                     | 9           |
| S68911       | 20.04.04    | 26.VII  | 97                         | 907,1                     | 24.VII      | 95                         | 883,4                     | 9           |
|              | 24.04.06    | 16.VII  | 83                         | 919,9                     | 11.VII      | 78                         | 838,8                     | 9           |
|              | 19.04.07    | 11.VII  | 83                         | 859,2                     | 10.VII      | 82                         | 849,2                     | 9           |
| S336A        | 20.04.04    | 27.VII  | 98                         | 917,9                     | 27.VII      | 98                         | 917,9                     | 6*          |
|              | 24.04.06    | 15.VII  | 82                         | 908,8                     | 9.VII       | 76                         | 798,8                     | 8           |
|              | 19.04.07    | 9.VII   | 81                         | 841,0                     | 7.VII       | 79                         | 820,5                     | 9           |

\* 75% loss of plants was noticed at V3 stage, thus the estimation of early vigor at V4 stage was hindered.