

Table S2. Characteristics of meiosis in *S. tuberosum* male sterile and fertile varieties

| Variety | Phase of meiosis | No of analyzed PMC | Number of normal PMC /% | Number of abnormal PMC / % | Type of abnormalities |
|-------------------------------|------------------|--------------------|-------------------------|----------------------------|---|
| Lomonosovskij male fertile | M I | 186 | 105/56,4 | 81/43,6 | 1-5 non oriented chromosomes precocious chromosomes (1-2 pares) |
| | A I | 82 | 44/53,7 | 38/46,3 | precocious, lagging chromosomes (1-2 pares), 1-4 non oriented chromosomes |
| | T I | 130 | 87/66,9 | 43/33,1 | 1-4 non oriented chromosomes |
| | M II | 60 | 43/71,7 | 17/29,3 | precocious, lagging chromosomes (1-2); 1-4 non oriented chromosomes |
| | A II | 29 | 21/72,4 | 8/27,6 | 2-4 non oriented chromosomes |
| | T II | 92 | 75/81,5 | 17/18,5 | 1-4 micronuclei |
| | Tetrads | 120 | 98/81,7 | 22/18,3 | Tetrads with 1-2 additional microspores derived from micronuclei |
| Sudarynja male sterile | M I | 358 | 198/55,3 | 160/44,7 | 1-6 non oriented chromosomes; precocious chromosomes (1-2 pares) |
| | A I | 86 | 47/54,7 | 39/45,3 | precocious, lagging chromosomes; non oriented chromosomes (1-4); |
| | T I | 40 | 34/85,0 | 6/15,0 | 1-4 non oriented chromosomes lagging chromosomes(1-4) |
| | M II | 37 | 20/54,1 | 17/45,9 | 2-4 non oriented chromosomes |
| | A II | 18 | 11/61,1 | 7/38,9 | 2-4 non oriented chromosomes lagging chromosomes |
| | T II | 93 | 58/62,4 | 35/37,6 | 1-4 micronuclei |
| | Tetrads | 163 | 138/84,7 | 25/15,3 | Tetrads with 1-2 additional microspores derived from micronuclei |
| Gusar male sterile | M I | 598 | 538/90,0 | 60/10,0 | 1-3 non oriented chromosomes precocious chromosomes |
| | A I | 329 | 306/93,0 | 23/7,0 | 1-3 lagging chromosomes; non oriented chromosome (1) |
| | T I | 272 | 262/96,3 | 10/3,7 | non oriented chromosome (1), lagging chromosomes(1-4) |
| | M II | 144 | 140/97,2 | 4/2,8 | 1-2 non oriented chromosomes |
| | A II | 51 | 47/92,2 | 4/7,8 | 1-3 lagging chromosomes |
| | T II | 34 | 33/97,1 | 1/2,9 | 1 micrunucleus |
| | Tetrads | 88 | 88/100,0 | 0/0,0 | |

PMC – Pollen Mother Cells