**Table S1.** Genotypes used in the study

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| --- | --- | --- | --- | --- | --- |
| **Genotype** | **Parents/Breeder** | **Origin** | **Genotype** | **Parents/Breeder** | **Origin** |
| 0701‒08 | Agria × Anais | Turkey | 0904‒01 | Marabel × Soleia | Turkey |
| 0702‒14 | Agria × Hermes | Turkey | 0904‒02 | Marabel × Soleia | Turkey |
| 0702‒15 | Agria × Hermes | Turkey | 0904‒04 | Marabel × Soleia | Turkey |
| 0702‒19 | Agria × Hermes | Turkey | 0904‒05 | Marabel × Soleia | Turkey |
| 0704 | Provento × Hermes | Turkey | 0904‒06 | Marabel × Soleia | Turkey |
| 0704‒08 | Provento × Hermes | Turkey | 0904‒11 | Marabel × Soleia | Turkey |
| 0704‒19 | Provento × Hermes | Turkey | 0905‒02 | Marfona × Soleia | Turkey |
| 0704‒21 | Provento × Hermes | Turkey | 0905‒03 | Marfona × Soleia | Turkey |
| 0705‒04 | Provento × Soleia | Turkey | 0905‒04 | Marfona × Soleia | Turkey |
| 0705‒11 | Provento × Soleia | Turkey | 0905‒06 | Marfona × Soleia | Turkey |
| 0705‒22 | Provento × Soleia | Turkey | 0905‒13 | Marfona × Soleia | Turkey |
| 0706‒18 | Provento × Anais | Turkey | 0908‒02 | Panda × Granola | Turkey |
| 0707‒09 | Van Gogh × Soleia | Turkey | 0908‒04 | Panda × Granola | Turkey |
| 0708‒05 | Van Gogh × Hermes | Turkey | 0908‒05 | Panda × Granola | Turkey |
| 0708‒11 | Van Gogh × Hermes | Turkey | 0909‒06 | Agria × Granola | Turkey |
| 0708‒18 | Van Gogh × Hermes | Turkey | 0909‒08 | Agria × Granola | Turkey |
| 0711‒18 | Panda × Soleia | Turkey | 0909‒10 | Agria × Granola | Turkey |
| 0712‒16 | Granola × Hermes | Turkey | 0909‒11 | Agria × Granola | Turkey |
| 0714‒04 | Granola × Soleia | Turkey | 0909‒12 | Agria × Granola | Turkey |
| 0714‒15 | Granola × Soleia | Turkey | MEÇ‒12 | Granola × Huincul | Turkey |
| 0714‒19 | Granola × Soleia | Turkey | PRI‒01 | Marfona Mutant | Turkey |
| 0901‒02 | Atlantic × Soleia | Turkey | PRI‒02 | Marfona Mutant | Turkey |
| 0901‒07 | Atlantic × Soleia | Turkey | PRI‒03 | Marfona Mutant | Turkey |
| 0901‒12 | Atlantic × Soleia | Turkey | PRI‒04 | Marfona Mutant | Turkey |
| 0901‒13 | Atlantic × Soleia | Turkey | PRI‒05 | MF‒1 × TS‒4 | Turkey |
| 0902‒02 | Cycloon × Soleia | Turkey | PRI‒06 | Granola × Huincul | Turkey |
| 0902‒03 | Cycloon × Soleia | Turkey | PRI‒07 | Granola × Huincul | Turkey |
| 0902‒04 | Cycloon × Soleia | Turkey | PRI‒08 | Granola × Huincul | Turkey |
| 0902‒08 | Cycloon × Soleia | Turkey | PRI‒10 | MF‒1 × LT‒7 | Turkey |
| 0902‒10 | Cycloon × Soleia | Turkey | PRI‒11 | Serrena × LT‒7 | Turkey |
| **Genotype** | **Parents/Breeder** | **Origin** | **Genotype** | **Parents/Breeder** | **Origin** |
| Sultan Ecem | Inan Meijer Tohumculuk | Turkey | Sante | Y 66‒13‒636 × Am 66‒42 | Netherlands |
| Agata | 52/72/2206 × Sirco | Netherlands | Sifra | Mondial × Robinta | Netherlands |
| Amora | Premiere × Anosta | Netherlands | Spunta | Bea × Usda 96‒56 | Netherlands |
| Anosta | Ostara × Provita | Netherlands | Sylvana | Fabula × Xantia | Netherlands |
| Arizona | UK 150‒19D22 × Mascotte | Netherlands | Taurus | Panda × Rz 87‒44 | Netherlands |
| Arsenal | AR 92‒1146 × Silvester | Netherlands | Triplo | Agria × Fresco | Netherlands |
| Bafana | Victoria × Felsina | Netherlands | Van Gogh | Zpc 69 C 239 × Gloria | Netherlands |
| Carrera | Allard × Concurrent | Netherlands | Volare | UK 90‒60‒27 × White Lady | Netherlands |
| Challenger | Aziza × Victoria | Netherlands | Agria‒1 | Quarta × Semlo | Germany |
| Colomba | Carrera × Agata | Netherlands | Agria‒2 | Quarta × Semlo | Germany |
| Compass | Pallas × Voyager | Netherlands | Alegria | Divina × 3.16910‒86 | Germany |
| Desiree | Urgenta × Depesche | Netherlands | Andante  | 1391.02 × Filea | Germany |
| Dione | Dar 89‒156 × Innovator | Netherlands | Borwina | Norika | Germany |
| Elgar | Y 66‒13‒636 × Ve 71‒105 | Netherlands | Concordia | Juli seedling × Flava seedling | Germany |
| Focus | Agria × Bru 82‒78 | Netherlands | Ewelina | ‒ | Germany |
| Grandeur | Charisma × Victoria | Netherlands | Fasan | 6.9152023‒77 × 1.299103‒77 | Germany |
| Hanna | Spunta × Morene | Netherlands | Granola | 3333/60 × 267.04 | Germany |
| Ivory Russet | Rz 93‒7105 × Innovator | Netherlands | Kea | Norika | Germany |
| Jaerla | Sirtema × MPI 19268 | Netherlands | Krone | BS 3/82 × Quinta | Germany |
| Lady Claire | Agria × Kw 78‒34‒470 | Netherlands | Ludmilla | Diana × Innovator | Germany |
| Lady Lenora | Bonanza × Lady Jo | Netherlands | Megusta | Bavaria Saat | Germany |
| Lady Olympia | Agria × Kw 78‒34‒470 | Netherlands | Merlot | Norika | Germany |
| Lady Rosetta | Cardinal × Vtn 62‒33‒3 | Netherlands | Pomqueen | Saatzucht Firlbeck | Germany |
| Laperla | Valor × Minerva | Netherlands | Rumba | Bolesta × Mira | Germany |
| Lindida  | Leyla × Bildtstar | Netherlands | Soraya | Norika | Germany |
| Marabel | Nena × Ma 75‒364 | Netherlands | 01‒536 | Pannonia University | Hungary |
| Marfona | Primura × Konst 51‒123 | Netherlands | 02‒173 | Pannonia University | Hungary |
| Mondeo | Maradonna × Ve 74‒45 | Netherlands | 02‒363 | Pannonia University | Hungary |
| Safari | Obelix × Amadeus | Netherlands | 03‒113 | Pannonia University | Hungary |
| Sagitta | Gallia × Rz‒86‒2918 | Netherlands | 04‒123 | Pannonia University | Hungary |

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| **Genotype** | **Parents/Breeder** | **Origin** |
| 06.62 | Pannonia University | Hungary |
| 07‒258 | Pannonia University | Hungary |
| 08‒212 | Pannonia University | Hungary |
| Chipke | Pannonia University | Hungary |
| Demon | 88.635 × Kuroda | Hungary |
| White Lady  | KE.40 × 1‒71.17/6 N+B | Hungary |
| 0504‒11 | ‒ | Hungary |
| CIP‒29 | International Potato Center | Peru |
| CIP‒31 | International Potato Center | Peru |
| CIP‒43 | International Potato Center | Peru |
| CIP‒44 | International Potato Center | Peru |
| CIP‒48 | International Potato Center | Peru |
| Mor Patates | ‒ | Peru |
| Ballerina | Agria × Obelix | Denmark |
| Fakse | Lutetia × Asva | Denmark |
| Hamlet | Caspar × Torva | Denmark |
| Royal | Midas × 92‒Buy‒1 | Denmark |
| Atlantic | Wauseon × Lenape | U.S.A |
| Brooke | Fl 1867 × Hermes | U.S.A |
| Russet Burbank | Burbank Mutant | U.S.A |
| Shelford | Fl 1625 × Hermes | U.S.A |
| Banba | Slaney × Estima | Ireland |
| Orla | A 25/19 × Estima | Ireland |
| Savanna | Famosa × Atlantic | Ireland |
| Surya | (Agria × Seedling) × Melissa | France |
| Crisper | Chipie × Hertha | France |
| Casablanca | 85g040‒080 × Picasso | United Kingdom |
| Chicago | Midas × 93g181‒010 | United Kingdom |
| Hermes | Ddr 5158 × 163/55 | Austria |
| Alonso | ‒ | ‒ |
| Privilege | ‒ | ‒ |