Table S1: Assessment of susceptibility to scab (leaf and fruit) and mildew of the apple cultivars in the JKI collection in 2012 and 2013. A nine-step scoring scale was used: 1 (no symptoms) and 9 (very heavy infection). Data for each cultivar (2 trees) with the heaviest infection were considered.

Cultivars	Acc. No.	Scab leaf		Scab fruit		Mildew leaf		Maximum score 3*
		2012	2013	2012	2013	2012	2013	
Äckerle-Apfel	APF1501	2	5	1	3	3	3	
Adams Parmäne	APF0002	1	4	1	1	1	3	
Adersleber Kalvill	APF0003	3	5	1	7	5	4	
Ahra	APF0749	1	1	1	3	3	3	x
Ahrina	APF0004	2	5	1	9	5	3	
Ahrista	APF0748	2	1	1	1	3	3	x
Aiwanija	APF1304	6	7	5	9	6	6	
Akane	APF0005	1	1	1	1	7	3	
Akerö	APF0287	2	5	1	5	7	6	
Alantapfel	APF1193	3	6	1	7	6	7	
Alkmene	APF0009	1	4	1	5	3	3	
Allendorfer Rosenapfel	APF1553	2	5	1	2	3	3	
Allington Pepping	APF0012	1	1	1	5	5	6	
Altländer Jakobsapfel	APF1195	3	6	1	3	3	6	
Altländer Pfannkuchenapfel	APF0015	1	2	1	3	2	2	x
Altländer Rosenapfel	APF0016	1	1	1	1	2	1	x
Altmärker Brautapfel	APF1383	2	n.d.	1	n.d.	2	n.d.	
Anacuta	APF0020	1	5	1	9	3	4	
Ananasrenette	APF0021	2	4	2	8	4	4	
Aneta	APF1113	1	1	1	2	3	2	x
Angelner Borsdorfer	APF1384	1	n.d.	1	n.d.	3	n.d.	
Angelner Herrenapfel	APF1305	1	4	1	5	4	4	
Angold	APF0902	1	1	1	1	5	4	
Anhalter	APF1197	3	7	1	5	4	1	
Annie Elizabeth	APF1306	2	7	1	7	7	7	
Antonovka	APF0022	1	1	1	1	4	4	
Antonovka Kameničká	APF0024	1	1	1	1	2	3	x
Antonovka Polutorafuntovaâ	APF0023	1	1	1	3	2	2	x
Apfel aus Grignon	APF1502	1	6	1	1	4	5	
Apfel aus Halder	APF0266	2	5	1	1	5	4	
Apfel aus Hawthornden	APF1337	2	2	1	4	2	4	
Apfel aus Lunow	APF0938	1	2	1	3	3	3	x
Api Etoile	APF1308	2	6	1	5	4	5	
Api Noir	APF1309	3	7	n.d.	9	3	5	
Api Rose	APF1198	3	6	2	3	5	6	

Cultivars	Acc. No.	Scab leaf		Scab fruit		Mildew leaf		Maximum score 3*
		2012	2013	2012	2013	2012	2013	
Apollo	APF0026	1	4	1	3	3	3	
Ariwa	APF1041	1	1	1	1	2	1	x
Arlet	APF0028	4	6	2	8	4	5	
Ashmeads Kernel	APF0936	2	4	1	1	1	2	
Astillisch	APF0032	2	6	1	5	3	4	
Astramel	APF0033	3	7	1	8	3	3	
Auralia	APF0035	3	3	1	5	4	4	
Ausbacher Roter	APF0940	2	5	1	5	3	2	
Backapfel	APF1200	3	7	1	4	3	4	
Baldwin	APF0038	4	5	1	2	6	5	
Bancroft	APF0040	3	5	2	5	5	5	
Bänziger	APF1310	1	4	1	5	3	3	
Batullenapfel	APF1385	2	n.d.	1	n.d.	3	n.d.	
Baujade	APF0878	5	1	1	3	3	4	
Baumanns Renette	APF0994	3	5	1	3	1	2	
Bayhs Mostapfel	APF1386	4	n.d.	1	n.d.	4	n.d.	
Beerbacher Taffetapfel	APF1201	1	6	n.d.	3	3	3	
Bellefleur Kitajka	APF0044	3	1	2	4	7	6	
Bellefleur Krasnij	APF0043	2	3	1	3	3	3	x
Benoni	APF1311	1	7	1	8	4	6	
Berkersheimer Roter	APF1202	3	5	n.d.	2	6	4	
Berlon	APF0047	3	4	1	3	5	4	
Berner Rosenapfel	APF0048	1	4	1	3	3	3	
Bessemânka Mičurinskaâ	APF0050	2	1	1	1	3	4	
Betzinger Grünapfel	APF1504	2	5	1	7	1	1	
Biesterfelder Renette	APF0051	1	4	1	n.d.	4	3	
Birnförmiger Apfel	APF1388	2	n.d.	1	n.d.	2	n.d.	
Bischofshut	APF0052	2	3	1	n.d.	3	4	
Bischofsmütze nach Zorn	APF1312	1	3	3	1	2	6	
Bismarckapfel	APF0053	3	5	1	5	4	6	
Bittenfelder	APF0054	1	4	1	3	3	1	
Blauacher Wädenswil	APF0594	4	7	1	7	4	5	
Blumberger Langstiel	APF1313	1	4	1	7	3	3	
Böblinger Straßenapfel	APF1505	1	5	1	3	1	1	
Bockenhusen	APF1205	2	3	1	1	2	1	x
Böhmischer Roter Jungfernapfel	APF1194	3	3	1	5	5	5	
Boikenapfel	APF0061	1	5	1	7	3	6	
Borsdorfer Kitajka	APF0064	1	5	1	8	3	5	
Börtlinger Weinapfel	APF0065	2	1	1	1	2	2	x
Boskoop	APF0066	1	4	1	1	2	3	

Cultivars	Acc. No.	Scab leaf		Scab fruit		Mildew leaf		Maximum score 3*
		2012	2013	2012	2013	2012	2013	
Braeburn	APF0073	4	8	1	9	7	8	
Bramleys Seedling	APF0074	2	3	1	1	2	2	x
Bratwurstapfel	APF1389	2	n.d.	1	n.d.	3	n.d.	
Bratzelapfel	APF1506	3	3	1	5	2	2	
Bremer Doodapfel	APF1206	7	7	5	7	6	4	
Brettacher	APF0077	2	1	3	2	3	3	x
Brownless Russet	APF1314	2	6	1	1	3	3	
Burchards Netzrenette	APF1393	1	n.d.	1	n.d.	2	n.d.	
Burgstädter Renette	APF1207	2	6	1	5	3	4	
Carola	APF0099	2	5	1	5	5	6	
Caroline Hopkins	APF1315	6	7	1	7	2	3	
Carpentin	APF1208	3	6	1	1	3	3	
Celeste	APF1134	5	6	5	9	1	4	
Cellini	APF0100	2	6	1	8	2	4	
Champagner Renette	APF0101	1	6	1	5	1	4	
Charlamowsky	APF0103	2	4	1	5	4	6	
Charles Ross	APF0104	2	3	1	3	2	4	
Charlotte	APF0105	4	7	1	9	4	6	
Clivia	APF0111	3	5	2	8	8	6	
Cloden	APF0234	3	7	3	9	5	5	
Cludius Herbstapfel	APF1209	1	5	3	9	5	6	
Coulons Renette	APF0118	1	3	1	1	3	4	
Cox Orange	APF0120	3	1	1	1	6	7	
Cox Pomona	APF0121	2	4	1	7	3	4	
Crawley Beauty	APF0123	3	3	3	5	3	3	
Creo	APF0996	3	6	2	3	3	3	
Crimson Beauty	APF0124	2	5	1	3	3	4	
Crimson Crisp	APF0923	2	1	1	1	6	5	
Cripps Pink	APF1044	4	8	1	9	4	4	
Cripps Red	APF1045	7	7	4	9	4	4	
Dalili	APF1132	6	4	9	9	3	4	
Dalinbel	APF1053	4	3	1	3	7	6	
Dalinred	APF1054	2	1	1	2	4	4	
Damason Renette	APF0995	2	7	1	1	3	4	
Danziger Kantapfel	APF0598	2	3	1	1	4	3	
Dayton	APF0907	2	4	1	1	3	4	
Dean's Küchenapfel	APF1316	2	2	1	7	6	7	
Delcorf	APF0133	4	5	7	7	3	5	
Delgollune	APF0132	3	7	3	8	3	4	
Delicious	APF0135	4	6	4	5	5	4	

Cultivars	Acc. No.	Scab leaf		Scab fruit		Mildew leaf		Maximum score 3*
		2012	2013	2012	2013	2012	2013	
Delorina	APF1112	3	3	1	1	6	7	
Demokrat	APF0148	3	5	2	9	2	4	
Der Leckerbissen	APF1508	2	n.d.	1	n.d.	4	4	
Diana	APF0151	2	3	1	7	5	4	
Dietzer Wintergoldrenette	APF1210	1	2	1	3	3	1	x
Discovery	APF0153	1	1	1	1	3	3	x
Doberaner Renette	APF1318	3	6	1	n.d.	3	1	
Doppelter Härtling	APF1510	2	4	1	5	4	5	
Doppelter Hausapfel	APF1511	3	n.d.	1	n.d.	3	4	
Doppelter Prinzenapfel	APF1319	1	4	1	n.d.	3	3	
Dorheimer Streifling	APF1212	1	1	1	1	5	3	
Drakenstein	APF0886	5	5	3	9	5	6	
Dukat	APF0158	8	7	7	9	3	6	
Dülmener Rosenapfel	APF0159	2	1	1	3	2	3	x
Early McIntosh	APF0161	2	3	2	n.d.	1	5	
Ecolette	APF0998	1	1	1	2	3	2	x
Edelborsdorfer	APF1131	1	5	1	3	1	3	
Edelroter	APF1213	3	6	1	7	3	4	
Edler aus Leipzig	APF0200	3	7	1	n.d.	3	4	
Edler Rosenstreifling	APF1215	2	7	n.d.	5	6	7	
Edward VII	APF1320	2	4	3	5	1	3	
Egremont Russet	APF1321	3	5	1	1	4	6	
Elan	APF0170	5	5	1	9	3	7	
Elektra	APF0172	4	4	1	7	6	7	
Elise Rathke	APF0897	2	4	2	n.d.	3	4	
Elstar	APF0176	5	5	2	1	6	8	
Empire	APF0178	4	7	1	9	3	5	
Engelsberger	APF0179	1	5	1	5	2	4	
Engelshofer	APF0180	1	1	1	1	2	3	x
Englische Spitalrenette	APF1216	3	4	1	3	4	3	
Englischer Prinz	APF0181	1	1	1	1	3	4	
Enterprise	APF0914	1	3	1	1	3	4	
Erbachhofer	APF0894	1	1	1	3	2	1	x
Ernst Bosch	APF0410	1	1	1	n.d.	3	5	
Erwin Baur	APF 0185	4	8	2	1	1	4	
Erwin Junge	APF0186	3	6	3	9	7	7	
Esopus Spitzenburg	APF1217	4	7	3	n.d.	7	6	
Eva's Apfel	APF1402	5	n.d.	1	n.d.	3	n.d.	
Extertaler	APF1218	2	3	1	1	3	3	x

Cultivars	Acc. No.	Scab leaf		Scab fruit		Mildew leaf		Maximum score 3*
		2012	2013	2012	2013	2012	2013	
Falstaff	APF0188	5	5	3	9	6	7	
Fameuse	APF1403	3	n.d.	1	n.d.	2	n.d.	
Fantazja	APF0189	3	8	3	9	5	7	
Fettapfel	APF1324	1	3	2	3	2	3	x
Feuerroter Taubenapfel	APF0291	2	n.d.	1	7	4	5	
Fießers Erstling	APF0191	2	2	3	1	4	4	
Fiesta	APF0192	5	6	1	8	6	7	
Filippa	APF1325	1	3	1	3	3	3	x
Finkenwerder Prinzenapfel	APF0194	2	2	1	1	4	4	
Florina	APF1456	5	6	1	1	3	1	
Fraas Sommerkalvill	APF1327	1	3	1	6	5	6	
Franksenapfel	APF0948	1	1	1	1	5	7	
Französische Goldrenette	APF1328	2	7	1	3	5	7	
Französischer Tiroler	APF0196	2	3	2	9	4	6	
Frau Margarethe von Stosch	APF1329	5	7	4	n.d.	5	7	
Freiherr von Berlepsch	APF0046	1	5	1	5	4	5	
Freiherr von Hausen	APF1182	2	7	1	9	3	4	
Freyberg	APF0198	6	4	1	1	5	9	
Friedberger Bohnapfel	APF1408	1	n.d.	1	n.d.	2	n.d.	
Friesenapfel	APF1512	2	3	1	1	3	3	x
Früher Viktoria	APF0202	2	1	1	1	2	3	x
Fuji	APF0204	6	7	5	9	3	4	
Fukunishiki	APF0205	7	7	1	5	4	4	
Fürst Blücher	APF0207	1	1	1	3	3	4	
Gacksapfel	APF1221	1	6	1	5	3	3	
Gaesdonker Renette	APF1513	2	1	1	1	1	1	x
Gala	APF0208	5	5	3	9	5	5	
Galloway Pepping	APF0210	2	6	1	1	5	4	
Gartenmeister Simon	APF1409	2	n.d.	1	n.d.	3	n.d.	
Gascoynes Scharlachroter	APF0212	2	7	1	1	2	3	
Geflammter Kardinal	APF1330	2	1	1	1	3	3	x
Geheimrat Breuhahn	APF0078	2	7	1	9	5	5	
Geheimrat Dr. Oldenburg	APF0486	5	7	3	9	2	4	
Geheimrat Wesener	APF1410	3	n.d.	1	n.d.	3	n.d.	
Gehrers Rambur	APF1120	2	3	1	3	3	3	x
Gelbe Sächsische Renette	APF0225	2	6	1	3	4	5	
Gelbe Schleswiger Renette	APF1331	1	1	1	3	3	2	x
Gelber Bellefleur	APF0227	2	6	1	n.d.	4	4	
Gelber Edelapfel	APF0226	2	5	1	n.d.	3	4	
Gelber Münsterländer Borsdorfer	APF0943	1	4	1	3	5	4	

Cultivars	Acc. No.	Scab leaf		Scab fruit		Mildew leaf		Maximum score 3*
		2012	2013	2012	2013	2012	2013	
Gelber Osterapfel	APF1411	2	n.d.	1	n.d.	5	n.d.	
Gelber Richard	APF0249	2	7	1	7	5	7	
Generos	APF1039	1	1	1	1	6	6	
Georg Cave	APF1412	5	n.d.	1	n.d.	4	n.d.	
Gerlinde	APF0992	2	5	1	3	3	4	
Gestreifter Matapfel	APF1203	3	4	1	2	7	3	
Gewürzluiken	APF0939	1	4	1	2	2	3	
Gilliflower	APF1395	1	n.d.	1	n.d.	3	n.d.	
Glogierowka	APF0236	1	5	1	4	4	3	
Gloria Mundi	APF1046	2	5	1	n.d.	2	4	
Gloster	APF0238	3	7	1	9	2	6	
Gniedelsteiner	APF1225	4	5	1	5	4	4	
Gochsheimer	APF1514	1	2	1	1	1	1	x
Göhrings Renette	APF1563	1	3	1	1	2	1	x
Golden Delicious	APF0239	6	7	5	9	5	7	
Golden Delicious Belgolden	APF0042	5	7	8	n.d.	5	8	
Golden Delicious Bovey 85	APF0215	6	7	3	9	5	7	
Golden Delicious Doud	APF0137	7	8	3	n.d.	5	8	
Golden Delicious Smoothee	APF0640	5	7	3	9	5	7	
Golden Resistant	APF0241	1	2	1	3	2	3	x
Goldparmäne	APF0724	2	5	1	3	3	5	
Goldrenette aus Blenheim	APF1079	3	6	1	3	2	3	
Goldrenette Römischer Kikker	APF1332	3	5	1	9	7	7	
GoldRush	APF0922	1	2	1	1	6	7	
Goldstar	APF1114	1	4	1	1	3	4	
Graf Ezzo	APF0247	5	6	2	6	2	5	
Grahams Jubiläumsapfel	APF0648	1	4	1	4	1	4	
Granny Smith	APF0250	3	8	2	8	5	8	
Grasblümchen	APF1414	2	n.d.	1	n.d.	4	n.d.	
Graue Herbstrenette	APF1228	4	7	1	1	3	3	
Gravensteiner	APF0253	2	7	1	5	3	5	
Greensleeves	APF0255	3	6	1	4	4	4	
Grenadier	APF0256	2	1	1	1	1	3	x
Gretapfel	APF1333	1	1	1	1	4	3	
Grimes Golden	APF0258	4	6	3	9	5	6	
Groninger Krone	APF0946	1	3	1	3	3	6	
Großer Api	APF1230	4	7	1	3	1	2	
Großherzog Friedrich von Baden	APF1334	2	4	1	7	5	5	
Grünapfel	APF0018	1	4	1	3	2	3	
Grüner Fürstenapfel	APF1232	1	3	1	3	4	3	

Cultivars	Acc. No.	Scab leaf		Scab fruit		Mildew leaf		Maximum score 3*
		2012	2013	2012	2013	2012	2013	
Grüner Stettiner	APF1322	2	4	1	n.d.	4	3	
Grüner Wilhelm	APF1517	2	3	1	3	5	3	
Grünling von Rhode Island	APF0574	2	6	1	3	6	6	
Gubener Waraschke	APF0261	1	3	1	1	3	1	x
Gustavs Dauerapfel	APF1335	1	2	1	2	3	2	x
Hadelner Sommerprinz	APF1336	1	2	1	1	3	2	x
Halberstädter Jungfernapfel	APF1338	3	7	1	8	3	4	
Hansa	APF1419	2	7	1	7	3	3	
Harberts Renette	APF0268	3	7	1	9	4	7	
Hartapfel	APF1233	3	5	1	7	2	4	
Hauschildapfel	APF1421	2	7	1	7	5	5	
Hausmütterchen	APF1422	2	6	1	5	3	4	
Hauxapfel	APF0270	2	7	1	3	1	5	
Havelgold	APF0271	4	7	2	9	6	7	
Heimeldinger	APF1235	3	4	1	2	3	5	
Heinemanns Schlotterapfel	APF1181	1	1	1	1	3	5	
Helios	APF0272	4	5	3	n.d.	3	3	
Herbststreifling	APF1234	2	6	1	3	6	8	
Herma	APF0274	6	8	n.d.	9	5	8	
Hermann	APF1423	2	4	1	5	3	4	
Herzog von Cumberland	APF1424	1	3	1	4	3	2	
Herzogin Olga	APF1425	4	4	1	n.d.	3	5	
Heslacher Gereutapfel	APF1237	1	3	n.d.	2	3	3	
Hesselmanns Schlotterapfel	APF1339	1	4	1	1	3	4	
Heuchelheimer Schneeapfel	APF0276	2	3	1	3	3	4	
Hibernal	APF0277	1	1	1	1	2	3	x
Hibernal 4n	APF0278	1	1	n.d.	3	2	2	
Hilde	APF0891	1	1	1	3	2	4	
Himbacher Grüner	APF1238	3	6	2	7	4	4	
Himbeerapfel aus Holovousy	APF0279	1	3	5	5	4	5	
Hochzeitsapfel	APF1240	2	2	1	1	2	3	x
Holiday	APF0280	5	8	5	9	5	7	
Holländer Prinz	APF1241	1	5	1	3	3	3	
Holsteiner Cox	APF1340	3	6	1	n.d.	5	6	
Honeygold	APF0282	5	7	3	9	4	6	
Honigmilchapfel	APF1428	3	5	1	5	3	4	
Horei	APF0283	5	8	4	9	5	8	
Horneburger Pfannkuchenapfel	APF0284	1	6	1	5	3	4	
Horrenberger Renette	APF1520	3	5	1	7	3	2	
Hossfelds Gulderling	APF0262	1	3	1	5	4	4	

Cultivars	Acc. No.	Scab leaf		Scab fruit		Mildew leaf		Maximum score 3*
		2012	2013	2012	2013	2012	2013	
Howgate Wonder	APF0285	2	7	1	9	2	3	
Idagold	APF0288	2	8	1	8	5	7	
Idared	APF0290	5	7	n.d.	9	7	9	
Iduna	APF1042	4	7	1	9	3	5	
Ilga	APF0292	1	1	1	5	3	3	
Ingol	APF0294	1	4	1	n.d.	4	4	
Ingrid Marie	APF0295	1	2	1	n.d.	4	4	
Iversenapfel	APF1429	3	6	1	5	4	6	
Ivette	APF0296	4	7	3	5	5	7	
Jakob Fischer	APF0297	1	2	1	n.d.	1	2	
Jakob Lebel	APF0298	1	5	3	6	2	3	
Jamba	APF0299	3	6	1	5	3	4	
James Grieve	APF0300	4	6	3	6	3	7	
Jerseymac	APF0306	5	7	5	9	4	7	
Jester	APF0307	3	5	4	5	3	5	
Jeverländer Süßapfel	APF1243	1	1	1	1	1	1	x
Johannes Böttner	APF0308	3	6	3	7	3	7	
Johannes Hannes	APF1522	2	3	n.d.	n.d.	5	5	
Jonadel	APF0312	1	4	1	1	2	4	
Jonagold	APF0315	5	8	3	8	7	8	
Jonagored	APF0317	7	8	6	8	7	8	
Jonagram	APF0318	9	9	5	9	3	7	
Jonamac	APF0321	7	8	5	9	3	5	
Jonathan	APF0327	4	7	3	9	5	7	
Jongrimes	APF0330	1	4	1	5	3	4	
Josef Musch	APF1342	3	7	1	3	3	3	
Joyce	APF1025	3	7	1	3	2	3	
Ju Tsin	APF0333	2	7	1	7	6	5	
Juliane	APF0339	1	3	1	n.d.	2	1	
Juno	APF0342	5	7	4	7	5	7	
Jupiter	APF0343	4	4	1	n.d.	6	5	
Kaiser Alexander	APF0926	2	5	1	5	2	4	
Kaiser Wilhelm	APF0346	2	3	1	n.d.	3	4	
Kanadarenette	APF0348	3	5	1	1	3	3	
Kandil Sinap	APF1344	1	5	1	n.d.	4	5	
Kardinal Bea	APF0349	1	3	1	3	1	2	x
Karin Schneider	APF0350	1	2	1	3	4	4	
Karmeliter Renette	APF0352	1	7	1	5	5	5	
Karmijn de Sonnaville	APF0354	3	5	1	n.d.	5	6	
Karthäuserapfel	APF1433	2	7	1	7	2	3	

Cultivars	Acc. No.	Scab leaf		Scab fruit		Mildew leaf		Maximum score 3*
		2012	2013	2012	2013	2012	2013	
Käsapfel	APF1244	1	5	1	1	3	4	
Kaschaker	APF0355	4	5	3	6	1	4	
Kasseler Renette	APF0356	2	7	n.d.	7	3	4	
Kendall	APF0358	5	7	1	9	4	7	
Keswick's Küchenapfel	APF1245	1	3	2	2	3	3	x
Kidd's Orange Red	APF0361	7	5	1	n.d.	5	6	
Kirschweinling	APF0364	1	5	1	4	2	3	
Kitajka Solotaâ Rannââ	APF0365	1	5	1	7	3	5	
Klarapfel	APF0367	1	5	1	1	4	5	
Kleiner Fleiner	APF1434	1	6	1	3	2	4	
Kleiner Langstiel	APF1246	1	5	1	4	3	6	
Kloppenheimer Streifling	APF1247	1	6	1	1	3	3	
Knäckerla	APF1523	1	1	n.d.	1	4	6	
Königin Sophienapfel	APF1345	2	5	1	7	3	3	
Königinapfel	APF0368	3	5	1	3	1	4	
Königlicher Kurzstiel	APF0369	2	5	1	n.d.	3	5	
Königsapfel von Jersey	APF1248	1	1	n.d.	1	3	4	
Korbacher Edelrenette	APF1249	1	1	1	3	4	3	
Korei	APF0371	5	8	4	9	5	7	
Kriemhild	APF0257	3	5	1	4	3	4	
Kronprinz Rudolf	APF1436	4	7	3	3	3	4	
Krügers Dickstiel	APF0375	1	4	1	1	2	2	
Krumstedter Paradies	APF1252	3	6	1	1	6	7	
Kumpfenapfel	APF1524	1	2	1	3	2	6	
Kurzcox	APF0377	3	4	1	3	4	5	
Lady Apple	APF1253	4	8	1	9	3	7	
Lady Williams	APF0930	5	9	1	9	4	5	
Landsberger Renette	APF0378	5	7	5	9	3	4	
Lanes Prinz Albert	APF0379	4	6	1	5	5	6	
Langer Grüner Gulderling	APF1255	3	6	1	n.d.	5	4	
Langtons Sondergleichen	APF1257	1	5	1	7	3	3	
Large Transparent	APF0381	2	7	1	n.d.	6	7	
Lausitzer Nelkenapfel	APF0383	2	6	1	6	3	4	
Lautertaler Waldapfel	APF1438	2	3	1	5	2	3	
Laxtons Fortune	APF0388	1	2	1	1	2	2	x
Laxtons Superb	APF0392	4	6	1	n.d.	4	4	
Laxtons Triumph	APF0393	1	4	1	n.d.	4	4	
Leistadter Rotapfel	APF1439	2	5	5	5	1	2	
Leupoldsdorfer Süßapfel	APF0394	1	4	1	1	5	6	
Linda	APF0396	2	5	n.d.	7	3	5	

Cultivars	Acc. No.	Scab leaf		Scab fruit		Mildew leaf		Maximum score 3*
		2012	2013	2012	2013	2012	2013	
Linsenhofer Sämling	APF1347	1	2	1	1	2	2	x
Lippoldsberger Tiefblüte	APF1487	1	5	1	5	2	3	
Lired	APF0301	4	7	3	7	3	7	
Lobo	APF0397	4	7	4	9	4	5	
Lohrer Rambur	APF0624	1	3	1	1	3	4	
Lombarts Kalvill	APF1440	3	3	5	1	6	7	
London Pepping	APF0399	1	5	1	7	5	5	
Lord Grosvenor	APF1525	2	4	n.d.	5	4	5	
Lord Lambourne	APF0400	3	6	1	4	4	3	
Lord Suffield	APF1348	2	5	1	n.d.	5	5	
Ludivigs Rosenapfel	APF1258	2	3	1	1	3	3	x
Luikenapfel	APF1441	1	4	1	5	3	1	
Luisenapfel	APF0402	5	6	1	5	3	2	
Lütticher Ananaskalvill	APF1349	1	4	1	6	5	6	
Macoun	APF0405	5	7	1	7	3	5	
Maibiers Parmäne	APF0406	1	7	1	5	7	4	
Maiden Blush	APF0407	4	6	3	9	5	6	
Maigold	APF0408	4	6	1	9	4	3	
Malling Kent	APF0359	7	5	4	7	4	4	
Malvesier	APF1557	2	4	n.d.	1	2	3	
Manks Küchenapfel	APF1351	2	4	n.d.	3	5	4	
Maren Nissen	APF1442	1	7	1	4	6	5	
Margol	APF1018	3	4	1	1	2	3	
Marienwerder Gulderling	APF1443	2	7	n.d.	5	3	3	
Marina	APF1043	2	5	1	1	8	6	
Martens Sämling	APF0412	3	4	1	1	3	3	
Martha	APF1259	5	9	1	8	6	5	
Martini	APF0413	1	3	2	4	4	3	
Mauks Hybride	APF1188	2	4	1	3	3	4	
Maunzenapfel	APF0934	1	1	1	5	4	3	
Mautapfel	APF1196	2	5	n.d.	4	5	5	
McIntosh	APF0418	4	8	1	9	4	5	
McIntosh 4 n	APF0422	4	8	n.d.	n.d.	7	7	
McIntosh Giant	APF0424	4	8	n.d.	n.d.	4	6	
McIntosh Rogers	APF0426	6	7	3	9	4	5	
McIntosh Wijcik	APF0430	4	9	1	9	3	5	
Mecklenburger Königsapfel	APF1446	1	4	1	3	3	1	
Melrose	APF0433	3	5	1	7	4	5	
Meran	APF0434	7	7	8	9	6	6	
Merton Beauty	APF0435	2	4	1	4	5	4	

Cultivars	Acc. No.	Scab leaf		Scab fruit		Mildew leaf		Maximum score 3*
		2012	2013	2012	2013	2012	2013	
Merton Charm	APF0436	7	6	5	n.d.	5	6	
Metzrenette	APF1260	4	6	1	9	4	4	
Millers Seedling	APF1352	1	3	1	3	3	3	x
Milton	APF0441	2	7	1	5	5	6	
Minister von Hammerstein	APF0267	4	6	3	7	4	5	
Minjon	APF0442	2	4	1	9	5	6	
Mio	APF0443	1	1	1	3	3	3	x
Monarch	APF1354	4	3	4	5	4	3	
Monroe	APF0453	6	8	5	9	7	8	
Moringer Rosenapfel	APF1353	2	5	1	7	4	5	
Mosel-Eisenapfel	APF1261	4	5	1	1	3	1	
Multhaupts Renette	APF0445	2	5	1	7	6	6	
Murasaki	APF0454	3	5	3	7	3	4	
Muskatrenette	APF0455	1	3	1	2	5	6	
Mutsu	APF0456	7	6	5	7	7	5	
Mutterapfel	APF0457	1	4	1	5	5	4	
Nabella	APF0458	2	7	1	7	3	3	
Namfo	APF1000	6	8	7	9	7	8	
Naumburger Tiefblüte	APF1527	1	3	1	3	3	5	
Nela	APF0961	1	1	1	1	3	1	x
Nelkenapfel	APF1262	3	5	3	1	3	1	
Neuhäuser Boikenapfel	APF1447	1	7	1	5	3	3	
Neujahrsapfel	APF0463	5	8	4	n.d.	4	3	
Norda	APF0473	1	3	2	5	3	4	
Northern Spy	APF0478	4	8	n.d.	9	5	7	
Notarisapfel	APF1265	2	n.d.	1	n.d.	3	n.d.	
Obelisk	APF0481	5	7	3	9	3	5	
Oberdiecks Renette	APF0482	4	7	1	8	5	5	
Oberländer Himbeerapfel	APF1279	1	n.d.	1	n.d.	3	n.d.	
Oberlausitzer Muskatrenette	APF0254	3	1	1	3	3	3	x
Oberöstereichischer Brünnerling	APF0259	2	2	1	1	1	3	x
Ochsennase	APF1450	6	7	5	7	3	5	
Odenwälder	APF0483	2	1	2	1	3	4	
Odin	APF0485	4	5	3	9	5	7	
Oetwiler Renette	APF1528	1	2	1	1	4	4	
Ohm Paul	APF1358	1	n.d.	1	n.d.	5	n.d.	
Öhringer Blutstreifling	APF1357	3	n.d.	1	n.d.	3	n.d.	
Ontario	APF0488	5	7	1	7	8	7	
Ontario Geneva	APF0490	4	7	5	n.d.	5	7	
Orangenburg	APF0491	3	5	3	5	6	6	

Cultivars	Acc. No.	Scab leaf		Scab fruit		Mildew leaf		Maximum score 3*
		2012	2013	2012	2013	2012	2013	
Orleans Renette	APF0494	3	8	1	7	3	4	
Orthley	APF0495	9	7	9	9	7	7	
Osnabrücker Renette	APF1266	2	n.d.	1	n.d.	6	n.d.	
Otava	APF0496	3	6	2	3	5	6	
Ozark Gold	APF0500	3	7	3	9	4	6	
Pannemanns Tafelapfel	APF1019	3	6	1	3	5	7	
Parkers Pepping	APF1268	4	n.d.	1	n.d.	5	n.d.	
Peasgoods Sondergleichen	APF0502	3	5	3	n.d.	2	1	
Pfaffenhofer Schmelzling	APF1529	1	2	1	3	2	2	x
Pfirsichroter Sommerapfel	APF0506	2	1	1	3	5	7	
Pflankenapfel	APF1270	1	n.d.	1	n.d.	1	n.d.	
Pidi	APF1451	7	4	3	7	3	4	
Pigloma	APF0511	3	7	3	9	3	7	
Piglos	APF0512	5	7	3	9	3	7	
Pikant	APF0513	4	6	1	9	5	6	
Pikkolo	APF0514	4	7	1	5	5	7	
Pikora	APF0515	4	7	1	9	5	7	
Pillnitzer Roter 1	APF0766	2	5	2	5	3	3	
Pillnitzer Roter 2	APF0767	3	6	1	5	3	4	
Pimona	APF0517	3	5	1	6	6	7	
Pinett	APF0518	5	7	3	9	5	7	
Pirina	APF0521	2	6	1	5	3	4	
Pixie Crunch	APF0917	1	3	1	1	6	6	
Pohls Schlotterapfel	APF0527	1	4	1	4	5	6	
Pohorka	APF0528	2	3	n.d.	n.d.	4	7	
Pomme d'Or	APF1548	2	3	1	7	1	1	
Pommerscher Schneeapfel	APF0529	1	7	1	2	5	7	
Porzenapfel	APF1137	1	2	1	1	2	2	x
Präsident Decour	APF0888	1	1	1	5	2	1	
President Roulin	APF1087	2	4	1	3	4	5	
Prima	APF0532	1	7	1	7	1	1	
Primiera	APF1081	1	5	1	1	4	6	
Primula	APF0534	1	2	1	1	3	4	
Prinz Albrecht von Preußen	APF0007	1	2	1	1	2	3	x
Prinzenapfel	APF0536	1	3	1	3	2	3	x
Priscilla	APF0538	1	3	1	1	5	7	
Puntschapfel	APF1452	4	4	1	1	4	4	
Purpurroter Agataapfel	APF1453	1	4	1	1	2	7	
Purpurroter Cousinot	APF0541	1	1	1	1	4	3	
Purpurroter Zwiebelapfel	APF1454	1	2	1	1	3	1	x

Cultivars	Acc. No.	Scab leaf		Scab fruit		Mildew leaf		Maximum score 3*
		2012	2013	2012	2013	2012	2013	
Quinte	APF0544	2	7	1	n.d.	3	3	
Quittenförmiger Gulderling	APF1271	2	n.d.	n.d.	n.d.	4	n.d.	
Raafs Liebling	APF1564	5	6	5	5	3	5	
Rafzubin	APF0607	7	8	9	9	6	7	
Ravensberger	APF1272	2	n.d.	1	n.d.	1	n.d.	
Realka	APF0547	1	1	1	1	2	2	x
Red Boy	APF1457	2	1	1	1	5	5	
Red Delicious	APF0139	4	7	3	9	4	2	
Red Delicious Redspur	APF0140	3	7	3	n.d.	4	2	
Red Delicious Starking	APF0659	4	5	1	7	3	1	
Red Delicious Starking Starkrimson	APF0660	4	5	3	5	3	1	
Red Delicious Topred	APF0143	4	5	n.d.	n.d.	3	3	
Red Melba	APF0549	4	6	3	n.d.	3	3	
Red Topaz	APF1458	1	1	1	1	2	3	x
Red Winter	APF0554	5	5	3	3	5	5	
Reders Goldrenette	APF1360	1	n.d.	1	n.d.	2	n.d.	
Regal Prince	APF0209	6	6	6	9	6	5	
Regunde	APF0557	2	1	1	2	2	3	x
Reinette du Mans	APF0567	3	7	1	7	2	3	
Reinette Evagil	APF1089	3	6	3	4	3	4	
Reinette Franche	APF1532	2	3	n.d.	n.d.	4	5	
Reka	APF0558	1	1	1	1	3	3	x
Releta	APF0561	3	7	1	4	6	6	
Relinda	APF0562	1	1	2	2	2	3	x
Remura	APF0564	1	1	1	1	4	3	
Rene	APF0565	1	1	1	1	7	7	
Resista	APF0905	3	n.d.	1	n.d.	3	n.d.	
Retina	APF1550	1	2	1	1	3	4	
Rheingold	APF1190	3	4	1	3	3	4	
Rheinische Schafsnase	APF1405	3	n.d.	1	n.d.	4	n.d.	
Rheinischer Bohnapfel	APF0060	3	6	1	5	4	3	
Rheinischer Krummstiel	APF0944	3	6	1	3	3	4	
Rheinischer Winterrambur	APF1077	1	2	1	1	5	4	
Rheinisches Seidenhemdchen	APF1536	1	3	1	1	5	4	
Ribston Pepping	APF0577	1	3	1	1	7	7	
Riesenboiken	APF0578	1	5	1	n.d.	1	2	
Rioler Mostapfel	APF1471	3	6	1	5	4	6	
Ritters Stolz	APF0579	2	1	1	1	7	8	
Rival	APF1361	3	n.d.	3	n.d.	3	n.d.	
Rome Beauty	APF0583	5	7	3	9	5	7	

Cultivars	Acc. No.	Scab leaf		Scab fruit		Mildew leaf		Maximum score 3*
		2012	2013	2012	2013	2012	2013	
Rosemary Russet	APF1275	3	n.d.	1	n.d.	4	n.d.	
Rosenapfel von Schönbuch	APF1461	4	n.d.	1	n.d.	1	n.d.	
Rotapfel	APF1276	1	n.d.	1	n.d.	5	n.d.	
Rote Alkmene	APF0011	1	4	1	3	3	3	
Rote Alkmene Typ Rosenberg	APF1462	6	n.d.	1	n.d.	2	n.d.	
Rote Clivia	APF0589	4	7	1	9	8	7	
Rote Goldparmäne	APF0590	3	5	1	3	2	5	
Rote Sternrenette	APF0591	2	3	1	1	3	3	x
Roter Altländer Pfannkuchenapfel	APF0014	1	5	1	5	2	1	
Roter Astrachan	APF0592	3	5	1	6	2	6	
Roter Augustiner	APF1464	4	4	1	4	3	n.d.	
Roter Bellefleur	APF0593	1	3	1	1	4	3	
Roter Boskoop	APF0070	1	5	1	1	2	3	
Roter Boskoop Typ Wolf	APF1533	1	4	1	5	3	4	
Roter Cox Orange	APF0122	4	3	1	1	6	6	
Roter Eiserapfel	APF1560	2	6	n.d.	1	3	1	
Roter Finkenwerder	APF1534	1	4	1	3	3	1	
Roter Fuchs	APF1362	2	n.d.	1	n.d.	2	n.d.	
Roter Gravensteiner	APF0117	2	6	1	n.d.	4	5	
Roter Hauptmann	APF0595	4	7	3	9	3	5	
Roter Helios	APF0273	5	7	4	6	4	4	
Roter Holsteiner Cox	APF1427	1	3	1	3	6	5	
Roter Jakob Lebel	APF1430	4	5	1	1	3	4	
Roter Lord Lambourne	APF0600	3	6	1	1	3	4	
Roter Metternich	APF1280	2	n.d.	1	n.d.	3	n.d.	
Roter Mond	APF1466	3	7	1	9	2	3	
Roter Oldenburg	APF0487	7	7	7	9	3	4	
Roter Säfstaholms	APF0601	1	2	1	n.d.	4	4	
Roter Sossenheimer	APF1287	3	4	1	3	1	2	
Roter Stettiner	APF0727	2	6	1	3	2	3	
Roter Trierer Weinapfel	APF1363	2	n.d.	1	n.d.	3	n.d.	
Roter Winterkalvill	APF1136	9	8	7	9	4	6	
Roter Ziegler	APF1535	1	3	1	n.d.	3	2	
Rotfranch	APF1364	1	n.d.	1	n.d.	3	n.d.	
Rotgestreifte Gelbe Schafsnase	APF1048	1	3	1	5	5	6	
Röthaer Blenheim	APF0059	4	7	3	9	3	3	
Rubin	APF0606	6	7	5	n.d.	3	5	
Rubinstar	APF1135	7	7	6	9	7	7	
Ruhm aus Kelsterbach	APF1281	1	4	1	4	3	3	
Ruhm aus Kirchwerder	APF1365	1	1	1	3	4	3	

Cultivars	Acc. No.	Scab leaf		Scab fruit		Mildew leaf		Maximum score 3*
		2012	2013	2012	2013	2012	2013	
Sächsischer Königsapfel	APF0370	2	6	1	3	4	6	
Sacramentsappel	APF1367	5	4	1	n.d.	5	4	
Safranapfel	APF0609	3	6	1	7	5	5	
Salemer Klosterapfel	APF1469	1	4	1	1	3	3	
Salome	APF0611	1	3	1	5	6	5	
Sämling von Hain	APF0613	3	4	1	9	3	4	
Sansa	APF0927	1	3	1	2	6	7	
Santana	APF1052	1	3	1	3	5	5	
Sauergrauech	APF1470	1	3	3	3	3	4	
Schieblers Taubenapfel	APF1472	1	5	1	7	5	4	
Schlesischer Rotborsdorfer	APF0617	2	6	1	7	3	5	
Schlotterapfel	APF1473	2	5	1	5	3	3	
Schmalzprinz	APF0618	1	3	2	1	3	3	x
Schmidtbergers Renette	APF1283	4	4	1	3	4	5	
Schneica	APF0332	5	7	4	9	7	8	
Schneiderapfel	APF0945	1	2	n.d.	3	3	4	
Schöner aus Bath	APF0619	3	3	1	3	3	3	x
Schöner aus Berwangen	APF1539	1	3	1	1	3	4	
Schöner aus Burscheid	APF1540	1	3	1	1	4	3	
Schöner aus Elmpt	APF1538	1	1	1	1	2	1	x
Schöner aus Hadeln	APF1541	1	3	1	1	3	3	x
Schöner aus Haseldorf	APF0620	1	4	n.d.	2	4	5	
Schöner aus Herrnhut	APF0275	1	4	1	1	4	5	
Schöner aus Lutten	APF1475	6	6	1	3	5	6	
Schöner aus Miltenberg	APF0265	2	5	1	n.d.	3	3	
Schöner aus Nordhausen	APF0474	2	4	1	9	3	3	
Schöner aus Pontoise	APF0623	1	4	n.d.	4	4	4	
Schöner aus Wiedenbrück	APF1369	1	3	1	5	4	3	
Schöner aus Wiltshire	APF1117	1	1	1	1	2	3	x
Schöner von Mlejew	APF0621	1	5	1	5	3	3	
Schwarzschillernder Kohlapfel	APF1465	1	7	1	3	2	n.d.	
Schweizer Orangenapfel	APF0625	2	4	1	n.d.	4	5	
Seestermüher Zitronenapfel	APF0627	3	3	3	3	4	4	
Shampion	APF0631	9	7	4	9	3	5	
Shin Indo	APF0632	4	6	2	6	4	5	
Shinsei	APF0633	8	7	8	9	3	4	
Siebenschläfer	APF1370	2	3	1	3	3	3	x
Signe Tillisch	APF0635	4	7	2	9	5	5	
Simirenko	APF0469	6	7	4	9	7	7	
Slava Pobeditelâam	APF0639	1	3	2	4	4	3	

Cultivars	Acc. No.	Scab leaf		Scab fruit		Mildew leaf		Maximum score 3*
		2012	2013	2012	2013	2012	2013	
Sohlander Streifling	APF0641	1	3	1	3	4	3	
Sommermaschanzker	APF1479	2	5	1	1	3	4	
Sommerparmäne	APF1368	3	7	3	9	4	7	
Sommerregent	APF1192	3	7	2	9	2	4	
Sonnenwirtsapfel	APF1371	1	3	1	1	1	1	x
Southern Snap	APF1122	5	8	3	9	5	4	
Spartan	APF0644	3	6	1	n.d.	3	3	
Spätblühender aus Bockedra	APF1481	2	3	1	4	3	3	
Spätblühender Taffetapfel	APF1372	3	1	1	3	3	3	x
Spencer	APF0652	3	8	1	9	5	7	
Sperenza	APF1034	3	8	1	9	5	6	
Spielberger Wieslesapfel	APF1542	2	5	1	1	2	3	
Stahls Winterprinz	APF0655	1	6	1	3	3	4	
Stayman Winesap Blackstayman	APF0663	5	7	4	9	7	6	
Stedinger Prinz	APF1482	4	4	1	5	1	3	
Steinbacher	APF1288	1	1	1	1	6	6	
Steirischer Maschanzker	APF1049	3	5	2	5	4	3	
Stenbock	APF0665	1	4	1	5	3	4	
Stern von Bühren	APF0956	1	3	n.d.	5	3	6	
Stina Lohmann	APF0075	2	3	1	7	1	3	
Strauwalds Parmäne	APF0666	1	7	1	1	3	4	
Süderhex	APF1375	1	3	1	2	3	2	x
Sulinger Grünling	APF1543	2	5	1	1	1	2	
Summerland	APF0667	3	7	1	7	5	7	
Summerred	APF0668	7	7	2	n.d.	4	5	
Sunrise	APF1133	5	6	6	n.d.	3	5	
Suntan	APF0670	3	5	1	n.d.	5	6	
Süßapfel	APF0895	1	3	1	3	3	4	
Tannenkrüger	APF1545	4	5	1	6	2	4	
Telamon	APF0677	6	9	5	9	6	1	
Tenroy	APF0605	6	7	4	9	5	6	
Thurgauer Weinapfel	APF1376	3	4	1	1	3	3	
Topaz	APF0963	1	1	1	1	4	5	
Trajan	APF0682	6	9	6	9	6	3	
Transparent aus Croncels	APF0126	1	5	1	9	3	5	
Trendelburger Kalvill	APF1290	3	3	1	4	5	7	
Trenklesämling	APF1488	2	6	1	5	3	1	
Trennfurter Renette	APF1558	2	3	n.d.	1	6	5	
Triumph aus Luxemburg	APF1291	2	3	1	3	4	3	
Tsugaru	APF0929	3	4	2	9	6	4	

Cultivars	Acc. No.	Scab leaf		Scab fruit		Mildew leaf		Maximum score 3*
		2012	2013	2012	2013	2012	2013	
Tulpenapfel	APF1489	3	5	n.d.	3	3	3	
Tuscan	APF0687	6	9	5	9	6	3	
Tydemans Oktober-Pepping	APF0688	3	4	1	4	5	4	
Uelzener Kalvill	APF1292	7	7	4	8	3	4	
Uelzener Rambur	APF1293	3	5	1	1	3	1	
Uhlhorns Augustkalvill	APF1377	1	n.d.	1	n.d.	4	n.d.	
Ulmer Polizeiapfel	APF1491	1	3	1	8	3	2	
Undine	APF0693	4	7	3	3	6	6	
Unseldapfel	APF1492	1	3	n.d.	4	4	3	
Uphuser Titjenapfel	APF1294	2	n.d.	1	n.d.	2	n.d.	
Vaterapfel	APF1295	2	n.d.	1	n.d.	2	n.d.	
Viking	APF0698	4	8	1	9	3	3	
Virginia Crab	APF1024	3	8	1	9	1	1	
Wachendorfer Renette	APF1546	1	5	1	1	4	4	
Wagenerapfel	APF0704	6	5	6	n.d.	8	7	
Warner's King	APF1326	2	6	1	5	7	7	
Wealthy 4 n Loop	APF0712	3	4	1	n.d.	4	3	
Weidners Goldrenette	APF1378	2	n.d.	1	n.d.	3	n.d.	
Weißer Astrachan	APF1199	2	3	1	n.d.	3	4	
Weißer Matapfel	APF1509	2	n.d.	n.d.	n.d.	2	3	
Weißer Winterglockenapfel	APF0235	1	5	1	5	1	3	
Weißer Winterkalvill	APF0715	8	7	9	9	6	6	
Weißer Wintertaffetapfel	APF0716	4	6	3	7	5	3	
Weißkante	APF1549	1	4	1	1	2	3	
Welschisner	APF0718	1	1	1	1	3	2	x
Welschweinling	APF0719	1	3	n.d.	n.d.	2	1	
Werdersche Wachsrenette	APF1495	4	6	3	9	3	3	
Westfälische Tiefblüte	APF1298	2	n.d.	1	n.d.	1	n.d.	
Westfälischer Gulderling	APF0958	1	3	1	1	2	3	x
Wettringer Taubenapfel	APF1299	1	n.d.	1	n.d.	3	n.d.	
Wiesenapfel	APF1300	1	n.d.	1	n.d.	5	n.d.	
Wildeshausener Goldrenette	APF0959	1	4	1	3	1	1	
Wilkenburger Herbstrenette	APF1380	2	n.d.	1	n.d.	5	n.d.	
Winesap	APF0700	6	7	9	9	3	5	
Winston	APF0722	4	6	1	5	4	4	
Winterbananenapfel	APF0723	7	6	6	n.d.	5	4	
Wintergewürzapfel	APF1496	1	5	1	6	4	5	
Wöbers Rambur	APF0728	3	6	1	9	3	3	
Wohlschmecker aus Vierlanden	APF1381	2	n.d.	1	n.d.	3	n.d.	
Worcester Parmäne	APF0730	1	5	1	5	4	4	

Cultivars	Acc. No.	Scab leaf		Scab fruit		Mildew leaf		Maximum score 3*
		2012	2013	2012	2013	2012	2013	
Wrixparent	APF0732	7	3	1	n.d.	7	5	
York Imperial Colora Red York	APF0113	2	5	1	3	4	3	
Zabergäurenette	APF0736	2	6	1	1	5	5	
Zigeunerin	APF1499	4	n.d.	5	3	2	3	
Zimtrenette	APF0738	2	5	1	1	5	6	
Zuccalmaglios Renette	APF0740	3	5	1	3	5	5	

n.d. not determined

* all data available

Table S2: List of molecular markers used for genotyping. The respective fluorescent dye, the composition of multiplexes and source of primer sequences are shown.

Marker	Dye	Mulitiplex (MP)	Reference
AT20Scar	6-FAM	MP1/Res_mild	Dunemann, Peil, Urbanietz and Garcia-Libreros [27]
CH02b07	6-FAM	MP4	https://sites.unimi.it/camelot/hidras/
CH02b10	ATTO 550	MP5	https://sites.unimi.it/camelot/hidras/
CH02c02a	ATTO 565	MP1	https://sites.unimi.it/camelot/hidras/
CH02c06	ATTO 565	MP5	https://sites.unimi.it/camelot/hidras/
CH02d12	ATTO 532	MP6/Res_mild	https://sites.unimi.it/camelot/hidras/
CH02f06	ATTO 550	MP3	https://sites.unimi.it/camelot/hidras/
CH03c02	6-FAM	MP1/Res_mild	https://sites.unimi.it/camelot/hidras/
CH03d01	ATTO 565	MP2	https://sites.unimi.it/camelot/hidras/
CH04f03	ATTO 532	MP5	https://sites.unimi.it/camelot/hidras/
CH05e03	6-FAM	MP5	https://sites.unimi.it/camelot/hidras/
CH04h02	ATTO 550	Res_mild	https://sites.unimi.it/camelot/hidras/
CH-Vf1	ATTO 532	MP4	Vinatzer*, et al.* [52]
FMACH_Vm2	6-FAM	MP3	Cova, Bandara, Liang, Tartarini, Patocchi, Troggio, Velasco and Komjanc [26]
FMACH_VM3	ATTO 532	MP2	Cova, Bandara, Liang, Tartarini, Patocchi, Troggio, Velasco and Komjanc [26]
HB09	ATTO 550	MP2	Soufflet-Freslon, Gianfranceschi, Patocchi and Durel [28]
Hi07h02	ATTO 532	MP1	https://sites.unimi.it/camelot/hidras/
Hi08e04	ATTO 565	MP6	https://sites.unimi.it/camelot/hidras/
NH030a	ATTO 550	MP4	Yamamoto*, et al.* [53]
NZmsCN943818	ATTO 565	MP3	https://sites.unimi.it/camelot/hidras/
OPB18SCAR	ATTO 532	MP5	Bus, Laurens, van de Weg, Rusholme, Rikkerink, Gardiner, Bassett, Kodde and Plummer [20]
OPL19SCAR	ATTO 532	MP2	Bus, Laurens, van de Weg, Rusholme, Rikkerink, Gardiner, Bassett, Kodde and Plummer [20]
Pl2_F1/R1	6-FAM	MP1/Res_mild	this study
Rvi18-SSR	ATTO 550	MP1	Soriano*, et al.* [54]
SSR-23.03	6-FAM	MP1	Padmarasu, Sargent, Jaensch, Kellerhals, Tartarini, Velasco, Troggio and Patocchi [25]
SSR-23.17	ATTO 532	MP3	Padmarasu, Sargent, Jaensch, Kellerhals, Tartarini, Velasco, Troggio and Patocchi [25]

SSR-24.91	6-FAM	MP2	Padmarasu, Sargent, Jaensch, Kellerhals, Tartarini, Velasco, Troggio and Patocchi [25]
T6	ATTO 565	MP3	Gygax, Gianfranceschi, Liebhard, Kellerhals, Gessler and Patocchi [21]
Vg12_SSR	6-FAM	MP6	Cova*, et al.* [55]
Vg15_SSR	ATTO 550	MP6	Cova, Lasserre-Zuber, Piazza, Cestaro, Velasco, Durel and Malnoy [55]
Vr2C_UTR	ATTO 565	MP2	this study