**S7 Table.** Cases of synonyms found in the identification process in Marrakech and Cordoba collections.

|  |  |  |
| --- | --- | --- |
| **Cultivar (origin)** | **Synonyms (origin)** | **References** |
| Abbadi1 (Syr) | Abou Akfa2 (Syr) |  |
| Aaleth2 (Alg) | Abani2 (Alg) |  |
| Aguenaou2 (Alg) | Grosse du Hamma2 (Alg) |  |
| Alfafara1 (Sp) | Royal de Villena1 (Sp) | [1] |
| Americano2 (It) | Americano Itafir2 (It) and Firenzuolo2 (It) | Firenzuolo [2] |
| Atounsi Setif2 (Alg) | Aghchren de Titest2 (Alg) |  |
| Ayvalik1 (Tur) | Edremit YagliK1 (Tur) | [3] |
| Azapa1 (Arg) | Arauco1 (Chl) | [3] |
| Azeradj2 (Alg) | Bouchouk Soummam2 (Alg) and Aberkane2 (Alg) |  |
| Azeradj Tamokra2 (Alb) | Aghchren d'el Ousseur2 (Alg) |  |
| Beladi2 (Lbn) | Agii Trymithias2 (Cyp), Anafotia2 (Cyp), Analiontas2 (Cyp), Athalassa2 (Cyp), Arediou2 (Cyp), Bakuri2 (Syr), Lagoudera2 (Cyp), Lefkara2 (Cyp), Lefkosia2 (Cyp), Lythrodontas2 (Cyp), Mazotos2 (Cyp), Paliometocho2 (Cyp), Roumani Kana2 (LBN) | Analiontas/Paliometocho and lefkara/ Lythrodontas [4] |
| Belluti1 (Tur) | Yun Gelebi1 (Tur) | [1] |
| Bosana1 (It) | Peranzana1 (It), Palma2 (It), Olieddu2 (It) and Sassarese2 (It) | Peranzana and Sassarese [5] and Palma [6] |
| Buga12 (HRV) | Plominka Bjelica2 (HRV) | [7] |
| Callosina1 (Sp) | Dahbia2 (Mor) |  |
| Cerezuela1 (Sp) | Morejona12 (Sp) | [1] |
| Changlot Real12 (Sp) | Torcio de Cabra1 (Sp) | [1] |
| Chetoui12 (Tun) | Blanquette de gastu2 (Alg), Blanquette de Guelma2 (Alg), Bouchoukra2 (Alg) and Chaîbi Antha2 (Tun) | Blanquette de gastu and Blanquette de Guelma [8] |
| Cirujal1 (Sp) | Throumbolia2 (Gre), Gremignolo di Bolgheri2 (It), Grossolana2 (It) |  |
| Confetto2 (It) | Tonda Di Cagliari2 (It), Maiorca2 (It), Manna2 (It), Strogylolia2 (Gre), Sivigliana da Mensa2 (It) and Nera di Gonnos2 (It) | Tonda Di Cagliari and Maiorca [9], Nera di Gonnos by [10] and Manna by [11,19] |
| Cordovil de Serpa12 (Por) | Madural1 (Por) | [12] |
| Craputea2 (It) | Leccione2 (It) |  |
| Dhokar2 (Tun) | Dhokar Tataouine2 (Tun) |  |
| Dressi2 (Tun) | Deras2 (Tun) and R'khami2 (Tun) |  |
| Ferkani2 (Alg) | Jemri bouchouka2 (Tun) and Mekki2 (Alg) |  |
| Frantoio12 (It) | Frantoio A. Corsini1 (It), Oblonga1 (It), Maelia1 (Isr), Razzola1 (It), Augellina2 (It), Arancino2 (It), Cailletier2 (Fr), Correggiolo di pallesse2 (It), Corsicana da olio2 (It), Larcianese2 (It), Puntino2 (It), Razzo2 (It) and San Lazzaro2 (It) | Frantoio A. Corsini, Oblonga, Maelia, and Razzola [1,13], Corsicana da olio [10], Razzo [14], Larcianese [2] and Correggiolo di pallesse [15] |
| Gemlik1 (Tur) | Samsun Tuzlamalik1 (Tur), Kfar Zita2 (Syr) | [1] |
| Gerboui1 (Tun) | Marsaline12 (Tun) | [1] |
| Giarraffa2 (It) | Pizzo di corvo2 (It) | [16,17] |
| Gordal de Granada1 (Sp) | Manzanilla del Centro12 (Sp), Manzanilla de Jaén1 (Sp), Gordalejo12 (Sp) and Nabali1 (Isr) | [1] |
| Gordal Sevillana12 (Sp) | Santa Caterina12 (It) | [12, 18] |
| Grappolo12 (It) | Leccio di Corno12 (It) and Marzio2 (It) | Leccio di Corno[18] |
| Hamra2 (Alg) | Boukaïla2 (ALG) and Bouricha2 (Alg) |  |
| Idleb2 (Syr) | Khello2 (Syr), Killin2 (Syr) and Djbali kini2 (Syr) |  |
| Itrana12 (It) | Corsicana da mensa2 (It), Nera di Oliena2 (It), Terza grande2 (It), Terza piccola2 (It), Tonda di Villacidro2 (It) and Paschixedda2 (It) | Corsicana da mensa, Nera di Oliena and Tonda di Villacidro [10], Terza piccolo [15,19] and Paschixedda [15] |
| Jlot2 (Syr) | Faruke2 (Syr), Djlot shami2 (Syr), Shami Modabl2 (Syr), Korakou2 (Cyp) |  |
| Kaissy2 (Syr) | Alkkei2 (Syr) |  |
| Kalokerida12 (Gre) | Olivière2 (Fr) |  |
| Kato Drys12 (Cyp) | Klirou1 (Cyp), Flasou2 (Cyp), Kiti2 (Cyp), Evrychou2 (Cyp), Meniko2 (Cyp) and Peristerona2 (Cyp) | Klirou [1], Flasou and evryshou [4] |
| Leccino12 (It) | Gremignolo2 (It) |  |
| Lechín de Granada12 (Sp) | Dafnelia2 (Gre) |  |
| Lumbardeska2 (HRV) | Samo Nova Vas2 (HRV) |  |
| Maiatica di Ferrandina2 (It) | Žabarka2 (HRV) and Uljarica2 (HRV) |  |
| Manzanilla Cacereña12 (Sp) | Azeitera12 (Por) and Negrinha12 (Sp, Por) | [3, 18] |
| Manzanilla de Sevilla12 (Sp) | Chesna12 (Sp) and Redondil1 (Sp, Por) | [1, 18] |
| Maurino12 (It) | Ginestrino2 (It) and Boise2 (Slv) | Ginestrino [15] |
| Menya1 (Sp) | Manzanilla Picua1 (Sp) | [1] |
| Mignolo Cerretano2 (It) | Gremigna Tonde2 (It) |  |
| Mixani1 (Alb) | Ulliri i Bardhe Berat1 (Alb) | [1] |
| Mollar de Cieza12 (Sp) | Meloncillo12 (Sp), Ojúa1 (Sp) and Verdalón1 (Sp) | [1] |
| Moraiolo12 (It) | Carboncella1 (It), Moraiolo T. Corsini1 (It), Morcaio2 (It), Filare2 (It), Tondello2 (It), Alethriko2 (Cyp) | Carboncella [3] and Moraiolo T. Corsini [1] |
| Morchiaio2 (It) | Mezanica2 (HRV), Sitnica2 (HRV), Giogolino2 (It), Drobnica2 (HRV and Slv) | Sitnica and Drobnica [20] |
| Moresca2 (It) | Nerba Catanese2 (It) and Olivo di Castiglione2 (It) | Nerba Catanese [21] and Olivo di Castiglione [15] |
| Morisca12 (Sp) | Santulhana2 (Por) |  |
| Morona1 (Sp) | Llorón de Ronda1 (Sp) | [1] |
| Nocellara del Belice2 (It) | Nocellara Messinese2 (It) and Misnica2 (Slv) |  |
| Ocal12 (Sp) | Gordal de Archidona1 (Sp) and Verdal de Alhama12 (Sp) | [1] |
| Olivastra di Montalcino2 (It) | Olivastra Seggianese2 (It) and Oleaster2 (HRV) | Olivastra Seggianese [22] |
| Passulunara2 (It) | Castriciana2 (It) |  |
| Picholine Marocaine12 (Mor) | Alameño de Marchena12 (Sp), Mision de San Vicente1 (Mex), Mission Nieland1 (USA), Sigoise12 (DAZ), Haouzia12 (Mor), Menara12 (Mor), Cañivano Blanco1 (Sp), Aghenfas2 (ALG), Hamrani2 (Mor), Limli2 (ALG), Sinawy2 (Egy), Zitoune DK2 (Mor), Zitoune Kellal2 (Mor) | Alameño de Marchena, Mision de San Vicente, Mission Nieland [3,12,18], Sigoise [23], Haouzia and Menara [24,25], and Zitoune [26] |
| Picual12 (Sp) | Olivo Macho de Santisteban Pto12 (Sp), Picual de Hoja Oscura1 (Sp), Picual de Hoja Clara12 (Sp) | [1,27] |
| Picudo12 (Sp) | Picudo de Fruto Rojo1 (Sp) | [27] |
| Plementa Bjelica1 (HRV) | Bianchera2 (It) | [7,28] |
| Ravece2 (It) | Rotondella2 (It) |  |
| Rechino12 (Sp) | Palomillo1 (Sp) | [1] |
| Remmani 2 (Syr) | Dermlali2 (Syr) |  |
| Ronde de Miliana2 (Alg) | Longue de Miliana2 (Alg) |  |
| Rossellino2 (It) | Ciliegino2 (It), Pesciatino2 (It) and Rosino2 (It) | Rosino [29] |
| Sant Agostino12 (It) | Amphisis2 (Gre) |  |
| Tabelout2 (Alg) | Takesrit2 (Alg) |  |
| Uovo di Piccione12 (It) | Novo1 (Isr) | [1] |
| Valanolia1 (Gre) | Çakir1 (Tur) | [3,18] |
| Varudo1 (Sp) | Picudo de Montoro1 (Sp) | [1] |
| Verdial de Badajoz1 (Sp) | Llorón de Iznalloz1 (Sp) and Corneja1 (Sp) | [1] |
| Verdial de Huévar2 (Sp) | Verdial Alentejana2 (Por) | [30,31] |
| Villalonga1 (Sp) | Branquita de Elvas1 (Por) | [3] |
| Zael Al Muhra2 (Syr) | Munkar Kak2 (Syr) |  |
| Zaity12 (Syr) | Khuokhe2 (Syr) |  |
| **Total (78)** | **Total (175)** |  |

1 Cultivars observed in WOGBC.

2 Cultivars observed in WOGBM.

**References**

1. Trujillo I, Ojeda MA, Urdiroz NM, Potter D, Barranco D, Rallo L, et al. Identification of the Worldwide Olive Germplasm Bank of Córdoba (Spain) using SSR and morphological markers. Tree Genet Genomes. 2014;10(1): 141-155.
2. Cantini C, Cimato A, Autino A, Redi A, Cresti. Assessment of the Tuscan olive germplasm by microsatellite markers reveals genetic identities and different discrimination capacity among and within cultivars. J Amer Soc Hort Sci. 2008;133(4): 598-604.
3. Barranco D, Cimato A, Fiorino P, Rallo L, Touzani A, Castañeda C, et al. World olive catalogue of olive varieties. International Olive Oil Council, Madrid, Spain; 2000.
4. Anestiadou K, Nikoloudakis N, Hagidimitriou M, Katsiotis A. Monumental olive trees of Cyprus contributed to the establishment of the contemporary olive germplasm. Plos One. 2017;12(11): e0187697.
5. Erre P, Chessa I, Munoz-Diez C, Belaj A, Rallo L, Trujillo I. Genetic diversity and relationships between wild and cultivated olives (*Olea europaea* L.) in Sardinia as assessed by SSR markers. Genet Resour Crop Evol. 2010;57: 41–54.
6. Chessa I, Erre P, Nieddu M, Nieddu G. Microsatellites characterization of Sardinia olive genetic resources. Olivebioteq. 2006;1: 147-150.
7. Poljuha D, Sladonja B, Seti E, Miloti A, Bandelj D, Jakse J, et al. DNA fingerprinting of olive varieties in Istria (Croatia) by microsatellite marker. Scientia Hortic. 2008;115(3): 223-230.
8. Cimato A and Attilio C. Conservation, characterization, collection and utilization of the genetic resources in olive. Projet CFC/IOC/03; 2003. pp 62.
9. Angiolillo A, Baldoni L, Bandino G, Mulas M. Analisi molecolare con marcatori AFLP delle risorse genetiche di olivo della Sardegna. 4° Convegno Nazionale Biodiversità, germoplasma locale e sua valorizzazione; 2000: 413-416.
10. Baldoni L. Analisi molecolare delle cultivar di olivo italiane. Tornata di Studio nel Lazio, Viterbo 2002; 2004: 81-96.
11. Milella A. L'olivo in Sardegna. L’Italia Agricola; 1965;102: 515-525.
12. Trujillo I, Rallo L, Arus P. Identifying olive cultivars by isozyme analysis. J Am Soc Hortic Sci. 1995;120: 318–324.
13. Barranco D, Trujillo I, Rallo L. Are ‘Oblonga’ and ‘Frantoio’ the same cultivar? HortScience. 2000;35: 1323-1325.
14. Bracci F. Le varietà d’olivo coltivate in Toscana. Le varietà di olivo coltivate in Italia; 1937: 3-16.
15. Muzzalupo I, Vendramin GG, Chiappetta A. Genetic Biodiversity of Italian Olives (*Olea europaea*) Germplasm Analyzed by SSR Markers. Hindawi, Scientific World J. 2014. Article ID 296590, pp 12.
16. Perri E, Lombardo N, Palopoli A, Miele D. Indagine sul germoplasma di olivo della Sicilia mediante marcatori RAPD. 5° Convegno Nazionale Biodiversità ; 1999: 299-304.
17. Fodale AS, Mulé R, Muzzalupo I, Pellegrino M, Perri E (2006) Caratterizzazione del germoplasma di olivo della Sicilia mediante marcatori RAPD. Italus Hortus. 2006;13: 239-241.
18. Belaj A, Satovic Z, Rallo L, Trujillo I. Genetic diversity and relationships in olive (*Olea europaea* L.) germplasm collections as determined by randomly amplified polymorphic DNA. Theor Appl Genet. 2002;105: 638–644.
19. Muzzalupo I, Stefanizzi F, Perri E. Evaluation of Olives Cultivated in Southern Italy by Simple Sequence Repeat Markers. HortScience. 2009;44(3): 582-588.
20. Stambuk S, Sutlovic D, Bakaric P, Petricevic S, Andelinovic S. Forensic botany: potential usefulness of microsatellite-based genotyping of Croatian olive (*Olea europaea* L.) in forensic casework. Croat Med J. 2007;48(4): 556-562.
21. Lombarda P, Fontanazza G. I marcatori AFLP nello studio della biodiversità di olivo (*Olea europaea* L.) in Sicilia con particolare riferimento al germoplasma Ennese. Conv. Naz. Germoplasma olivicolo e tipicità dell’olio. 2003; 1: 196-201.
22. Cimato A, Cantini C, Sani G. L’olivo in Toscana: il germoplasma autoctono. 2001; pp 217.
23. Besnard G, Breton C, Baradat P, Khadari B, Bervillé A. Cultivar identification in the olive (*Olea europaea* L.) based on RAPDS. J Am Soc Hortic Sci. 2001;126: 668-675.
24. Charafi J, El Meziane A, Moukhli A, Boulouha B, El Modafar C, Khadari B. Menara gardens: a Moroccan olive germplasm collection identified by a SSR locus-based genetic study. Genet Resour Crop Evol. 2008;55: 893-900.
25. Zine El Aabidine A, Charafi J, Grout C, Doligez A, Santoni S, Moukhli A, et al. Construction of a Genetic Linkage Map for the Olive Based on AFLP and SSR Markers. Crop Science. 2010;50(6): 2291-2302.
26. Khadari B, Charafi J, Moukhli A and Ater M. Substantial genetic diversity in cultivated Moroccan olive despite a single major variety: a paradoxical situation evidenced by the use of SSR loci. Tree Genet Genomes. 2008;4: 213-221.
27. Barranco D, Trujillo I, Rallo L. Elaiografía Hispanica. In: Rallo L, Barranco D, Caballero JM, Del Rio C, Martin A, Tous J, Trujillo I (eds) Variedades de olivo en España. Mundi-Prensa, Madrid; 2005.
28. Sarri V, Baldoni L, Porceddu A, Cultrera NGM, Contento A, Frediani M, et al. Microsatellite markers are powerful tools for discriminating among olive cultivars and assigning them to geographically defined populations. Genome. 2006;49: 1606-1615.
29. Tavanti G. Trattato teorico-pratico completo sull'ulivo 1. 1819; pp 259.
30. Barranco D, Fernandez-Escobar R, Rallo L. El cultivo del olivo. 1997; pp 605.
31. Belaj A, Trujillo I, De la Rosa R, Rallo L. Polymorphism and Discrimination capacity of randomly amplified polymorphic markers in an olive germplasm bank. J Amer Soc Hort Sci. 2001;126(1): 64-71.