

**Genetic diversity of avocado (*Persea americana* Mill.) germplasm in Vietnam using RAPD and ISSR molecular markers**

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**Supplemental Table 1.** Matrix of genetic similarity among 28 avocado cultivars using RAPD markers calculated by Jaccard's similarity coefficient.

	O34	Lamb Hass	Hass	GEM	TA17	Reed	Pinker-ton	GA	Thanh-Bich	Ruotdo	TA40	CuBa	Shar-wil	Edran-ol
O34	1.000													
Lamb Hass	0.682	1.000												
Hass	0.676	<b>0.903</b>	1.000											
GEM	0.767	0.756	0.750	1.000										
TA17	0.750	0.761	0.778	0.688	1.000									
Reed	0.744	0.767	0.739	0.807	0.699	1.000								
Pinkerton	0.608	0.813	0.818	0.682	0.756	0.659	1.000							
GA	0.716	0.807	0.801	0.722	0.773	0.790	0.744	1.000						
ThanhBich	0.778	0.756	0.750	0.795	0.733	0.807	0.670	0.801	1.000					
Ruotdo	0.767	0.710	0.705	0.761	0.778	0.761	0.659	0.767	0.807	1.000				
TA40	0.744	0.699	0.693	0.761	0.722	0.773	0.636	0.744	0.795	0.807	1.000			
CuBa	0.591	0.670	0.710	0.574	0.682	0.585	0.733	0.670	0.608	0.619	0.608	1.000		
Sharwil	0.710	0.801	0.773	0.807	0.733	0.784	0.761	0.767	0.750	0.773	0.773	0.653	1.000	
Edranol	0.636	0.773	0.778	0.688	0.716	0.676	0.858	0.727	0.688	0.653	0.619	0.705	0.778	1.000
Fuerte	0.756	0.722	0.705	0.818	0.710	0.784	0.648	0.722	0.716	0.727	0.705	0.585	0.841	0.710
Blackman	0.807	0.705	0.676	0.744	0.705	0.744	0.642	0.727	0.790	0.778	0.790	0.614	0.756	0.659
TA21	0.699	0.744	0.750	0.648	0.756	0.670	0.670	0.722	0.705	0.659	0.682	0.710	0.705	0.710
TA1	0.778	0.733	0.739	0.739	0.744	0.761	0.648	0.722	0.795	0.784	0.761	0.642	0.784	0.688
TA02-20	0.801	0.688	0.693	0.739	0.699	0.784	0.602	0.733	0.795	0.830	0.784	0.585	0.761	0.631
TA-Hb1	0.773	0.670	0.688	0.767	0.693	0.733	0.597	0.716	0.824	0.801	0.767	0.557	0.733	0.636
TA-Hb2	0.756	0.699	0.716	0.727	0.699	0.750	0.625	0.733	0.795	0.773	0.727	0.631	0.739	0.642
TA-Hb3	0.648	0.773	0.790	0.608	0.739	0.653	0.722	0.705	0.688	0.653	0.653	0.682	0.710	0.716
TA-Hb4	0.580	0.716	0.744	0.608	0.693	0.642	0.676	0.693	0.676	0.665	0.631	0.693	0.722	0.682
TA-Hb5	0.756	0.676	0.693	0.716	0.665	0.761	0.602	0.699	0.784	0.761	0.739	0.608	0.739	0.619
TA-Hb6	0.756	0.653	0.636	0.693	0.642	0.761	<b>0.534</b>	0.688	0.784	0.750	0.739	0.540	0.705	0.540
TA-Hb7	0.619	0.642	0.625	0.568	0.653	0.659	0.636	0.642	0.636	0.636	0.636	0.653	0.648	0.642
Booth 7	0.744	0.688	0.682	0.716	0.710	0.750	0.580	0.688	0.795	0.750	0.750	0.597	0.727	0.608
Duke 7	0.739	0.659	0.642	0.733	0.625	0.710	0.608	0.682	0.722	0.631	0.688	0.568	0.699	0.636

	Fuerte	Blackman	TA21	TA1	TA02-20	TA-Hb1	TA-Hb2	TA-Hb3	TA-Hb4	TA-Hb5	TA-Hb6	TA-Hb7	Booth 7	Duke 7
O34														
Lamb Hass														
Hass														
GEM														
TA17														
Reed														
Pinkerton														
GA														
ThanhBich														
Ruotdo														
TA40														
CuBa														
Sharwil														
Edranol														
Fuerte	1.000													
Blackman	0.767	1.000												
TA21	0.670	0.699	1.000											
TA1	0.761	0.813	0.761	1.000										
TA02-20	0.795	0.824	0.693	0.864	1.000									
TA-Hb1	0.744	0.795	0.676	0.847	0.869	1.000								
TA-Hb2	0.795	0.813	0.693	0.875	0.841	0.835	1.000							
TA-Hb3	0.653	0.670	0.801	0.722	0.653	0.670	0.733	1.000						
TA-Hb4	0.642	0.659	0.790	0.756	0.676	0.670	0.688	0.773	1.000					
TA-Hb5	0.773	0.813	0.693	0.875	0.875	0.847	0.886	0.699	0.699	1.000				
TA-Hb6	0.727	0.778	0.659	0.818	0.852	0.824	0.864	0.665	0.631	0.852	1.000			
TA-Hb7	0.625	0.653	0.705	0.716	0.659	0.642	0.716	0.676	0.733	0.705	0.670	1.000		
Booth 7	0.716	0.778	0.727	0.841	0.830	0.778	0.841	0.688	0.699	0.830	0.875	0.716	1.000	
Duke 7	0.744	0.750	0.653	0.733	0.744	0.739	0.756	0.602	0.602	0.733	0.722	0.665	0.733	1.000

**Supplemental Table 2.** Matrix of genetic similarity among 28 avocado cultivars using ISSR markers calculated by Jaccard's similarity coefficient.

	O34	Lamb Hass	Hass	GEM	TA17	Reed	Pinker-ton	GA	Thanh-Bich	Ruotdo	TA40	CuBa	Shar-wil	Edran-ol
O34	1.000													
Lamb Hass	0.759	1.000												
Hass	0.766	<b>0.924</b>	1.000											
GEM	0.731	0.890	0.897	1.000										
TA17	0.814	0.766	0.772	0.738	1.000									
Reed	0.731	0.821	0.841	0.862	0.752	1.000								
Pinkerton	0.766	0.855	0.876	0.897	0.759	0.828	1.000							
GA	0.779	0.841	0.876	0.869	0.772	0.883	0.890	1.000						
ThanhBich	0.759	0.724	0.717	0.724	0.807	0.724	0.745	0.731	1.000					
Ruotdo	0.814	0.779	0.800	0.738	0.821	0.766	0.731	0.759	0.862	1.000				
TA40	0.786	0.724	0.731	0.710	0.779	0.724	0.676	0.731	0.766	0.834	1.000			

CuBa	0.841	0.779	0.786	0.766	0.793	0.752	0.759	0.800	0.779	0.834	0.779	1.000		
Sharwil	0.717	0.848	0.869	0.876	0.738	0.793	0.883	0.855	0.724	0.738	0.697	0.752	1.000	
Edranol	0.752	0.814	0.848	0.828	0.745	0.786	0.848	0.807	0.731	0.731	0.717	0.745	0.883	1.000
Fuerte	0.752	0.841	0.862	0.855	0.772	0.800	0.848	0.821	0.745	0.772	0.745	0.745	0.910	0.890
Blackman	0.800	0.710	0.717	0.683	0.793	0.697	0.703	0.745	0.766	0.793	0.752	0.793	0.724	0.731
TA21	0.752	0.662	0.683	<b>0.634</b>	0.828	0.662	0.655	0.669	0.759	0.786	0.717	0.786	0.676	0.697
TA1	0.786	0.738	0.759	0.779	0.752	0.724	0.759	0.772	0.821	0.821	0.779	0.848	0.793	0.772
TA02-20	0.786	0.738	0.745	0.738	0.807	0.738	0.745	0.772	0.779	0.807	0.738	0.807	0.738	0.745
TA-Hb1	0.731	0.724	0.759	0.738	0.766	0.752	0.731	0.772	0.793	0.848	0.738	0.793	0.738	0.717
TA-Hb2	0.814	0.752	0.772	0.766	0.779	0.752	0.786	0.814	0.793	0.821	0.779	0.834	0.807	0.786
TA-Hb3	0.772	0.766	0.745	0.710	0.766	0.738	0.703	0.745	0.752	0.807	0.766	0.807	0.697	0.717
TA-Hb4	0.800	0.793	0.814	0.793	0.793	0.779	0.800	0.841	0.793	0.834	0.779	0.862	0.807	0.814
TA-Hb5	0.779	0.717	0.724	0.717	0.772	0.717	0.738	0.752	0.828	0.869	0.786	0.841	0.745	0.724
TA-Hb6	0.779	0.717	0.724	0.745	0.759	0.745	0.766	0.793	0.800	0.814	0.759	0.828	0.772	0.752
TA-Hb7	0.766	0.745	0.752	0.759	0.731	0.745	0.766	0.779	0.772	0.800	0.772	0.786	0.828	0.779
Booth 7	0.752	0.759	0.738	0.759	0.759	0.759	0.752	0.766	0.800	0.814	0.745	0.814	0.759	0.752
Duke 7	0.676	0.724	0.703	0.724	0.669	0.724	0.731	0.703	0.710	0.710	0.683	0.710	0.766	0.745
	Fuerte	Blackman	TA21	TA1	TA02-20	TA-Hb1	TA-Hb2	TA-Hb3	TA-Hb4	TA-Hb5	TA-Hb6	TA-Hb7	Booth 7	Duke 7

O34

Lamb Hass

Hass

GEM

TA17

Reed

Pinkerton

GA

ThanhBich

Ruotdo

TA40

CuBa

Sharwil

Edranol

Fuerte 1.000

Blackman 0.731 1.000

TA21 0.683 0.745 1.000

TA1 0.772 0.807 0.759 1.000

TA02-20 0.759 0.779 0.772 0.876 1.000

TA-Hb1 0.731 0.834 0.759 0.834 0.834 1.000

TA-Hb2 0.814 0.848 0.772 0.848 0.848 0.862 1.000

TA-Hb3 0.717 0.779 0.759 0.779 0.834 0.779 0.807 1.000

TA-Hb4 0.814 0.821 0.745 0.848 0.834 0.848 0.890 0.793 1.000

TA-Hb5 0.752 0.800 0.752 0.883 0.828 0.855 0.841 0.772 0.841 1.000

TA-Hb6	0.752	0.786	0.752	0.883	0.869	0.897	0.883	0.814	0.869	0.876	1.000
TA-Hb7	0.779	0.786	0.738	0.855	0.828	0.828	0.855	0.814	0.841	0.807	0.890
Booth 7	0.793	0.814	0.738	0.800	0.814	0.855	0.869	0.800	0.869	0.848	0.876
Duke 7	0.814	0.697	0.676	0.724	0.738	0.710	0.752	0.683	0.752	0.745	0.717

**Supplemental Table 3.** Matrix of genetic similarity among 28 avocado cultivars using combined RAPD and ISSR markers calculated by Jaccard's similarity coefficient.

Pinkerton

GA

ThanhBich

Ruotdo

TA40

CuBa

Sharwil

Edranol

Fuerte 1.000

Blackman 0.751 1.000

TA21 0.676 0.720 1.000

TA1 0.766 0.810 0.760 1.000

TA02-20 0.779 0.804 0.729 0.869 1.000

TA-Hb1 0.738 0.813 0.713 0.841 0.854 1.000

TA-Hb2 0.804 0.829 0.729 0.863 0.844 0.847 1.000

TA-Hb3 0.682 0.720 0.782 0.748 0.735 0.720 0.766 1.000

TA-Hb4 0.720 0.732 0.769 0.798 0.748 0.751 0.779 0.782 1.000

TA-Hb5 0.763 0.807 0.720 0.879 0.854 0.850 0.866 0.732 0.763 1.000

TA-Hb6 0.738 0.782 0.701 0.847 0.860 0.857 0.872 0.732 0.738 0.863 1.000

TA-Hb7 0.695 0.713 0.720 0.779 0.735 0.726 0.779 0.738 0.782 0.751 0.769 1.000

Booth 7 0.751 0.794 0.732 0.822 0.822 0.813 0.854 0.738 0.776 0.838 0.875 0.782 1.000

Duke 7 0.776 0.726 0.664 0.729 0.741 0.726 0.754 0.639 0.670 0.738 0.720 0.688 0.745 1.000

