

Mostert, L., Carter, K., Froneman, E., Joliffe, J. B., Costa, C., Havenga, M., Carlucci, A., Van Baalen, M., Keet, M., & Halleen, F. (2025). Fungicide sensitivity assessment and susceptibility of newly bred olive lines, to improve anthracnose management in South Africa. *Phytopathologia Mediterranea* 64(3): 615–629. doi: 10.36253/phyto-16571

Table S1. Reference sequences of *Colletotrichum* species used in the phylogenetic analyses.

<i>Colletotrichum</i> species complex	<i>Colletotrichum</i> species	Culture number	GenBank accession number		
			ACT	ITS	TUB2
acutatum	<i>C. abscissum</i>	COAD 1876	KP843139	KP843124	KP843133
acutatum	<i>C. abscissum</i>	COAD 1877*	KP843141	KP843126	KP843135
acutatum	<i>C. acerbum</i>	CBS 128530, ICMP 12921, PRJ 1199.3*	JQ949780	JQ948459	JQ950110
acutatum	<i>C. acutatum</i>	CBS 127545, CPC 13947	JQ949704	JQ948383	JQ950034
acutatum	<i>C. acutatum</i>	CBS 112996, ATCC 56816, STE-U 5292*	JQ005839	JQ005776	JQ005860
acutatum	<i>C. australe</i>	CBS 131325, CPC 19820	JQ949777	JQ948456	JQ950107
acutatum	<i>C. australe</i>	CBS 116478, HKUCC 2616*	JQ949776	JQ948455	JQ950106
acutatum	<i>C. brisbanense</i>	CBS 292.67, DPI 11711*	JQ949612	JQ948291	JQ949942
acutatum	<i>C. cairnsense</i>	RIP 63642*, CBS 140847	KU923716	KU923672	KU923688
acutatum	<i>C. cairnsense</i>	BRIP 63643	KU923717	KU923673	KU923689
acutatum	<i>C. chrysanthemi</i>	CBS 126518, PD 84/520	JQ949592	JQ948271	JQ949922
acutatum	<i>C. chrysanthemi</i>	IMI 364540, CPC 18930*	JQ949594	JQ948273	JQ949924
acutatum	<i>C. cosmi</i>	CBS 853.73, PD 73/856*	JQ949595	JQ948274	JQ949925
acutatum	<i>C. costaricense</i>	CBS211.78, IMI309622	JQ949502	JQ948181	JQ949832
acutatum	<i>C. costaricense</i>	CBS 330.75*	JQ949501	JQ948180	JQ949831
acutatum	<i>C. cuscatae</i>	IMI 304802, CPC 18873*	JQ949516	JQ948195	JQ949846
acutatum	<i>C. fioriniae</i>	CBS 293.67, DPI 13120	JQ949631	JQ948310	JQ949961
acutatum	<i>C. fioriniae</i>	CBS 128517, ARSEF 10222, ERL 1257, EHS 58*	JQ949613	JQ948292	JQ949943
acutatum	<i>C. godetiae</i>	CBS 133.44*	JQ949723	JQ948402	JQ950053
acutatum	<i>C. guajave</i>	IMI 350839*	JQ949591	JQ948270	JQ949921
acutatum	<i>C. indonesiense</i>	CBS 127551, CPC 14986*	JQ949609	JQ948288	JQ949939
acutatum	<i>C. johnstonii</i>	CBS 128532, ICMP 12926, PRJ 1139.3*	JQ949765	JQ948444	JQ950095
acutatum	<i>C. kinghornii</i>	CBS 198.35*	JQ949775	JQ948454	JQ950105
acutatum	<i>C. laticiphilum</i>	CBS 129827, CH2	JQ949611	JQ948290	JQ949941
acutatum	<i>C. laticiphilum</i>	CBS 112989, IMI 383015, STE-U 5303*	JQ949610	JQ948289	JQ949940
acutatum	<i>C. limetticola</i>	CBS 114.14*	JQ949514	JQ948193	JQ949844
acutatum	<i>C. lupini</i>	CBS 109226, BBA 71249	JQ949479	JQ948158	JQ949809
acutatum	<i>C. lupini</i>	CBS 109225, BBA 70884*	JQ949476	JQ948155	JQ949806
acutatum	<i>C. melonis</i>	Col 20	KC205071	KC204986	KC205054
acutatum	<i>C. melonis</i>	CBS 159.84*	JQ949515	JQ948194	JQ949845
acutatum	<i>C. nymphaeae</i>	IMI 370491, CPC 18932	JQ949525	JQ948204	JQ949855
acutatum	<i>C. nymphaeae</i>	CBS 515.78*	JQ949518	JQ948197	JQ949848
acutatum	<i>C. paranaense</i>	CBS 134729, Col 19, CPC 20901*	KC205077	KC204992	KC205060
acutatum	<i>C. paranaense</i>	IMI 384185, CPC 18937	JQ949512	JQ948191	JQ949842
acutatum	<i>C. paxtonii</i>	CBS 502.97, LARS 58	JQ949607	JQ948286	JQ949937
acutatum	<i>C. paxtonii</i>	IMI 165753, CPC 18868*	JQ949606	JQ948285	JQ949936
acutatum	<i>C. phormii</i>	CBS 102054	JQ949769	JQ948448	JQ950099
acutatum	<i>C. phormii</i>	CBS 118194, AR 3546*	JQ949767	JQ948446	JQ950097
acutatum	<i>C. pyricola</i>	CBS 128531, ICMP 12924, PRJ 977.1*	JQ949766	JQ948445	JQ950096
acutatum	<i>C. rhombiforme</i>	CBS 129953, PT250, RB011*	JQ949778	JQ948457	JQ950108
acutatum	<i>C. salicis</i>	CBS 607.94*	JQ949781	JQ948460	JQ950111
acutatum	<i>C. scovillei</i>	CBS120708, HKUCC10893, Mj6	JQ949590	JQ948269	JQ949920
acutatum	<i>C. scovillei</i>	CBS 126529, PD 94/921-3, BBA 70349*	JQ949588	JQ948267	JQ949918
acutatum	<i>C. simmondsii</i>	IMI 313840, CPC 18875	JQ949605	JQ948284	JQ949935

<i>Colletotrichum</i> species complex	<i>Colletotrichum</i> species	Culture number	GenBank accession number		
			ACT	ITS	TUB2
acutatum	<i>C. simmondsii</i>	BRIP 28519, CBS 122122*	JQ949597	JQ948276	JQ949927
acutatum	<i>C. sloanei</i>	IMI 364297,CPC 18929*	JQ949608	JQ948287	JQ949938
acutatum	<i>C. tamarilloi</i>	CBS 129956, Tom-9, RB112	JQ949511	JQ948190	JQ949841
acutatum	<i>C. tamarilloi</i>	CBS 129814, T.A.6*	JQ949505	JQ948184	JQ949835
acutatum	<i>C. walleri</i>	CBS 125472, BMT(HL)19*	JQ949596	JQ948275	JQ949926
	<i>C.orchidophilum</i>	CBS 632.80	JQ949472	NR_111729	JQ949802

* Type species.

Table S2. Fungicide concentrations used for inhibition of mycelial growth and conidial germination assays.

Fungicide (active ingredients)	Concentrations (µg a.i./mL)	
	Mycelial growth inhibition	Conidial germination inhibition
boscalid & pyraclostrobin	0.38, 1.15, 2.3, 3.46, 4.6, 6	0.005, 0.05, 0.5, 5, 50, 150
dodine	600, 1000, 1500, 2000, 2500, 3000	0.05, 0.1, 1, 5, 10, 50
cyprodinil & fludioxinil	0.001, 0.01, 0.5, 1, 10	0.01, 0.1, 0.3, 0.6, 2
thiram	0.5, 1, 50, 500, 1000, 1500	0.001, 0.05, 0.1, 0.5, 1, 10

Table S3. Conidia measurements of *C. acutatum* made from acervuli sporulating on carnation leaves after three weeks at 25°C.

STE-U number	Conidia (length x width) µm (30 conidia measured per isolate)
8061	(13.04-)14.07-15.80(-16.79) x (3.59-)3.96-4.44(-4.87)
8064	(12.93-)13.79-16.20(-18.41) x (3.83-)4.20-4.73(-4.97)
8069	(11.95-)13.73-15.68(-17.98) x (4.03-)4.27-4.73(-5.07)
8070	(10.40-)12.50-15.26(-17.08) x (3.84-)4.10-4.63(-5.01)
8220	(12.32-)14.06-17.02(-18.67) x (4.32-)4.81-5.38(-5.62)
8221	(12.67-)14.35-16.46(-18.21) x (4.24-)4.66-5.21(-5.57)
8226	(12.26-)13.32-16.33(-19.73) x (3.97-)4.24-4.67(-4.85)
8229	(13.91-)15.61-17.84(-19.06) x (4.10-)4.41-4.86(-5.11)

Table S4. Mean lesion length caused by *C. acutatum* isolates on cultivars Manzanilla and Mission after wound inoculation for the virulence trials.

STE-U number	Mean lesion size measured (mm) ^a			
	Manzanilla	Standard deviation	Mission	Standard deviation
8047	4.568 f,g,h,i ^b	2.76	9.763 b,c,d,e	0.53
8048	3.359 h,i	3.02	3.403 h,i	1.04
8049	12,831 a	1.53	12,883 a	1.79
8050	5.346 e,f,g,h	1.08	10.769 a,b,c,d,e	0.86
8061	5.807 e,f,g,h	1.89	9.799 b,c,d,e	2.21
8064	8.064 b,c,d,e,f	1.03	9.313 c,d,e	0.96
8065	6.182 d,e,f,g,h	2.57	11.117 b,c,d,e	1.87
8067	9.667 a,b,c,d	2.64	11.844 a,b	2.53
8068	11,173 a,b	3.99	9.205 c,d,e,f	1.52

STE-U number	Mean lesion size measured (mm) ^a			
	Manzanilla	Standard deviation	Mission	Standard deviation
8069	8.391 b,c,d,e	1.42	9.643 b,c,d,e	1.84
8070	8.3 b,c,d,e	2.95	8.383 e,f	2.33
8071	6.25 d,e,f,g,h	1.88	6.79 f,g	1.53
8072	7.092 c,d,e,f,g	1.80	9.038 c,d,e,f	1.89
8220	10.11 a,b,c	1.87	11.048 a,b,c,d	2.09
8221	6.198 d,e,f,g,h	3.45	9.89 b,c,d,e	1.97
8222	7.389 c,d,e,f,g	5.36	8.534 e,f	0.91
8223	4.14 g,h,i	2.06	3.451 h,i	2.37
8226	11,165 a,b	0.87	11.33 a,b,c	2.15
8227	6.565 d,e,f,g,h	2.79	8.848 d,e,f	2.09
8229	6.562 d,e,f,g,h	0.83	5.803 g,h	1.65
Control	1.419 i	0.20	1.518 i	0.44

^aSix fruit were inoculated with a treatment and the trial was repeated. The mean lesion per isolate and cultivar reported was from 12 measurements.

^b Values within each column do not differ significantly ($P < 0.05$).