

Supplemental material

Assessing the pathogenicity of *Berkeleyomyces rouxiae* and *Fusarium oxysporum* f. sp. *vasinfectum* on cotton (*Gossypium hirsutum*) using a rapid and robust seedling screening method

Andrew Chen ^{1,*}, Duy P. Le ², Linda J. Smith ³, Dinesh Kafle ³, Elizabeth A. B. Aitken ^{1,*} and Donald M. Gardiner ^{4,*}.

Table S1. Primers used for PCR in this study.

Primer name	5' to 3' sequence	Product (bp)	PCR ¹ (C)	Reference
Cer-MCM7F	ACICGIGTITCIGAYGTNAAGCC	628	55	de Beer et al., 2014
Cer-MCM7R	TTRGCAACACCAGGRTCACCCAT			
RPB2-5Fb	GAYGAYCGTGATCACTTYGG	1129	55	Fourie et al., 2015
RPB2-7Rb	CCCATRGCYTGYTTRCCCAT			
PHO 1	ATCTTCTGGCGTGTTATCATG	620	50	Skovgaard et al., 2001
PHO 4	GTGCTGGAAGAAGTCTCTCC			
MS 1	CAGCAGTCAAGAATATTAGTCAATG	400	52	White et al., 2000
MS 21	CTCTCCTCCTCAAGTACTGC			
EF-1	ATGGGTAAGGAAGACAAGAC	652		O'Donnell et al., 1998
EF-2	GGAAGTACCAGTGATCATGTT			Skovgaard et al., 2001
FovSIX6-F2	CTTCACGGCAGACCCG	~467	55	Chakrabarti et al., 2011
SIX6-R1	CAAGACCAGGTGTAGGCATT			
SIX1-F	TCTCCATTACTTTGTCTCACG	694-733	55	Czislowski et al., 2021
SIX1-R	CGATTTAGGCGATTCGGGG			
SIX2-F	GGTCCCATCGTTGAAGC	327-330	55	Czislowski et al., 2021
SIX2-R	TTGGTTTAAATCTGCGTGTC			
SIX3-F	TTACTACGAGCTTCAGCACC	223	55	Czislowski et al., 2021
SIX3-R	GCATTAGGTGTTGCAACAGG			
SIX4-F	CAGCTCAGACAGTCAGCC	~491	55	Czislowski et al., 2021
SIX4-R	GGCCTTGAGTCGAATGAGC			
SIX5-F	TCA TCA GTA CTG TGC TTG CC	347-354	55	Czislowski et al., 2021
SIX5-R	CAT GTT GAG TCT GCT CCT CC			
SIX6-F	CTCTCGAGACACSTTCC	396-399	52	Czislowski et al., 2021
SIX6-R	GATCCACCAATACCTTCAT			
SIX7-F	GAGGTGACATTTGACATCACC	113	55	Czislowski et al., 2021

SIX7-R	TAGTATGCGCGCCATTGG			
SIX8-F	CCCTAGCCGTCTCTGTGGC	163-165	60	Czislowski et al., 2021
SIX8-R	CGTTCGACAAGGGCTCTCTCG			
SIX9-G1-F	TTCAAGTCGGTTGCTACGC	118	55	Czislowski et al., 2021
SIX9-G1-R	GCATCCCCAAAATCCAAAGCG			
SIX10-F	TCACGTTTCGAGTTGGTCC	202	55	Czislowski et al., 2021
SIX10-R	ACACCAAATCGAGTCGATGC			
SIX11-F	GTTGCTCCTCCTTTGCTGG	163	56	Czislowski et al., 2021
SIX11-R	TACCACTCTGACCAGTCACC			
SIX12-F	CAGAATGCTTGTGTGTGTGG	171	56	Czislowski et al., 2021
SIX12-R	ATCACCAGAGCATGAACCCC			
SIX13-F	TCTGATCAGCCTCCTAGCG	840	58	Czislowski et al., 2021
SIX13-R	CCACTGTAACTCGGCATCGA			
SIX14-F	TGTCTCAGCGTATCCTCGGC	147-197	58	Czislowski et al., 2021
SIX14-R	ATTCAGTGACAACGGGACCG			

¹ The annealing temperatures used in PCR.

Table S2. MCM7 and RPB2 gene sequences used for phylogenetic analyses in this study. They include these retrieved from the previous studies (Nel et al., 2018; Duy et al., 2022) as well as the ones generated in this study.

Species Name	Isolate name	MCM7	RPB2
<i>Berkeleyomyces rouxiae</i>	StrB22	PQ346555	PQ346543
<i>Berkeleyomyces rouxiae</i>	RVB4.1	PQ346556	PQ346544
<i>Berkeleyomyces rouxiae</i>	BRR4	PQ346557	PQ346545
<i>Berkeleyomyces rouxiae</i>	22BRR77	PQ346558	PQ346546
<i>Berkeleyomyces rouxiae</i>	CBS150.67	MF967107	MF967160
<i>Berkeleyomyces rouxiae</i>	CMW7623	MF967110	MF967193
<i>Berkeleyomyces rouxiae</i>	CMW14219	MF967086	MF967165
<i>Berkeleyomyces rouxiae</i>	CMW7064	MF967081	MF967187
<i>Berkeleyomyces rouxiae</i>	CMW7625	MF967112	MF967194
<i>Berkeleyomyces rouxiae</i>	CMW14222	MF967087	MF967168
<i>Berkeleyomyces rouxiae</i>	CMW14223	MF967111	MF967169
<i>Berkeleyomyces rouxiae</i>	CMW7066	MF967083	MF967189
<i>Berkeleyomyces rouxiae</i>	CMW14220	MF967103	MF967166
<i>Berkeleyomyces rouxiae</i>	CMW14221	MF967113	MF967167
<i>Berkeleyomyces rouxiae</i>	CMW44562	MF967089	MF967175
<i>Berkeleyomyces rouxiae</i>	CMW44564	MF967091	MF967177
<i>Berkeleyomyces rouxiae</i>	CMW44565	MF967092	MF967178
<i>Berkeleyomyces rouxiae</i>	CMW44566	MF967093	MF967179
<i>Berkeleyomyces rouxiae</i>	CMW44567	MF967094	MF967180
<i>Berkeleyomyces rouxiae</i>	CMW44568	MF967095	MF967181
<i>Berkeleyomyces rouxiae</i>	CMW44563	MF967090	MF967176
<i>Berkeleyomyces basicola</i>	CBS414.52	MF967104	MF967163
<i>Berkeleyomyces basicola</i>	CBS430.74	MF967101	MF967164
<i>Berkeleyomyces basicola</i>	CMW7069	MF967085	MF967191
<i>Berkeleyomyces basicola</i>	CMW49352	MF967102	MF967183

<i>Berkeleyomyces basicola</i>	CMW7067	MF967084	MF967190
<i>Berkeleyomyces basicola</i>	CMW25440	MF967088	MF967172
<i>Berkeleyomyces basicola</i>	CMW25439	MF967099	MF967171
<i>Berkeleyomyces basicola</i>	CMW6714	MF967079	MF967186
<i>Berkeleyomyces basicola</i>	SA1	MF967108	MF967198
<i>Berkeleyomyces basicola</i>	CMW26479	MF967105	MF967173
<i>Berkeleyomyces basicola</i>	CMW4098	MF967078	MF967174
<i>Chalaropsis thielavioides</i>	cam7	ON055141	ON055135
<i>Ceratocystis pirilliformis</i>	CMW6579	KM495453	KJ601630
<i>Ceratocystis platani</i>	CMW14802	KM495454	KJ601628
<i>Ceratocystis eucalypticola</i>	CMW11536	KM495428	KJ601612
<i>Ceratocystis fimbriata</i>	wsjk-1	MN990348	1MN957791
<i>Ceratocystis diversiconidia</i>	CMW22448	KJ601536	KJ601608
<i>Ceratocystis harringtonii</i>	CMW14789	KM495435	MF967170
<i>Lignincola laevis</i>	NTOU3603	KC417327	DQ836886

Table S3. TEF-1 α , mtSSU rDNA, PHO, and NIR gene sequences used for phylogenetic analyses in this study. They include these retrieved from the previous studies (Skovgaard et al., 2001; Wang et al., 2010) as well as the ones generated in this study.

Species name	Isolate name	TEF-1 α	mtSSU rDNA	PHO	NIR
<i>Fusarium oxysporum</i> f. sp. <i>vasinfectum</i>	SG1	PQ346535	PQ321298	PQ346559	PQ346547
<i>Fusarium oxysporum</i> f. sp. <i>vasinfectum</i>	SG55	PQ346538	PQ321301	PQ346562	PQ346550
<i>Fusarium oxysporum</i> f. sp. <i>vasinfectum</i>	TH1	PQ346539	PQ321302	PQ346563	PQ346551
<i>Fusarium oxysporum</i> f. sp. <i>vasinfectum</i>	SG26	PQ346542	PQ321305	PQ346566	PQ346554
<i>Fusarium oxysporum</i>	WRF2	PQ346536	PQ321299	PQ346560	PQ346548
<i>Fusarium oxysporum</i>	SHF6	PQ346537	PQ321300	PQ346561	PQ346549
<i>Fusarium oxysporum</i>	BRF2	PQ346540	PQ321303	PQ346564	PQ346552
<i>Fusarium oxysporum</i>	BRF1	PQ346541	PQ321304	PQ346565	PQ346553
<i>Fusarium oxysporum</i>	2631	EU246562	EU246597	EU246668	EU246634
<i>Fusarium oxysporum</i>	3506	EU246563	EU246598	EU246669	EU246635
<i>Fusarium oxysporum</i>	3552	EU246566	EU246600	EU246671	EU246637
<i>Fusarium oxysporum</i>	6519	EU246569	EU246603	EU246674	EU246640
<i>Fusarium oxysporum</i> f. sp. <i>vasinfectum</i>	3522	EU246564	EU246599	EU246670	EU246636
<i>Fusarium oxysporum</i> f. sp. <i>vasinfectum</i>	IMI-325576	EU246572	EU246606	EU246677	EU246643
<i>Fusarium oxysporum</i> f. sp. <i>vasinfectum</i>	IMI-338122	EU246573	EU246607	EU246678	EU246644
<i>Fusarium oxysporum</i> f. sp. <i>vasinfectum</i>	BBA62374	AF362142	AF362175	AF362236	AF362208
<i>Fusarium oxysporum</i> f. sp. <i>vasinfectum</i>	BBA62375	AF362143	AF362176	AF362237	AF362209
<i>Fusarium oxysporum</i> f. sp. <i>vasinfectum</i>	BBA64496	AF362159	AF362192	AF362253	AF362225
<i>Fusarium oxysporum</i> f. sp. <i>vasinfectum</i>	BBA65650	AF362154	AF362187	AF362248	AF362220
<i>Fusarium oxysporum</i> f. sp. <i>vasinfectum</i>	BBA65654	AF362155	AF362188	AF362249	AF362221
<i>Fusarium oxysporum</i> f. sp. <i>vasinfectum</i>	BBA66845	AF362153	AF362186	AF362247	AF362219
<i>Fusarium oxysporum</i> f. sp. <i>vasinfectum</i>	BBA67521	AF362152	AF362185	AF362246	AF362218
<i>Fusarium oxysporum</i> f. sp. <i>vasinfectum</i>	BBA69712	AF362162	AF362195	AF362256	AF362228
<i>Fusarium oxysporum</i>	4511	EU246567	EU246601	EU246672	EU246638
<i>Fusarium oxysporum</i> f. sp. <i>vasinfectum</i>	AG6	EU246547	EU246594	EU246665	EU246631
<i>Fusarium oxysporum</i> f. sp. <i>vasinfectum</i>	BBA65934	AF362165	AF362198	AF362259	AF362231
<i>Fusarium oxysporum</i> f. sp. <i>vasinfectum</i>	BBA66846	AF362164	AF362197	AF362258	AF362230

<i>Fusarium oxysporum</i> f. sp. <i>vasinfectum</i>	BBA69050	AF362156	AF362189	AF362250	AF362222
<i>Fusarium oxysporum</i> f. sp. <i>vasinfectum</i>	BBA69518	AF362160	AF362193	AF362254	AF362226
<i>Fusarium oxysporum</i> f. sp. <i>vasinfectum</i>	BBA69519	AF362157	AF362190	AF362251	AF362223
<i>Fusarium oxysporum</i> f. sp. <i>vasinfectum</i>	BBA69520	AF362140	AF362173	AF362234	AF362206
<i>Fusarium oxysporum</i> f. sp. <i>vasinfectum</i>	BBA69521	AF362139	AF362172	AF362233	AF362205
<i>Fusarium oxysporum</i> f. sp. <i>vasinfectum</i>	BBA69716	AF362163	AF362196	AF362257	AF362229
<i>Fusarium oxysporum</i> f. sp. <i>vasinfectum</i>	IMI-141112	EU246570	EU246604	EU246675	EU246641
<i>Fusarium oxysporum</i> f. sp. <i>vasinfectum</i>	AG86	EU246548	EU246595	EU246666	EU246632
<i>Fusarium oxysporum</i> f. sp. <i>vasinfectum</i>	ATCC 16611	EU246549	EU246596	EU246667	EU246633
<i>Fusarium oxysporum</i> f. sp. <i>vasinfectum</i>	BBA65635	AF362147	AF362180	AF362241	AF362213
<i>Fusarium oxysporum</i> f. sp. <i>vasinfectum</i>	BBA65636	AF362148	AF362181	AF362242	AF362214
<i>Fusarium oxysporum</i> f. sp. <i>vasinfectum</i>	BBA65653	AF362141	AF362174	AF362235	AF362207
<i>Fusarium oxysporum</i> f. sp. <i>vasinfectum</i>	BBA65655	AF362149	AF362182	AF362243	AF362215
<i>Fusarium oxysporum</i> f. sp. <i>vasinfectum</i>	BBA66844	AF362150	AF362183	AF362244	AF362216
<i>Fusarium oxysporum</i> f. sp. <i>vasinfectum</i>	BBA69405	AF362151	AF362184	AF362245	AF362217
<i>Fusarium oxysporum</i> f. sp. <i>vasinfectum</i>	SC1	EU246574	EU246608	EU246679	EU246645
<i>Fusarium oxysporum</i> f. sp. <i>vasinfectum</i>	BBA64495	AF362144	AF362177	AF362238	AF362210
<i>Fusarium oxysporum</i> f. sp. <i>vasinfectum</i>	BBA65633	AF362146	AF362179	AF362240	AF362212
<i>Fusarium oxysporum</i> f. sp. <i>vasinfectum</i>	BBA65634	AF362145	AF362178	AF362239	AF362211
<i>Fusarium oxysporum</i> f. sp. <i>vasinfectum</i>	BBA66847	AF362158	AF362191	AF362252	AF362224
<i>Fusarium oxysporum</i> f. sp. <i>vasinfectum</i>	BBA69711	AF362161	AF362194	AF362255	AF362227
<i>Fusarium oxysporum</i> f. sp. <i>vasinfectum</i>	IMI-141148	EU246571	EU246605	EU246676	EU246642
<i>Fusarium oxysporum</i>	3545	EU246540	EU246587	EU246657	EU246623
<i>Fusarium oxysporum</i>	3546	EU246541	EU246588	EU246658	EU246624
<i>Fusarium oxysporum</i>	3547	EU246542	EU246589	EU246659	EU246625
<i>Fusarium oxysporum</i>	3556	EU246543	EU246590	EU246661	EU246627
<i>Fusarium oxysporum</i>	6510	EU246545	EU246592	EU246663	EU246629
<i>Fusarium oxysporum</i> f. sp. <i>vasinfectum</i>	24492	EU246584	EU246618	EU246689	EU246655
<i>Fusarium oxysporum</i> f. sp. <i>vasinfectum</i>	24597	EU246580	EU246614	EU246685	EU246651
<i>Fusarium oxysporum</i> f. sp. <i>vasinfectum</i>	24598	EU246581	EU246615	EU246686	EU246652
<i>Fusarium oxysporum</i>	24646	EU246582	EU246616	EU246687	EU246653
<i>Fusarium oxysporum</i> f. sp. <i>vasinfectum</i>	B/96/02	EU246583	EU246617	EU246688	EU246654
<i>Fusarium oxysporum</i>	3608	EU246544	EU246591	EU246662	EU246628
<i>Fusarium oxysporum</i> f. sp. <i>vasinfectum</i>	24500	EU246575	EU246609	EU246680	EU246646
<i>Fusarium oxysporum</i> f. sp. <i>vasinfectum</i>	24595	EU246576	EU246610	EU246681	EU246647
<i>Fusarium oxysporum</i> f. sp. <i>vasinfectum</i>	41101	EU246578	EU246611	EU246682	EU246648
<i>Fusarium oxysporum</i> f. sp. <i>vasinfectum</i>	51101	EU246579	EU246612	EU246683	EU246649
<i>Fusarium oxysporum</i>	BW-2613	DQ435351	DQ435369	EU246656	EU246622
<i>Fusarium oxysporum</i> f. sp. <i>vasinfectum</i>	X1	EU246577	EU246613	EU246684	EU246650
<i>Fusarium oxysporum</i>	6632	EU246546	EU246593	EU246664	EU246630
<i>Fusarium oxysporum</i>	BW-3549	DQ435352	DQ435370	EU246660	EU246626
<i>Fusarium oxysporum</i>	NRRL25052	AF362171	AF362204	AF362260	AF362232

Table S4. *SIX6* gene sequences used for phylogenetic analysis in this study. They include these retrieved from a previous study (Rocha et al., 2016) as well as the ones generated in this study.

Species name	Isolate name	<i>SIX6</i>
<i>Fusarium oxysporum</i> f. sp. <i>vasinfectum</i>	SG1	PQ346567
<i>Fusarium oxysporum</i> f. sp. <i>vasinfectum</i>	SG55	PQ346568

<i>Fusarium oxysporum</i> f. sp. <i>vasinfectum</i>	TH1	PQ346569
<i>Fusarium oxysporum</i> f. sp. <i>vasinfectum</i>	SG26	PQ346570
<i>Fusarium oxysporum</i> f. sp. <i>vasinfectum</i>	RBG6378	KR855791
<i>Fusarium oxysporum</i> f. sp. <i>vasinfectum</i>	RBG5188	KR855790
<i>Fusarium oxysporum</i> f. sp. <i>vasinfectum</i>	RBG5186	KR855789
<i>Fusarium oxysporum</i> f. sp. <i>vasinfectum</i>	RBG5184	KR855788
<i>Fusarium oxysporum</i> f. sp. <i>vasinfectum</i>	FRL11157	KR855787
<i>Fusarium oxysporum</i> f. sp. <i>sesami</i>	FS08027	MN417209
<i>Fusarium oxysporum</i> f. sp. <i>radicis-cucumerinum</i>	RBG4743	KR855755
<i>Fusarium oxysporum</i> f. sp. <i>radicis-cucumerinum</i>	RBG4755	KR855754
<i>Fusarium oxysporum</i> f. sp. <i>passiflorae</i>	RBG6380	KR855782
<i>Fusarium oxysporum</i> f. sp. <i>passiflorae</i>	RBG5775	KR855781
<i>Fusarium oxysporum</i> f. sp. <i>pisi</i>	RBG6438	KR855778
<i>Fusarium oxysporum</i> f. sp. <i>pisi</i>	RBG6498	KR855777
<i>Fusarium oxysporum</i> f. sp. <i>niveum</i>	FRL1583	KR855756
<i>Fusarium oxysporum</i> f. sp. <i>niveum</i>	RBG5771	KR855744
<i>Fusarium oxysporum</i> f. sp. <i>lycopersici</i>	RBG5768	KR855786
<i>Fusarium oxysporum</i> f. sp. <i>cucumerinum</i>	RBG5106	KR855770
<i>Fusarium oxysporum</i> f. sp. <i>cucumerinum</i>	RBG5104	KR855769
<i>Fusarium oxysporum</i>	F114	MF314835
<i>Fusarium oxysporum</i>	F04	MF314833

Table S5. Spore concentrations of the liquid cultures determined on the day of inoculation.

Isolate name	Spore conc. (conidia/mL) ¹	Volume (mL) ¹	Spore conc. (conidia/mL) ²	Volume (mL) ²	Root dipping (conidia/mL) ³	Volume (mL) ³
Fov SG1	2.075×10 ⁷	500	-	-	2.075×10 ⁷	500
Fov SG26	2.7×10 ⁵	500	-	-	2.7×10 ⁵	500
Fov SG55	3.775×10 ⁷	500	-	-	3.775×10 ⁷	500
Fov TH1	2.45×10 ⁷	500	-	-	2.45×10 ⁷	500
RVB4.1	1.245×10 ⁶	200	3.55×10 ⁶	45	8.175×10 ⁵	500
StrB22	1.25×10 ⁴	200	2.5×10 ³	45	5.225×10 ³	500
BRR4	4.25×10 ⁴	200	1.7825×10 ⁶	45	1.77425×10 ⁵	500
22BRR77	2.45×10 ⁶	200	4.15×10 ⁶	45	1.3535×10 ⁶	500
Fo BRF1 ⁴	2.35×10 ⁷	500	-	-	2.35×10 ⁷	500
Fo BRF2 ⁴	2.0×10 ⁷	500	-	-	2.0×10 ⁷	500
Fo SHF6 ⁴	2.675×10 ⁷	500	-	-	2.675×10 ⁷	500
Fo WRF2 ⁴	6.7×10 ⁶	500	-	-	6.7×10 ⁶	500
Fov SG1 ⁴	3.375×10 ⁷	500			3.375×10 ⁷	500

¹ Liquid culture established using half-strength PDB (Fov and Fo) and 10% carrot extract (v/v) in sterile water (*B. rouxiae*). ² Plate cultures using half-strength PDA (Fov and Fo) and 10% carrot extract (v/v) supplemented with 1.5% agar in sterile water (*B. rouxiae*). Five plates per *B. rouxiae* isolate were flooded with 10mL of sterile water. Spores and mycelia were collected and pooled totaling 45mL per isolate. ³ Spore concentrations of liquid and plate cultures combined in a total volume of 500mL. These cultures were used for root dipping. ⁴ This experiment was conducted at a later date

independently of the first experiment. Both experiments used the same growth chamber and the same set of growth parameters.

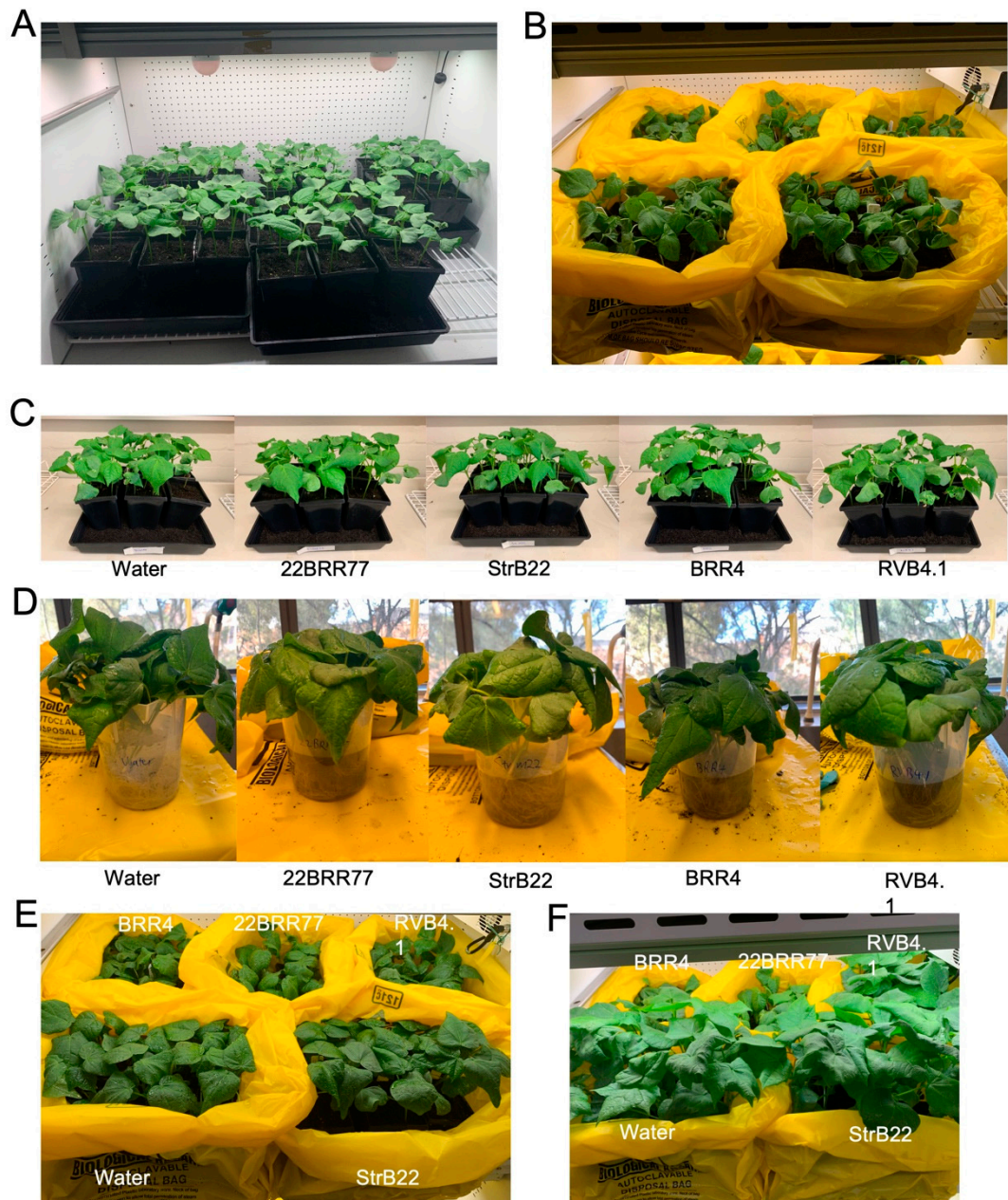


Figure S1. Plant growth before and after inoculation with *Berkeleyomyces rouxiae* isolates. **(A)** 12 days old Sicot746 B3F seedlings sitting in a double-tier growth chamber. **(B)** 14 days old Sicot746 B3F seedlings immediately after inoculation. **(C)** 14 days old Sicot746 B3F seedlings before inoculation. **(D)** Root dipping was performed using unfiltered cultures. **(E)** Sicot746 B3F seedlings were recovering in the growth chamber at 4 days post inoculation (dpi). **(F)** Sicot746 B3F seedlings were recovering in the growth chamber at 12 dpi.

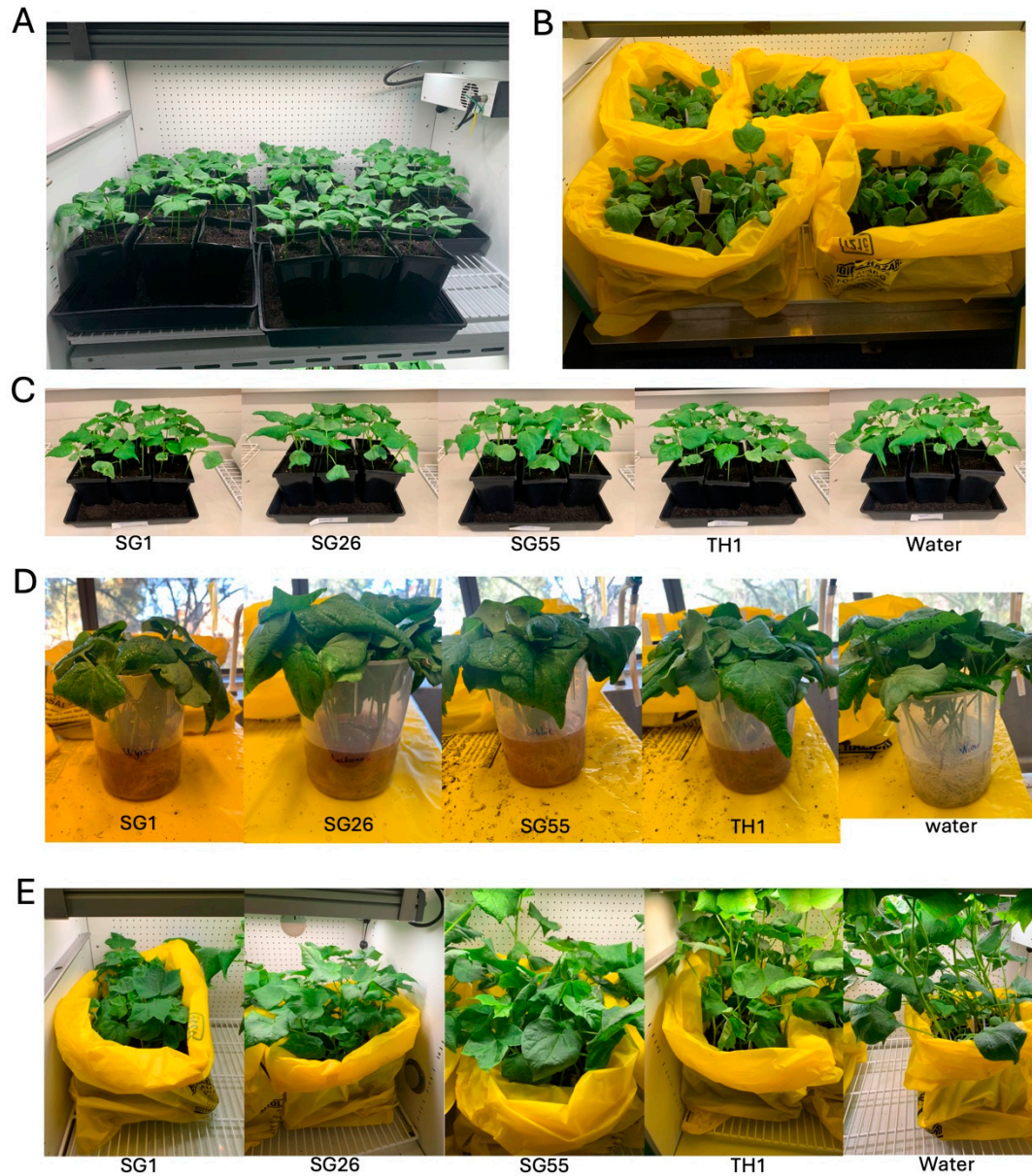


Figure S2. Plant growth before and after inoculation with *Fusarium oxysporum* f. sp. *vasinfectum* isolates. **(A)** 12 days old Sicot746 B3F seedlings sitting in a double-tier growth chamber. **(B)** 14 days old Sicot746 B3F seedlings immediately after inoculation. **(C)** 14 days old Sicot746 B3F seedlings before inoculation. **(D)** Root dipping was performed using unfiltered cultures. **(E)** Sicot746 B3F seedlings were recovering in the growth chamber at 19 days post inoculation.

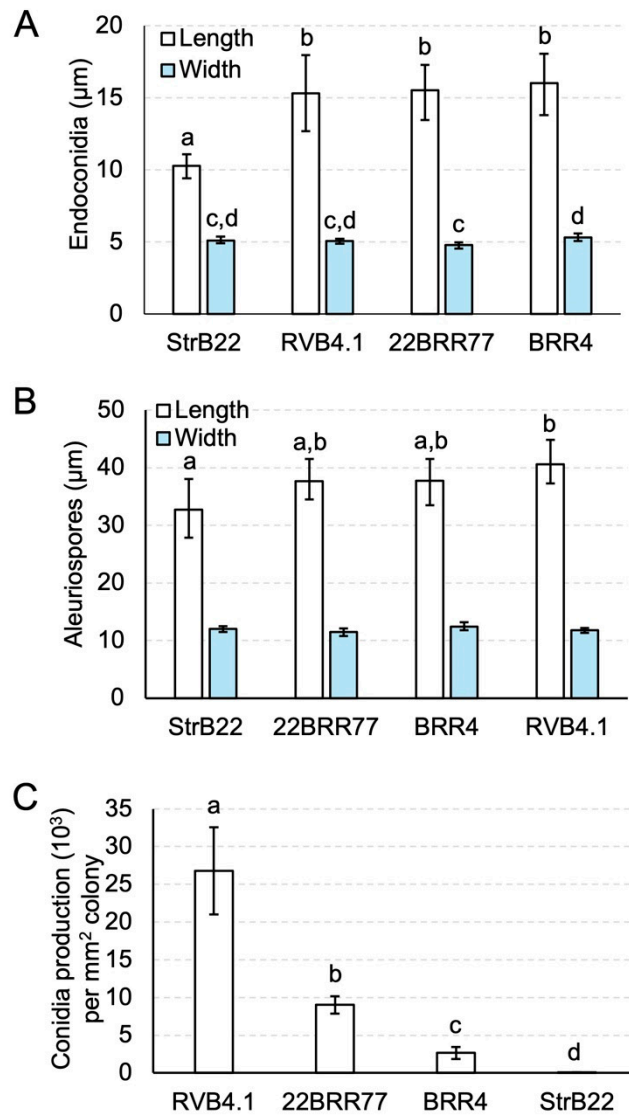


Figure S3. The spore size and growth rates of *Berkeleyomyces rouxiae* isolates after 3 weeks of growth on half-strength PDA plates. **(A)** Endoconidia size (n = 12). **(B)** Aleuriospore size (n = 12). **(C)** Growth rates in conidia production per mm² colony (n = 6). Letters indicate separation of means by Tukey's range test at p = 0.05. Error bars indicate a 95% confidence interval.

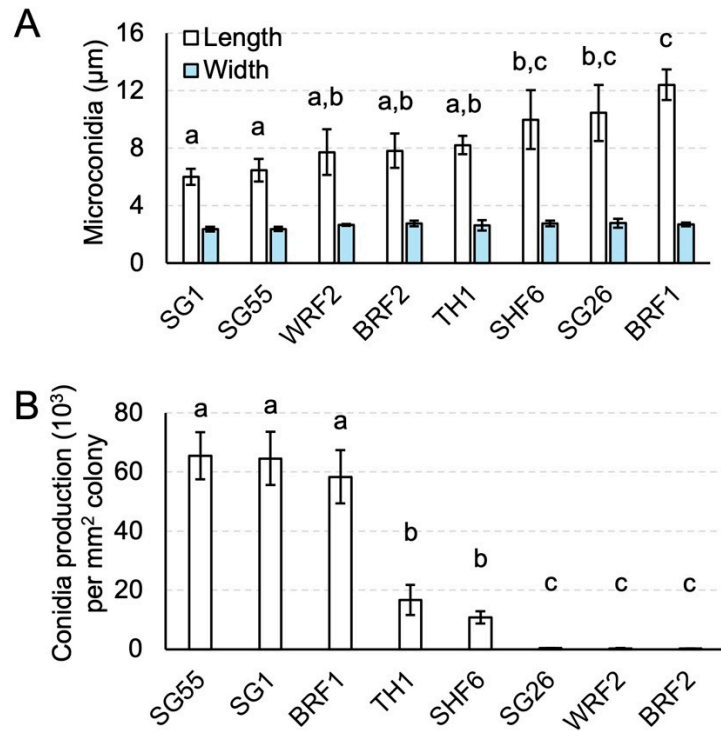


Figure S4. The spore size and growth rates of *Fusarium oxysporum* isolates after seven days of growth on half-strength PDA plates. **(A)** Microconidia size (n = 12). **(B)** Growth rates in conidia production per mm² colony (n = 5). Letters indicate significant separation of means by Tukey's range test at p = 0.05. Error bars indicate a 95% confidence interval.

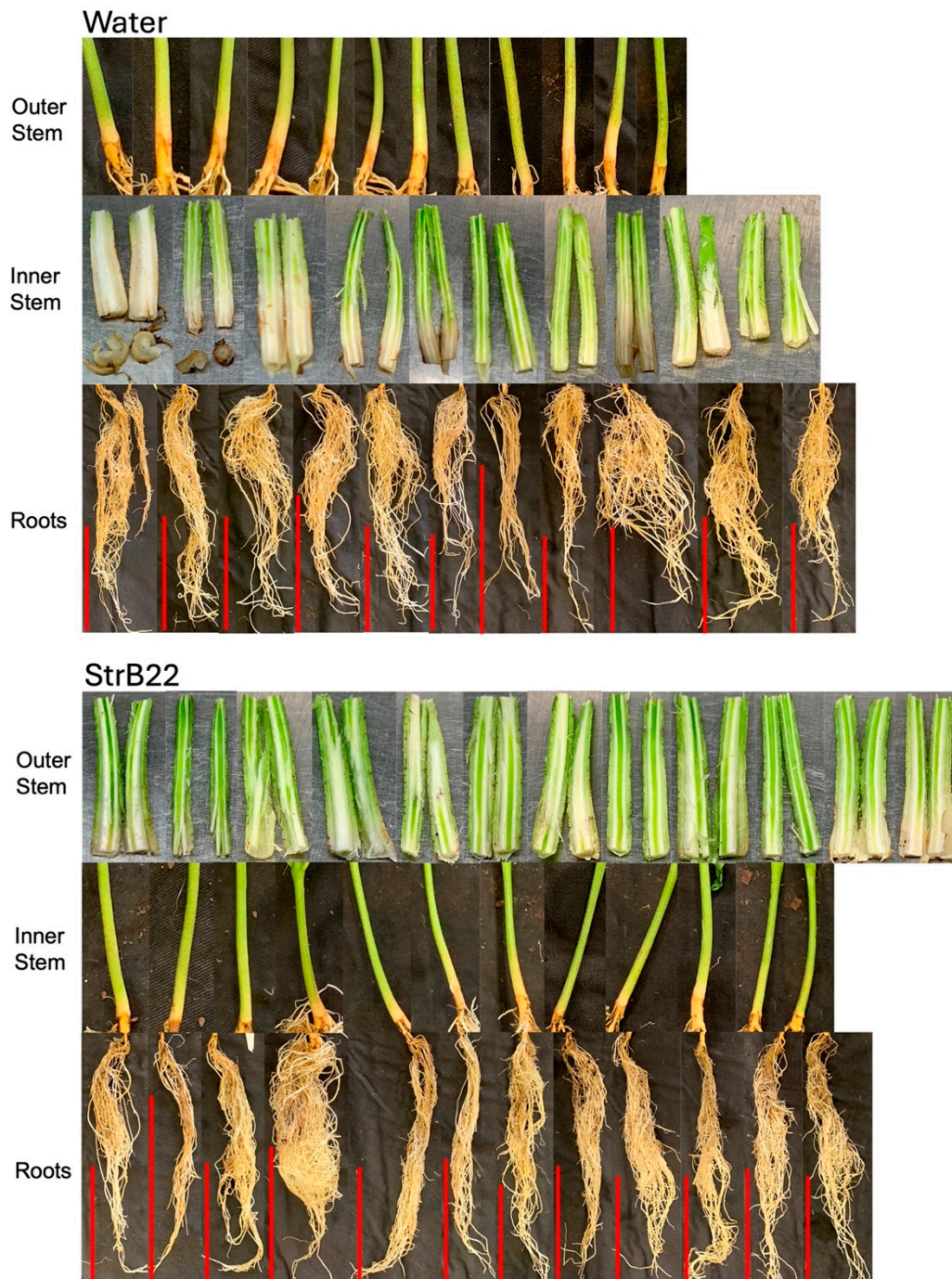


Figure S5. Symptomatology of Sicot746 B3F seedlings inoculated with *Berkeleyomyces rouxiae* at harvest (15 – 20 days post inoculation). Uninoculated controls and plants inoculated with StrB22 are shown. Red vertical bars indicate a scale of 10 cm.

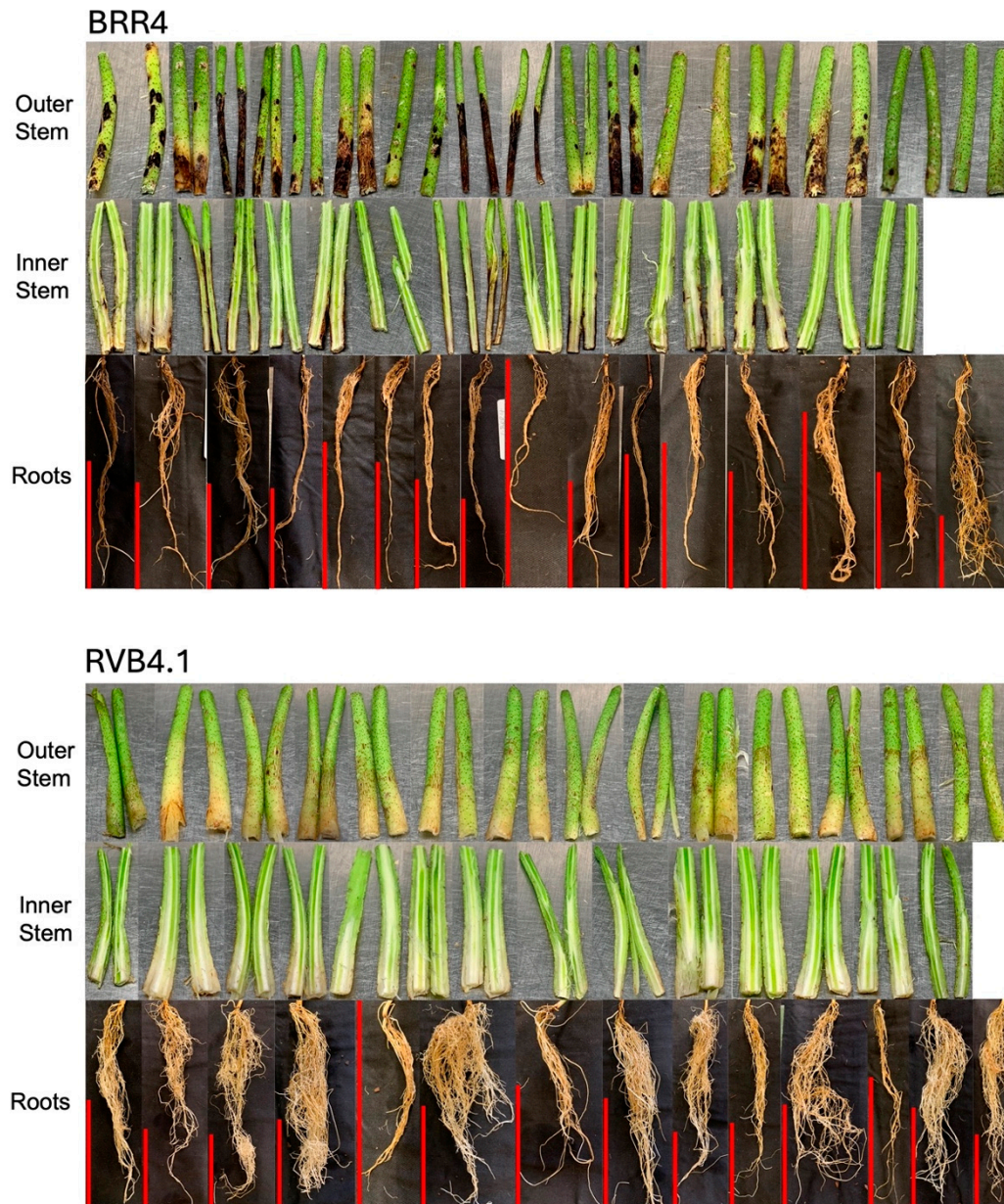


Figure S6. Symptomatology of Sicot746 B3F seedlings inoculated with *Berkeleyomyces rouxiae* at harvest (15 — 20 days post inoculation). Plants inoculated with BRR4 and RVB4.1 are shown. Red vertical bars indicate a scale of 10 cm.

22BRR77



Figure S7. Symptomatology of Sicot746 B3F seedlings inoculated with *Berkeleyomyces rouxiae* at harvest (15 — 20 days post inoculation). Plants inoculated with 22BRR77 are shown. Red vertical bars indicate a scale of 10 cm.

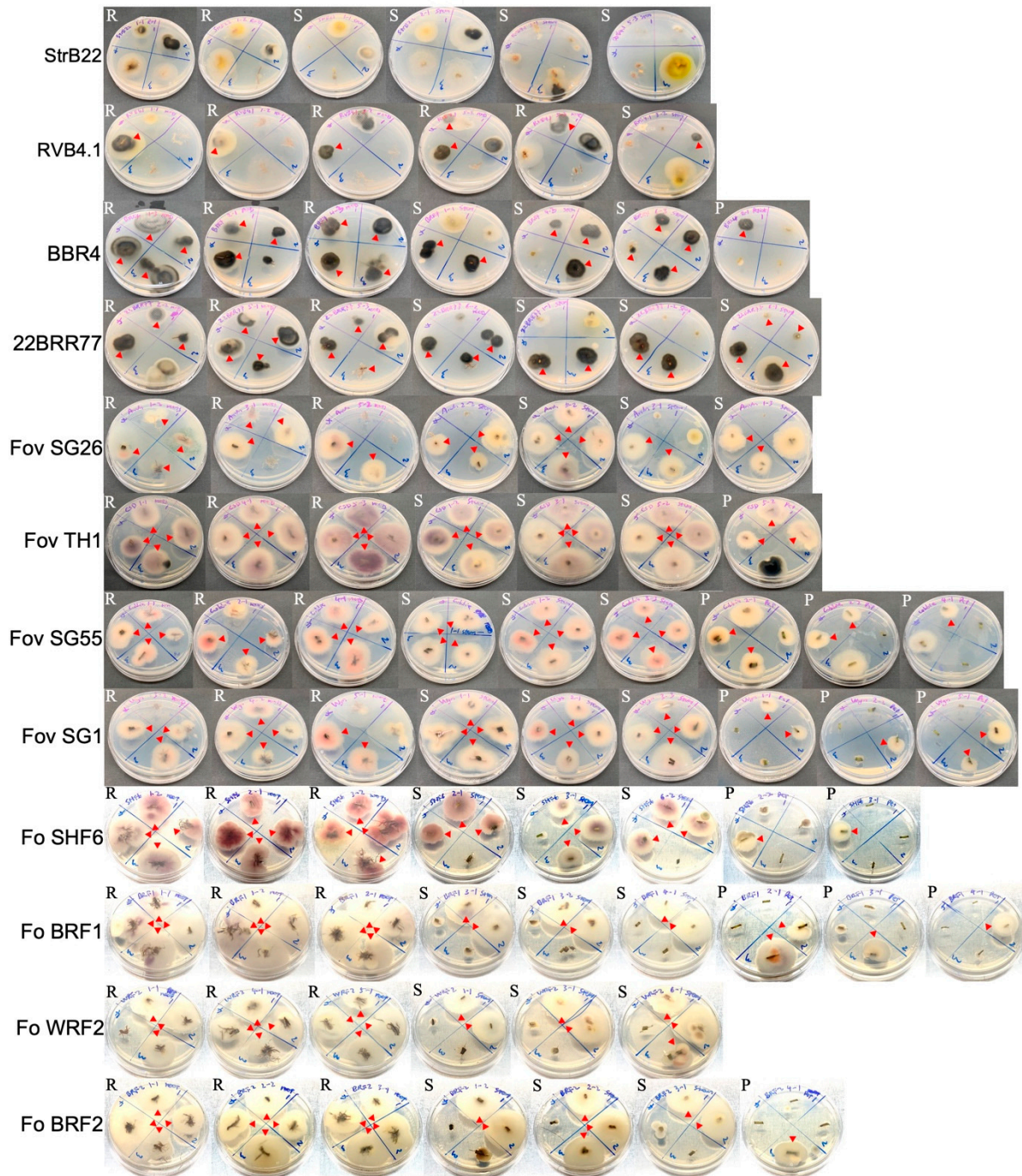


Figure S8. Reisolation of the *Berkeleyomyces rouxiae* and *Fusarium oxysporum* isolates from cotton plants on half-strength PDA plates (reverse view). Red arrows indicate *B. rouxiae* and *F. oxysporum* morphology positively identified under a compound microscope. R = roots; S = stem; P = petiole.

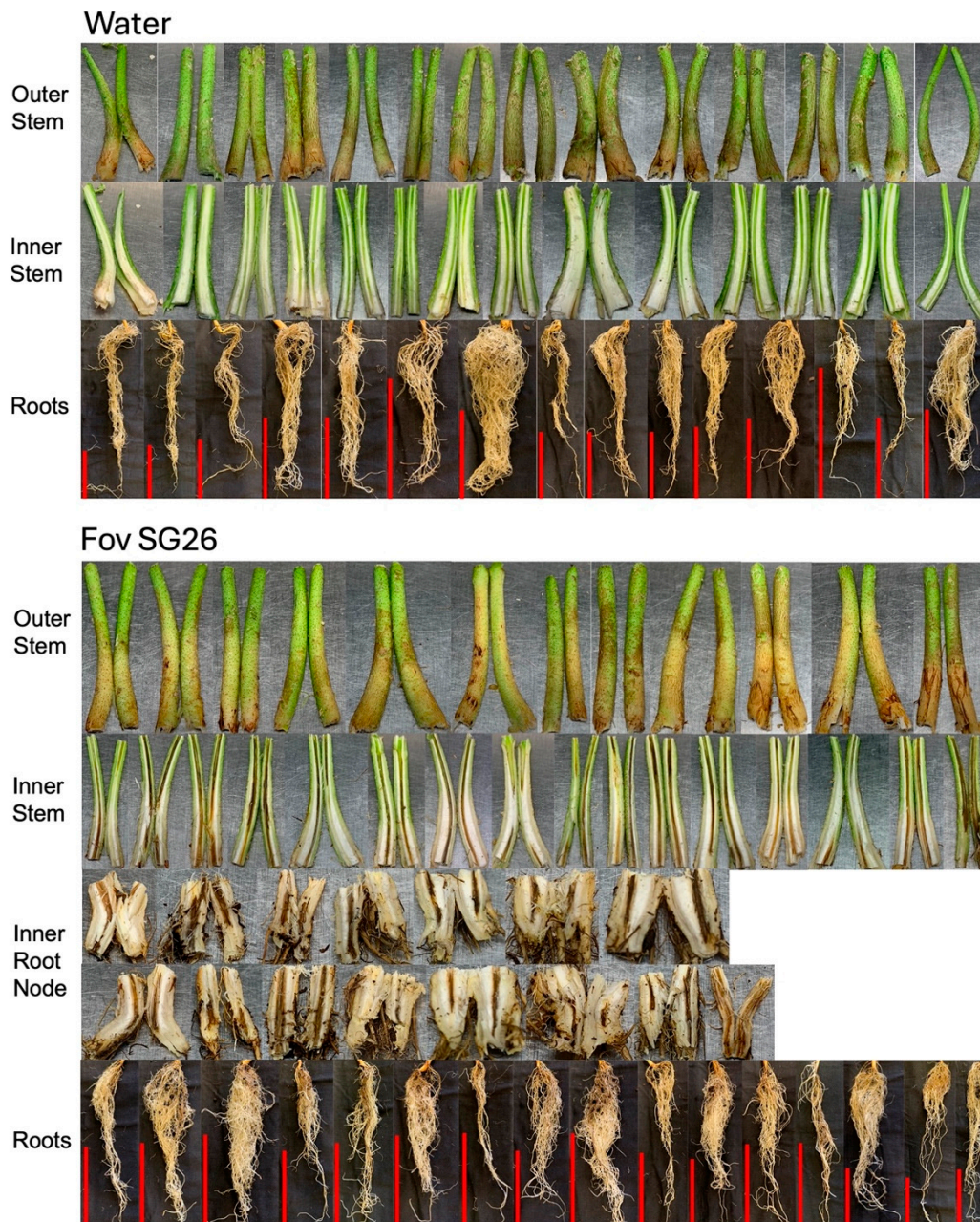


Figure S9. Symptomatology of Sicot746 B3F seedlings inoculated with *Fusarium oxysporum* f. sp. *vasinfectum* at harvest (27 – 34 days post inoculation). Uninoculated controls and Plants inoculated with Fov SG26 are shown. Red vertical bars indicate a scale of 10 cm.

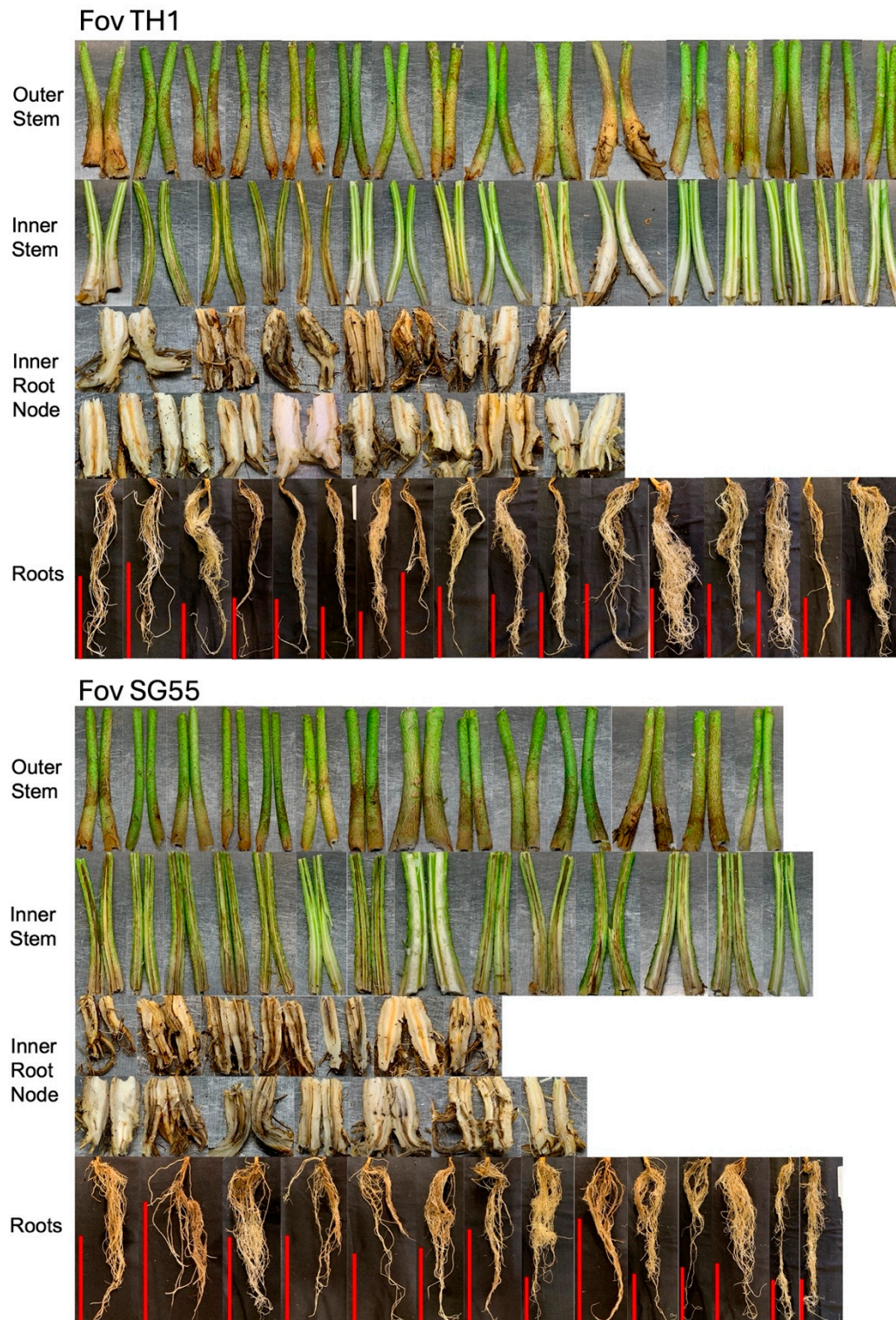


Figure S10. Symptomatology of Sicot746 B3F seedlings inoculated with *Fusarium oxysporum* f. sp. *vasinfectum* at harvest (27 — 34 days post inoculation). Plants inoculated with Fov TH1 and Fov SG55 are shown. Red vertical bars indicate a scale of 10 cm.



Figure S11. Symptomatology of Sicot746 B3F seedlings inoculated with *Fusarium oxysporum* f. sp. *vasinfectum* at harvest (27 — 34 days post inoculation). Plants inoculated with Fov SG1 are shown. Red vertical bars indicate a scale of 10 cm.

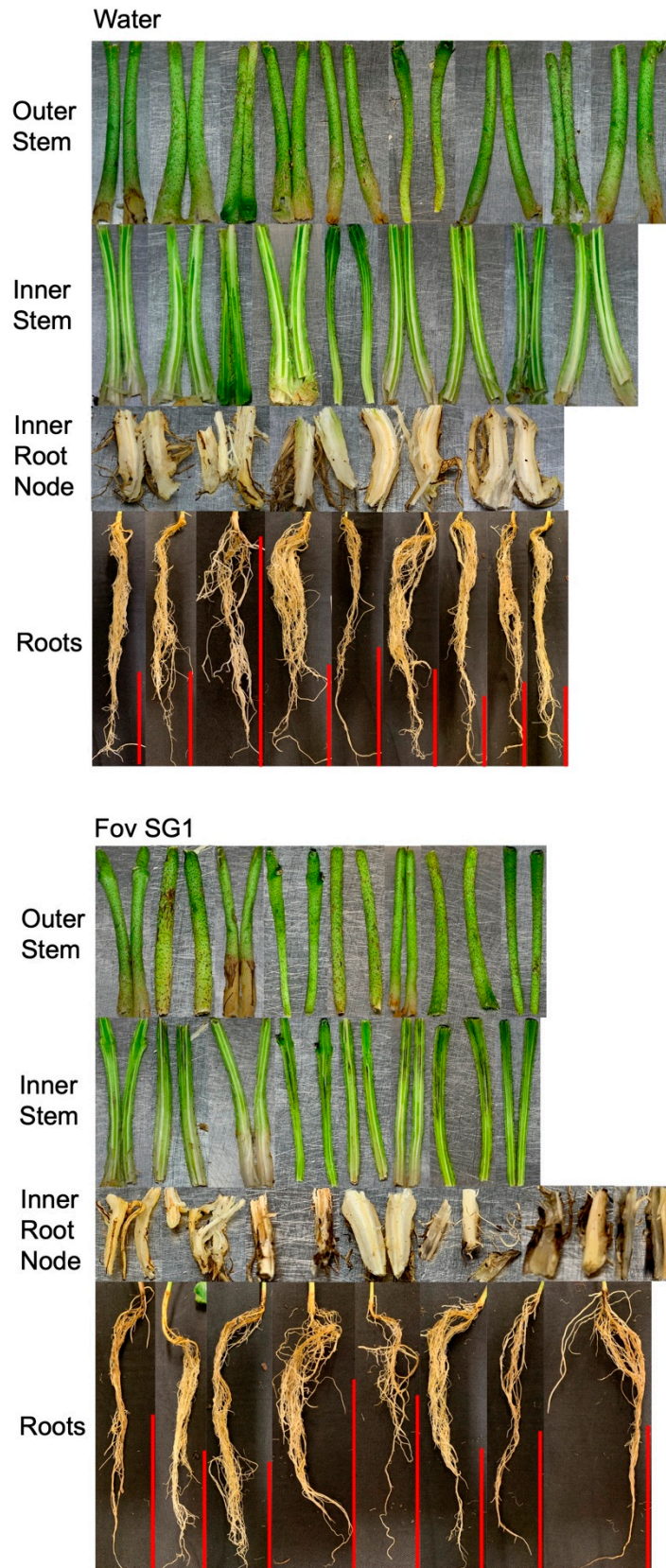


Figure S12. Symptomatology of Sicot746 B3F seedlings inoculated with *Fusarium oxysporum* spp. at harvest (17 – 22 days post inoculation). Uninoculated plants and plants inoculated with Fov SG1 (positive controls) are shown. Red vertical bars indicate a scale of 10 cm.

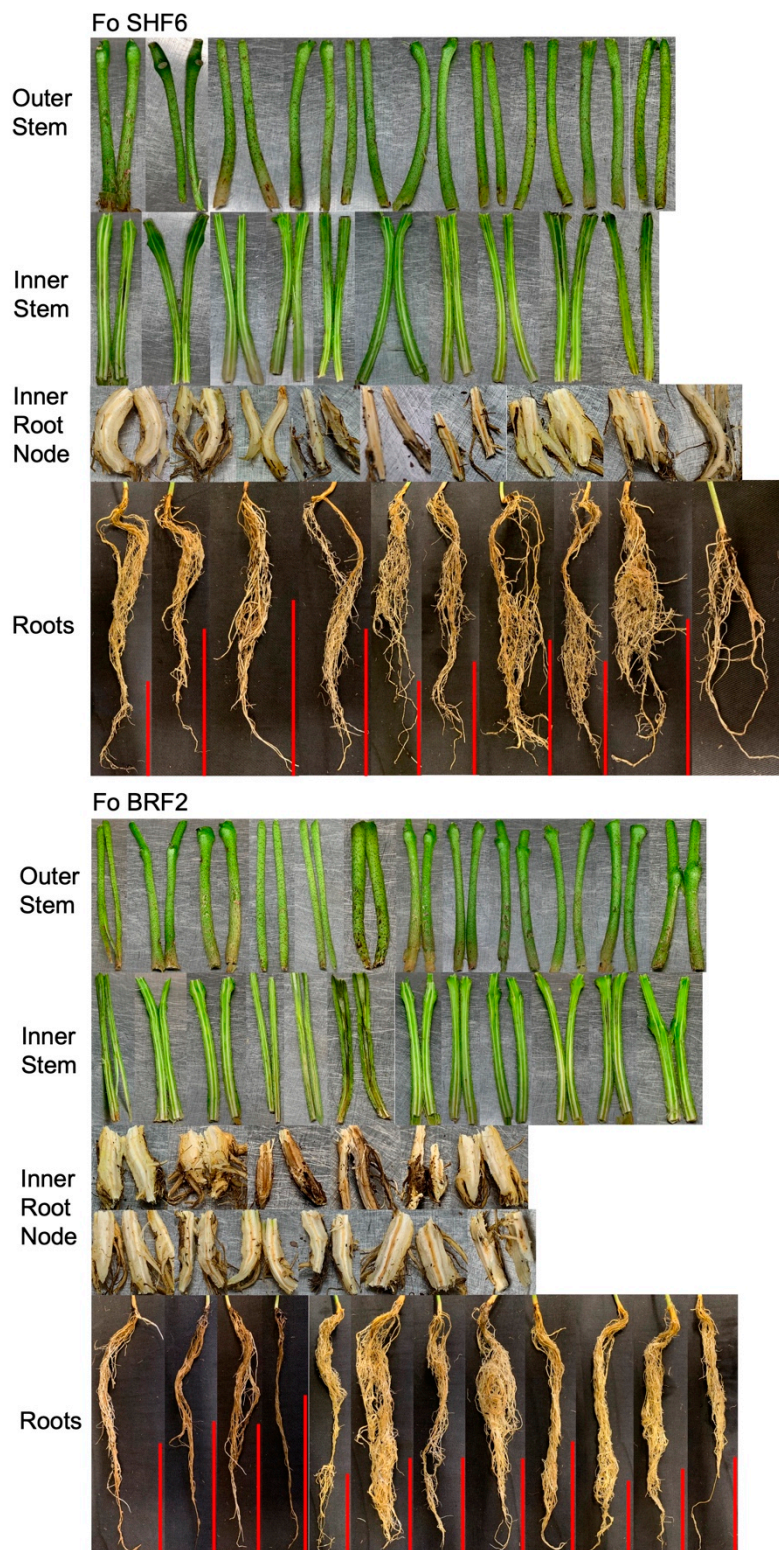


Figure S13. Symptomatology of Sicot746 B3F seedlings inoculated with *Fusarium oxysporum* spp. at harvest (17 – 22 days post inoculation). Plants inoculated with Fo SHF6 and Fo BRF2 are shown. Red vertical bars indicate a scale of 10 cm.

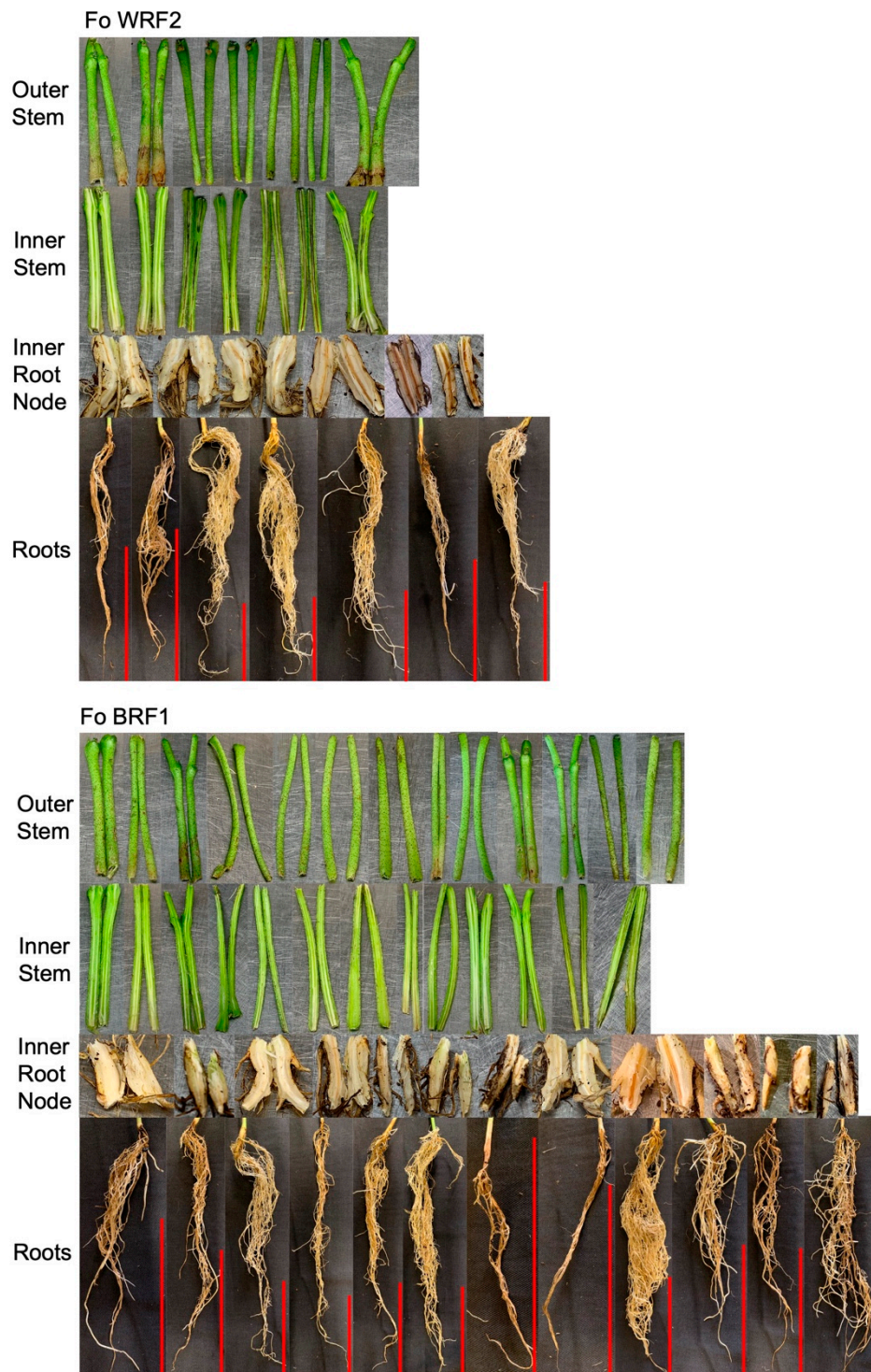


Figure S14. Symptomatology of Sicot746 B3F seedlings inoculated with *Fusarium oxysporum* spp. at harvest (17 – 22 days post inoculation). Plants inoculated with Fo WRF2 and Fo BRF1 are shown. Red vertical bars indicate a scale of 10 cm.