

**Table S1.** NCBI BLASTN identification of the *Fusarium* isolates from this study. <sup>a</sup>

Isolate	Primer	<i>Fusarium</i> spp.	Gene	Accession	Similarity	Overlap	Onion cv.	Collection site <sup>c</sup>
E1 <sup>b</sup>	E1/E2	<i>Fusarium oxysporum</i> f. sp. <i>cepae</i>	TEF1/2	<a href="#">MH161450.1</a>	99.85%	95%	Ha2	Givat Yoav, Golan Heights
	7cf/11ar	<i>Fusarium oxysporum</i> f. sp. <i>cumini</i>	RPB2	<a href="#">LT841210.1</a>	99.08%	98%		
E2 <sup>b</sup>	E1/E2	<i>Fusarium oxysporum</i> f. sp. <i>cepae</i>	TEF1/2	<a href="#">MH161450.1</a>	99.70%	95%	Ha2	Givat Yoav, Golan Heights
	7cf/11ar	<i>Fusarium oxysporum</i> f. sp. <i>cumini</i>	RPB2	<a href="#">LT841210.1</a>	99.37%	98%		
E3	E1/E2	<i>Fusarium falciforme</i> <i>Fusarium solani</i>	TEF1/2	<a href="#">OQ122079.1</a> <a href="#">HE647917.1</a>	99.86% 99.71%	94% 95%	Ha1	Givat Yoav, Golan Heights
	7cf/11ar	<i>Fusarium falciforme</i>	RPB2	<a href="#">OP913396.1</a>	97.86%	79%		
E5	E1/E2	<i>Fusarium acutatum</i>	TEF1/2	<a href="#">OL631172.1</a>	99.70%	98%	Ha1	Givat Yoav, Golan Heights
	7cf/11ar	<i>Fusarium acutatum</i>	RPB2	<a href="#">MN193883.1</a>	98.94%	98%		
E6	E1/E2	<i>Fusarium falciforme</i> <i>Fusarium solani</i>	TEF1/2	<a href="#">OL655000.1</a> <a href="#">HQ731052.1</a>	99.43% 99.57%	96%	Ha1	Givat Yoav, Golan Heights
	Fa/R8	<i>Fusarium solani</i>	RPB1	<a href="#">MW377534.1</a>	92.01%	50%		
E7	E1/E2	<i>Fusarium solani</i>	TEF1/2	<a href="#">MN329690.1</a>	99.29%	97%	Ha1	Givat Yoav, Golan Heights
	7cf/11ar	<i>Fusarium solani</i>	RPB2	<a href="#">XM_046273849.1</a>	98.11%	98%		
E8	E1/E2	<i>Fusarium solani</i>	TEF1/2	<a href="#">MN329690.1</a>	99.86%	97%	Ha2	Givat Yoav, Golan Heights
	Fa/R8	<i>Fusarium solani</i>	RPB1	<a href="#">XM_046270542.1</a>	97.80%	98%		
E9	E1/E2	<i>Fusarium solani</i>	TEF1/2	<a href="#">OP661104.1</a>	99.71%	96%	Ha2	Givat Yoav, Golan Heights
	7cf/11ar	<i>Fusarium solani</i>	RPB2	<a href="#">XM_046273849.1</a>	99.66%	91%		
E10	E1/E2	<i>Fusarium acutatum</i>	TEF1/2	<a href="#">OL631172.1</a>	99.55%	85%	Ha1	Givat Yoav, Golan Heights
	7cf/11ar	<i>Fusarium acutatum</i>	RPB2	<a href="#">MN193883.1</a>	98.31%	98%		
E11	E1/E2	<i>Fusarium acutatum</i>	TEF1/2	<a href="#">OL631172.1</a>	99.70%	97%	Ha1	Givat Yoav, Golan Heights
	7cf/11ar	<i>Fusarium acutatum</i>	RPB2	<a href="#">MN193883.1</a>	99.05%	97%		
E13	E1/E2	<i>Fusarium acutatum</i>	TEF1/2	<a href="#">MT010989.1</a>	99.70%	99%	Orlando	Yiron, Galilee
	7cf/11ar	<i>Fusarium acutatum</i>	RPB2	<a href="#">MN193883.1</a>	99.79%	98%		

E14	E1/E2	<i>Fusarium solani</i> <i>Fusarium falciforme</i>	TEF1/2	<a href="#">MW451301.1</a> <a href="#">KF020508.1</a>	99.71% 99.42%	96% 97%	Orland o	Yiron, Galilee
	7cf/11ar	<i>Fusarium falciforme</i> <i>Fusarium solani</i>	RPB2	<a href="#">OP913396.1</a> <a href="#">MF276968.1</a>	93.48% 96.39%	97% 86%		
E15	E1/E2	<i>Fusarium solani</i> <i>Fusarium falciforme</i>	TEF1/2	<a href="#">KY486693.1</a> <a href="#">ON375423.1</a>	99.13%	97%	Orland o	Yiron, Galilee
	7cf/11ar	<i>Fusarium falciforme</i>	RPB2	<a href="#">OP913396.1</a>	93.96%	98%		
E18	E1/E2	<i>Fusarium acutatum</i>	TEF1/2	<a href="#">MT010989.1</a>	99.64%	84%	Orland o	Yiron, Galilee
	Fa/R8	<i>Fusarium acutatum</i>	RPB1	<a href="#">MN193911.1</a>	99.16%	98%		
E19	E1/E2	<i>Fusarium acutatum</i>	TEF1/2	<a href="#">MT010989.1</a>	99.70%	97%	Orland o	Yiron, Galilee
	7cf/11ar	<i>Fusarium acutatum</i>	RPB2	<a href="#">MN193883.1</a>	99.79%	97%		
E20	E1/E2	<i>Fusarium solani</i> <i>Fusarium falciforme</i>	TEF1/2	<a href="#">KY486693.1</a> <a href="#">ON375423.1</a>	99.42%	97%	Orland o	Yiron, Galilee
	7cf/11ar	<i>Fusarium falciforme</i>	RPB2	<a href="#">OP913396.1</a>	98.72%	98%		
E21	E1/E2	<i>Fusarium solani</i> <i>Fusarium falciforme</i>	TEF1/2	<a href="#">MN386753.1</a> <a href="#">MG272423.1</a>	99.42%	98%	Orland o	Yiron, Galilee
	7cf/11ar	<i>Fusarium falciforme</i>	RPB2	<a href="#">OP913396.1</a>	97.03%	97%		
E22	E1/E2	<i>Fusarium acutatum</i>	TEF1/2	<a href="#">MT010989.1</a>	99.85%	97%	Orland o	Yiron, Galilee
	7cf/11ar	<i>Fusarium acutatum</i>	RPB2	<a href="#">MN193883.1</a>	99.58%	99%		
E23	E1/E2	<i>Fusarium solani</i> <i>Fusarium falciforme</i>	TEF1/2	<a href="#">MW451301.1</a> <a href="#">MG272423.1</a>	99.12% 98.69%	96% 97%	Orland o	Yiron, Galilee
	7cf/11ar	<i>Fusarium falciforme</i>	RPB2	<a href="#">OP913396.1</a>	96.76%	96%		
E24	E1/E2	<i>Fusarium solani</i> <i>Fusarium falciforme</i>	TEF1/2	<a href="#">MW451301.1</a> <a href="#">MH179128.1</a>	99.56% 99.27%	96% 97%	Orland o	Yiron, Galilee
	7cf/11ar	<i>Fusarium falciforme</i>	RPB2	<a href="#">OP913396.1</a>	98.52%	96%		
E26	E1/E2	<i>Fusarium solani</i> <i>Fusarium falciforme</i>	TEF1/2	<a href="#">MW451301.1</a> <a href="#">MH179128.1</a>	99.71% 99.27%	96% 97%	Orland o	Yiron, Galilee
	7cf/11ar	<i>Fusarium falciforme</i>	RPB2	<a href="#">OP913396.1</a>	99.25%	97%		
E27	E1/E2	<i>Fusarium solani</i> <i>Fusarium falciforme</i>	TEF1/2	<a href="#">MW451301.1</a> <a href="#">MG272423.1</a>	99.56% 98.98%	96% 97%	Orland o	Yiron, Galilee
	7cf/11ar	<i>Fusarium falciforme</i>	RPB2	<a href="#">OP913396.1</a>	89.51%	97%		
E28	E1/E2	<i>Fusarium solani</i> <i>Fusarium falciforme</i>	TEF1/2	<a href="#">MW451301.1</a> <a href="#">MG272423.1</a>	99.41% 99.12%	94%	Orland o	Yiron, Galilee
	7cf/11ar	<i>Fusarium falciforme</i>	RPB2	<a href="#">OP913396.1</a>	90.68%	96%		

E29	E1/E2	<i>Fusarium solani</i> <i>Fusarium falciforme</i>	TEF1/2	<a href="#">KY486693.1</a> <a href="#">ON375423.1</a>	99.71%	97%	Orlando	Yiron, Galilee
	7cf/11ar	<i>Fusarium falciforme</i>	RPB2	<a href="#">OP913396.1</a>	98.83%	96%		
E30	E1/E2	<i>Fusarium oxysporum</i> <i>f. sp. asparagi</i>	TEF1/2	<a href="#">MT305183.1</a>	99.41%	82%	Orlando	Yiron, Galilee
	7cf/11ar	<i>Fusarium oxysporum</i> <i>f. sp. dianthi</i>	RPB2	<a href="#">LT841238.1</a>	99.58%	98%		
E31	E1/E2	<i>Fusarium solani</i> <i>Fusarium falciforme</i>	TEF1/2	<a href="#">KY486693.1</a> <a href="#">ON375423.1</a>	98.98%	83%	Orlando	Yiron, Galilee
	7cf/11ar	<i>Fusarium falciforme</i>	RPB2	<a href="#">OP913396.1</a>	88.59%	97%		
E32	E1/E2	<i>Fusarium falciforme</i>	TEF1/2	<a href="#">OR167582.1</a>	99.56%	97%	Orlando	Yiron, Galilee
	7cf/11ar	<i>Fusarium falciforme</i>	RPB2	<a href="#">OP913396.1</a>	92.37%	97%		
E33	E1/E2	<i>Fusarium solani</i>	TEF1/2	<a href="#">KY486693.1</a>	99.56%	97%	Orlando	Yiron, Galilee
	7cf/11ar	<i>Fusarium falciforme</i>	RPB2	<a href="#">OP913396.1</a>	94.82%	97%		
E34	E1/E2	<i>Fusarium oxysporum</i>	TEF1/2	<a href="#">MN223435.1</a>	99.10%	97%	Orlando	Yiron, Galilee
	7cf/11ar	<i>Fusarium oxysporum</i>	RPB2	<a href="#">LT841238.1</a>	99.68%	97%		
E35	E1/E2	<i>Fusarium solani</i> <i>Fusarium falciforme</i>	TEF1/2	<a href="#">KY486693.1</a> <a href="#">ON375423.1</a>	99.13%	97%	Orlando	Yiron, Galilee
	7cf/11ar	<i>Fusarium falciforme</i>	RPB2	<a href="#">OP913396.1</a>	95.47%	97%		
E36	E1/E2	<i>Fusarium oxysporum</i>	TEF1/2	<a href="#">MN223435.1</a>	99.25%	97%	Orlando	Yiron, Galilee
	7cf/11ar	<i>Fusarium oxysporum</i> <i>f. sp. dianthi</i>	RPB2	<a href="#">LT841238.1</a>	99.68%	99%		

<sup>a</sup> Identifying the isolates relies on the highest sequence similarity scores of the studied genomic regions. PCR confirmed all isolates' identities with E1/E2 primers (targeting the *Fusarium* translation elongation factor-1 alpha gene) or the Fa/R8 or 7cF/11aR primers (targeting the RPB1 or RPB2 – the RNA polymerase largest or 2<sup>nd</sup> largest subunit, Table 1). Data generated by DNA sequencing were deposited in the NCBI repository. GenBank accession numbers for the nucleotide TEF1/2 sequences are presented in the declarations section, "Data Availability Statement."

<sup>b</sup> Isolates E1 and E2 were also identified using the FOC-six3 primers (targeting the *F. oxysporum* f. sp. *cepae* secreted in xylem genes 3, Figure 4).

<sup>c</sup> Isolates' colonies were collected from onions originating from Givat Yoav (Golan Heights) and Kibbutz Yiron (Galilee, Hula Valley) fields (see Figure 1).