

Table S1. List of viruses identified in grapevine (updated from Fuchs 2020).

Genome	Family	Genus	Species	Virion shape	Disease
(+)ssRNA	<i>Alphaflexiviridae</i>	<i>Potexvirus</i>	<i>Potato virus X</i> (PVX)	Filamentous	None
	<i>Betaflexiviridae</i>	<i>Fivirus</i>	<i>Grapevine Kizil Sapak virus</i> (GKS)	Filamentous	Unknown
		<i>Foveavirus</i>	<i>Grapevine rupestris stem pitting-associated virus</i> (GRSPaV)	Filamentous	Rugose wood
			<i>Grapevine virus T</i> (GVT)		Unknown
		<i>Trichovirus</i>	<i>Grapevine berry inner necrosis virus</i> (GINV)	Filamentous	Berry inner necrosis leaf deformation and mottling
			<i>Grapevine Pinot gris virus</i> (GPGV)		
		<i>Vitivirus</i>	<i>Grapevine virus A</i> (GVA)	Flexuous filamentous	Rugose wood
			<i>Grapevine virus B</i> (GVB)		
			<i>Grapevine virus D</i> (GVD)		
			<i>Grapevine virus E</i> (GVE)		
			<i>Grapevine virus F</i> (GVF)		
			<i>Grapevine virus G</i> (GVG)		
			<i>Grapevine virus H</i> (GVH)		
			<i>Grapevine virus I</i> (GVI)		
			<i>Grapevine virus J</i> (GVJ)		
			<i>Grapevine virus K</i> (GVK)		Unknown
			<i>Grapevine virus L</i> (GVL)		Unknown
			<i>Grapevine virus M</i> (GVM)		Rugose wood
	<i>Bromoviridae</i>	<i>Alfavirus</i>	<i>Alfalfa mosaic virus</i> (AMV)	Bacilliform	Yellow mosaic
		<i>Anulavirus</i>	<i>Amazon lily mild mottle virus</i> (ALiMMV)	Isometric	None
			<i>Grapevine line pattern virus</i> (GLPV)		Line pattern
		<i>Cucumovirus</i>	<i>Cucumber mosaic virus</i> (CMV)	Isometric	Unknown
		<i>Ilarvirus</i>	<i>Grapevine angular mosaic virus</i> (GaMoV)	Isometric	Angular mosaic
			<i>Grapevine virus S</i> (GVS)	Unknown	Unknown
	<i>Closteroviridae</i>	<i>Closterovirus</i>	<i>Grapevine leafroll-associated virus 2</i> (GLRaV2)	Filamentous	Leafroll/ Incompatibility

Genome	Family	Genus	Species	Virion shape	Disease
		<i>Ampelovirus</i>	<i>Grapevine leafroll-associated virus 1</i> (GLRaV1) <i>Grapevine leafroll-associated virus 3</i> (GLRaV3) <i>Grapevine leafroll-associated virus 4</i> (GLRaV4) <i>Grapevine leafroll-associated virus 13</i> (GLRaV13)	Filamentous	Leafroll
		<i>Velarivirus</i>	<i>Grapevine leafroll-associated virus 7</i> (GLRaV7)	Filamentous	Leafroll
	<i>Luteoviridae</i>	<i>Enamovirus</i>	<i>Grapevine enamovirus 1</i> (GEV1)	Isometric	None
		Unassigned	<i>Grapevine Ajinashika virus</i> (GAgV)	Isometric	Unknown
	<i>Partitiviridae</i>	<i>Deltapartitivirus</i>	<i>Grapevine cryptic virus</i> (GCV)	Unknown	Unknown
	<i>Potyviridae</i>	<i>Potyvirus</i>	<i>Bean common mosaic virus</i> (BCMV)	Filamentous	Unknown
	<i>Secoviridae</i>	<i>Cheravirus</i>	<i>Apple latent spherical virus</i> (ALSV)	Isometric	Unknown
		<i>Fabavirus</i>	<i>Broad bean wilt virus</i> (BBMV) <i>Grapevine fabavirus</i> (GFabV)	Isometric	Unknown Shine Muscat showing disease
		<i>Nepovirus</i>	<i>Artichoke Italian latent virus</i> (AILV) <i>Arabid mosaic virus</i> (ArMV) <i>Blueberry leaf mottle virus</i> (BBLMV) <i>Cherry leafroll virus</i> (CLRV) <i>Grapevine Anatolian ringspot virus</i> (GARSV) <i>Grapevine Bulgarian latent virus</i> (GBLV) <i>Grapevine deformation virus</i> (GDeV) <i>Grapevine chrome mosaic virus</i> (GCMV) <i>Grapevine fanleaf virus</i> (GFLV) <i>Grapevine Tunisian ringspot virus</i> (GTRV) <i>Peach rosette mosaic virus</i> (PRSM) <i>Raspberry ringspot virus</i> (RpRSV) <i>Tobacco ringspot virus</i> (TRSV) <i>Tomato ringspot virus</i> (ToRSV) <i>Tomato black ring virus</i> (TBRV)	Isometric	Leaf degeneration
		Unassigned	<i>Strawberry latent ringspot virus</i> (SLRSV)	Isometric	Leaf degeneration
	<i>Tombusviridae</i>	<i>Carmovirus</i>	<i>Carnation mottle virus</i> (CarMV)	Isometric	Roditis leaf discoloration
		<i>Necrovirus</i>	<i>Tobacco necrosis virus D</i> (TNV-D)	Isometric	Unknown

Genome	Family	Genus	Species	Virion shape	Disease
		<i>Tombusvirus</i>	<i>Grapevine Algerian latent virus</i> (GALV) <i>Petunia asteroid mosaic virus</i> (PAMV)	Isometric	Unknown
		<i>Tymoviridae</i>	<i>Marafivirus</i>	Isometric	Unknown
			<i>Blackberry virus S</i> (BIVS) <i>Grapevine asteroid mosaic-associated virus</i> (GAMaV) <i>Grapevine Syrah virus 1</i> (GSyV1)		Asteroid mosaic Unknown
		<i>Maculavirus</i>	<i>Grapevine fleck virus</i> (GFkV) <i>Grapevine red globe virus</i> (GRGV)	Isometric	Fleck Unknown
		<i>Gratylivirus</i>	<i>Grapevine-associated tymo-like virus</i> (GaTLV)	Isometric	Unknown
	<i>Virgaviridae</i>	<i>Tobamovirus</i>	<i>Grapevine virga-like virus</i> (GVLV) <i>Tobacco mosaic virus</i> (TMV) <i>Tomato mosaic virus</i> (ToMV)	Rod	Unknown
	Unassigned	<i>Idaeovirus</i>	<i>Raspberry bushy dwarf virus</i> (RBDV)	Isometric	Unknown
		<i>Sobemovirus</i>	<i>Sowbane mosaic virus</i> (SoMV)	Isometric	Unknown
		<i>Virtovirus</i>	<i>Grapevine virus satellite</i> (GV-Sat)	Isometric	Unknown
		<i>Unassigned</i>	<i>Grapevine labile rod-shaped virus</i> (GLRSV) <i>Grapevine stunt virus</i> (GSV)	Rod Isometric	Unknown
(–)ssRNA	<i>Bunyaviridae</i>	<i>Tospovirus</i>	<i>Tomato spotted wilt virus</i> (TSWV)	Isometric	Unknown
	<i>Phenuiviridae</i>	<i>Rubodvirus</i>	<i>Grapevine Garan dmak virus</i> (GGDV) <i>Grapevine Muscat rose virus</i> (GMRV)	Isometric	Unknown
dsRNA	<i>Endornaviridae</i>	<i>Endornavirus</i>	<i>Grapevine endophyte endornavirus</i> (GEEV)	Does not have any gene for capsid protein, no virion	None
	<i>Reoviridae</i>	<i>Oryzavirus</i> (?)	<i>Grapevine Cabernet Sauvignon reovirus</i> (GCSV)	Isometric	Unknown
ssDNA	<i>Geminiviridae</i>	<i>Begomovirus</i>	<i>Grapevine begomovirus A</i> (GBVA)	Twinned	Unknown
		<i>Grablovirus</i>	<i>Grapevine red blotch virus</i> (GRBV) <i>Wild Vitis latent virus 1</i> (WVV1)	Twinned	Red blotch
		Unassigned	<i>Grapevine geminivirus A</i> (GGVA) <i>Temperate fruit-decay-associated virus</i> (TFDaV)	Twinned	Unknown
dsDNA	<i>Caulimoviridae</i>	<i>Badnavirus</i>	<i>Grapevine vein clearing virus</i> (GVCV) <i>Grapevine badnavirus 1</i> (GBV1) <i>Grapevine Roditis leaf discoloration-associated virus</i> (GRLDaV)	Bacilliform	Vein clearing Unknown Roditis discoloration

1. Fuchs, M. Grapevine viruses: A multitude of diverse species with simple but overall poorly adopted management solutions in the vineyard. *Journal of Plant Pathology* **2020**, *102*, 643-653.