



DISEASE TERMINOLOGY			
Crop	Agent	Disease/Disorder	New Abbreviation
Tomato	B	Bacterial speck	Pst
Tomato	B	Bacterial spot	Xcv
Tomato	B	Bacterial wilt	Rs
Tomato	V	Beet curly top virus	BCTV
Tomato	V	Beet mild curly top virus	BMCTV
Tomato	V	Beet severe curly top virus	BSCTV
Tomato	F	Buckeye fruit and root rot	Pn
Tomato	F	Corky root	PI
Tomato	V	Cucumber mosaic virus	CMV
Tomato	F	Early blight	As
Tomato	F	Fusarium crown and root rot	For
Tomato	F	Fusarium wilt	Fol
Tomato	F	Gray leaf spot	Ss
Tomato	F	Gray mold	Bc
Tomato	V	Groundnut bud necrosis virus (Peanut bud necrosis)	GBNV
Tomato	V	Groundnut ringspot virus	GRSV
Tomato	F	Late blight	Pi
Tomato	F	Leaf mold	Ff
Tomato	N	Northern root-knot nematode	Mh
Tomato	V	Pepino mosaic virus	PepMV
Tomato	V	Potato virus Y	PVY
Tomato	F	Powdery mildew	Lt
Tomato	F	Powdery mildew	On
Tomato	N	Southern root-knot nematode	Mi/Ma/Mj
Tomato	F	Target spot	Cc
Tomato	V	Tobacco etch virus	TEV
Tomato	V	Tomato chlorosis virus	ToCV
Tomato	V	Tomato chocolate virus	ToChV
Tomato	V	Tomato infectious chlorosis virus	TICV
Tomato	V	Tomato marchitez virus	ToMarV
Tomato	V	Tomato mosaic virus	ToMV
Tomato	V	Tomato mottle virus	ToMoV
Tomato	V	Tomato spotted wilt virus	TSWV
Tomato	V	Tomato torrado virus	ToTV
Tomato	V	Tomato yellow leaf curl virus	TYLCV
Tomato	V	Tomato yellow leaf curl sardinia virus	TYLCSV
Tomato	V	Tomato yellow vein streak virus	TYYSV
Tomato	F	Verticillium wilt	Va/Vd
Watermelon	F	Anthracoese	Co
Watermelon	B	Bacterial fruit blotch	Aac
Watermelon	V	Cucumber green mottle mosaic virus	CGRMV
Watermelon	V	Cucumber mosaic virus	CMV
Watermelon	F	Fusarium wilt	Fon
Watermelon	V	Groundnut bud necrosis virus (Peanut bud necrosis)	GBNV
Watermelon	F	Gummy stem blight	Db
Watermelon	V	Papaya ringspot virus	PRSV
Watermelon	V	Watermelon mosaic virus	WMV
Watermelon	V	Zucchini yellow mosaic virus	ZYMV
Watermelon	F	Powdery mildew	Px

Agent: B = bacterium I = insect P = physiological  
 F = fungus N = nematode V = virus

# Disease Terminology

## for Monsanto's Vegetable Seeds Division

As we strive for consistency among all brands included within Monsanto's Vegetable Seeds Division, we find it imperative to align our disease resistance terminology. This alignment will ensure clarity internally and to you, our valued customers.

As part of the alignment initiative, we agreed on one uniform approach to describing disease trait terminology and abbreviations to be consistent with what is recommended by the International Seed Federation (ISF). These new standards apply to all Monsanto Vegetable Seed varieties on a global scale and are effective immediately.

Going forward, the Monsanto Vegetable Seeds Division will use the term "High Resistance" for the former used "Resistance" and "Intermediate Resistance" (IR) for all other levels of resistance. It is important to note that the level of resistance does not change, although the terminology changes. We hope this will alleviate confusion and create a more efficient working environment. Monsanto's Vegetable Seeds Division will continue to strive to provide the industry high quality products to meet market demands.

**HR = High Resistance.** The ability of a plant variety to highly restrict the activities of a specific pathogen or insect pest and/or to restrict the symptoms and signs of a disease, when compared to susceptible varieties. Highly Resistant varieties may exhibit some symptoms when specified pathogen or pest pressure is severe. New and/or atypical strains of the specific pathogen or pest may overcome the resistance, sometimes completely.

**IR = Intermediate Resistance.** The ability of a plant variety to restrict the growth and development of the specified pest or pathogen, but may exhibit a greater range of symptoms compared to highly resistant varieties. Intermediate Resistant plant varieties will still show less severe symptoms or damage than susceptible plant varieties when grown under similar environmental conditions and/or pest or pathogen pressure.

**Seminis**

**DE RUITER SEEDS**  
 HYBRID SEEDS

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**Seminis**

**DE RUITER SEEDS**  
 HYBRID SEEDS

DISEASE TERMINOLOGY			
Crop	Agent	Disease/Disorder	New Abbreviation
Bean	F	Anthraxnose	Cl
Bean	F	Aphanomyces root and hypocotyl rot	Ae
Bean	B	Bacterial brown spot	Pss
Bean	V	Bean common mosaic virus	BCMV
Bean	V	Bean common mosaic necrosis virus	BCMNV
Bean	V	Bean golden mosaic virus	BGMV
Bean	V	Bean yellow mosaic virus	BYMV
Bean	V	Beet curly top virus	BCTV
Bean	V	Beet mild curly top virus	BMCTV
Bean	V	Beet severe curly top virus	BSCTV
Bean	B	Common bacterial blight	Xap
Bean	V	Cucumber mosaic virus	CMV
Bean	F	Foot Rot	Fsp
Bean	F	Fusarium yellows	Fop
Bean	B	Halo blight	Psp
Bean	F	Rust	Ua
Bean	F	White mold	Ss
Broccoli	B	Black rot	Xcc
Broccoli	F	Downy mildew	Pp
Broccoli	F	Fusarium Yellows	Foc
Brussels Sprouts	F	Downy mildew	Pp
Brussels Sprouts	P	Tip burn	TB
Cabbage	B	Black rot	Xcc
Cabbage	I	Diamondback moth damage	Px
Cabbage	F	Downy mildew	Pp
Cabbage	F	Fusarium yellows	Foc
Cabbage	F	Ring spot	Mb
Cabbage	F	Sclerotinia stem rot and watery soft rot	Ss
Cabbage	I	Thrips damage	Tt
Carrot	F	Alternaria leaf blight	Ad
Carrot	B	Bacterial leaf blight	Xhc
Carrot	F	Black rot	Ar
Carrot	F	Cavity spot	Pv, Ps
Carrot	F	Cercospora leaf blight	Cc
Carrot	N	Northern root-knot nematode	Mh
Carrot	F	Powdery mildew	Eh
Carrot	N	Southern root-knot nematode	Ma/Mi
Cauliflower	F	Downy mildew	Pp
Cauliflower	F	Ring spot	Mb
Cauliflower	F	Sclerotinia stem rot and watery soft rot	Ss
Cauliflower	F	Verticillium wilt	Va/Vd
Cauliflower (Tropical Cauliflower)	B	Black rot	Xcc
Celery	F	Fusarium yellows and wilt	Foa
Chinese Cabbage	F	Club root	Pb
Chinese Cabbage	F	Downy mildew	Pp
Chinese Cabbage	V	Turnip mosaic virus	TuMV
Cucumber	B	Angular leaf spot	Pls
Cucumber	F	Anthraxnose	Co
Cucumber	B	Bacterial wilt	Et
Cucumber	F	Beet pseudo yellowing virus	BPYV
Cucumber	V	Cucumber green mottle mosaic virus	CGMMV
Cucumber	V	Cucumber mosaic virus	CMV
Cucumber	V	Cucumber vein yellowing virus	CVYV
Cucumber	V	Cucurbit yellow stunting disorder virus	CYSDV
Cucumber	F	Downy mildew	Pcu
Cucumber	F	Fusarium crown and root rot	For
Cucumber	F	Fusarium wilt	Foc
Cucumber	F	Gummy stem blight	Db
Cucumber	V	Kyuri green mottle mosaic virus	KGMMV
Cucumber	V	Papaya ringspot virus	PRSV
Cucumber	F	Phomopsis root rot (black root rot)	Ps
Cucumber	F	Powdery mildew	Gc
Cucumber	F	Powdery mildew	Px
Cucumber	F	Scab	Ccu
Cucumber	F	Target spot	Cca
Cucumber	V	Watermelon mosaic virus	WMV
Cucumber	V	Zucchini yellow mosaic virus	ZYMV
Eggplant	B	Bacterial wilt	Rs
Eggplant	V	Cucumber mosaic virus	CMV
Eggplant	F	Fusarium wilt	Fom

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DISEASE TERMINOLOGY			
Crop	Agent	Disease/Disorder	New Abbreviation
Eggplant	Ph	Little leaf disease	LL
Eggplant	N	Root knot nematode	Mi
Eggplant	V	Tomato mosaic virus	ToMV
Eggplant	V	Tomato spotted wilt virus	TSWV
Eggplant	F	Verticillium wilt	Va/Vd
Gourd	V	Cucumber green mottle mosaic virus	CGMMV
Gourd (Bitter Gourd)	F	Downy mildew	Pcu
Gourd (Bottle Gourd)	F	Powdery mildew	Px
Gourd (Bottle Gourd)	V	Watermelon mosaic virus	WMV
Gourd (Ridge Gourd)	F	Downy mildew	Pcu
Gourd (Ridge Gourd)	V	Luffa yellow mosaic virus	LYMV
Gourd (root-stock)	F	Fusarium crown and foot rot	Fsc
Gourd (root-stock)	F	Fusarium wilt	Fol
Gourd (root-stock)	F	Phomopsis black rot	Ps
Gourd (root-stock)	F	Phytophthora root rot	Pc
Gourd (root-stock)	F	Rhizoctonia root rot	Rs
Gourd (root-stock)	N	Root knot nematode	Mi
Leek	F	Rust	Pa
Leek	F	White-tip	Pp
Leek	V	Iris yellow spot virus	IYSV
Leek	V	Leek yellow stripe virus	LYSV
Lettuce	V	Lettuce big-vein virus	MLBVV
Lettuce	P	Bolting	Bt
Lettuce	B	Corky root	Ss
Lettuce	F	Downy mildew	Bl
Lettuce	F	Fusarium wilt	Fol
Lettuce	V	Groundnut ringspot virus	GRSV
Lettuce	B	Leaf spot	Xcv
Lettuce	V	Lettuce mosaic virus	LMV
Lettuce	V	Lettuce necrotic spot virus	LNSV
Lettuce	I	Nasonovia	Nr
Lettuce	F	Powdery mildew	Ec
Lettuce	F	Sclerotinia drop	Sm
Lettuce	P	Tipburn	TB
Lettuce	V	Tomato bushy stunt virus	TBSV
Lettuce	V	Tomato chlorotic spot virus	TCSV
Lettuce	V	Tomato spotted wilt virus	TSWV
Lettuce	F	Verticillium wilt	Vd
Melon	F	Alternaria leaf blight	Ac
Melon	F	Anthraxnose	Co
Melon	I	Aphids	Ag
Melon	B	Bacterial fruit blotch	Aac
Melon	V	Cucumber mosaic virus	CMV
Melon	V	Cucumber vein yellowing virus	CVYV
Melon	V	Cucurbit aphid-borne yellows virus	CABYV
Melon	F	Downy mildew	Pcu
Melon	F	Fusarium wilt	Fom
Melon	F	Gummy stem blight	Db
Melon	V	Melon necrotic spot virus	MNSV
Melon	V	Papaya ringspot virus	PRSV
Melon	F	Phomopsis root rot	Ps
Melon	F	Powdery mildew	Gc
Melon	F	Powdery mildew	Px
Melon	P	Sulfur damage	S
Melon	V	Watermelon mosaic virus	WMV
Melon	V	Zucchini yellow mosaic virus	ZYMV
Okra	I	Jassid	Ab
Okra	V	Yellow vein mosaic virus	OYVMV
Onion	F	Basal rot	Foc
Onion	F	Downy mildew	Pd
Onion	V	Iris yellow spot virus	IYSV
Onion	F	Pink root	Pt
Onion	F	Purple blotch	Ap
Onion	F	Stemphylium leaf blight	Sv
Onion	F	Twister	Cg
Pea	F	Aphanomyces root rot	Ae
Pea	F	Ascochyta leaf and pod spot	Aps
Pea	B	Bacterial blight	Psp
Pea	V	Bean yellow (Pea) mosaic virus	BYMV
Pea	F	Botrytis	Bc

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DISEASE TERMINOLOGY			
Crop	Agent	Disease/Disorder	New Abbreviation
Pea	F	Downy mildew	Pv
Pea	F	Near wilt	Fop
Pea	V	Pea enation mosaic virus	PEMV
Pea	V	Pea leaf roll virus	BLRV
Pea	V	Pea seed-borne mosaic virus	PSbMV
Pea	F	Powdery mildew	Ep
Pea	F	White mold	Ss
Pea	F	Wilt	Fop
Pepper	F	Anthraxnose	Ca, Cc, Cg
Pepper	B	Bacterial spot	Xcv
Pepper	B	Bacterial wilt	Rs
Pepper	V	Capsicum chlorosis virus	CaCV
Pepper	F	Cercospora leaf spot	Cc
Pepper	V	Chili vein mottle virus	ChiVMV
Pepper	V	Cucumber mosaic virus	CMV
Pepper	V	Groundnut bud necrosis virus (Peanut bud necrosis)	GBNV
Pepper	V	Groundnut ringspot virus	GRSV
Pepper	V	Pepper mottle virus	PepMoV
Pepper	V	Pepper yellow mosaic virus (formerly PVYm)	PepYMV
Pepper	F	Phytophthora blight	Pc
Pepper	V	Potato virus Y	PVY
Pepper	F	Powdery mildew	Lt
Pepper	N	Southern root-knot nematode	Mi/Ma/Mj
Pepper	V	Tobacco etch virus	TEV
Pepper	V	Tobamovirus	Tm
Pepper	V	Tomato spotted wilt virus	TSWV
Pepper	F	Verticillium dahliae	Vd
Radish	F	Clubroot	Pb
Radish	F	Downy mildew	Pp
Radish	F	Fusarium Yellows	For
Radish	V	Turnip mosaic virus	TuMV
Spinach	F	Anthraxnose	Cd
Spinach	F	Cladosporium leaf spot	Cv
Spinach	V	Cucumber mosaic virus	CMV
Spinach	F	Downy mildew	Pfs
Spinach	F	Fusarium wilt	Fos
Spinach	F	Stemphylium leaf spot	Sb
Spinach	F	White rust	Ao
Squash	V	Cucumber green mottle virus	CGMMV
Squash	V	Cucumber mosaic virus	CMV
Squash	F	Downy mildew	Pcu
Squash	F	Fusarium crown and foot rot	Fsc
Squash	F	Fusarium wilt	Foc
Squash	F	Gummy stem blight	Db
Squash	N	Northern root knot nematode	Mh
Squash	V	Papaya ringspot virus	PRSV
Squash	F	Phomopsis black root rot	Ps
Squash	F	Phytophthora root rot	Pc
Squash	F	Powdery mildew	Gc
Squash	F	Powdery mildew	Px
Squash	F	Rhizoctonia root rot	Rs
Squash	I	Silvering	S
Squash	N	Southern root knot nematode	Mi
Squash	V	Squash leaf curl virus	SLCV
Squash	V	Watermelon mosaic virus	WMV
Squash	V	Zucchini yellow mosaic virus	ZYMV
Sweet corn	F	Anthraxnose leaf blight and anthracnose stalk rot	Cg
Sweet corn	B	Bacterial stalk and top rot	Ecc, Ecz
Sweet corn	F	Common rust	Ps
Sweet corn	F	Common smut	Um
Sweet corn	F	Downy mildew	Pp
Sweet corn	F	Head smut	Sr
Sweet corn	V	Maize dwarf mosaic virus	MDMV
Sweet corn	F	Northern corn leaf blight	Et
Sweet corn	F	Southern corn leaf blight and stalk rot	Bm
Sweet corn	F	Southern rust	Pp
Sweet corn	B	Stewart's disease (bacterial wilt)	Pst
Sweet corn	V	Sugar cane mosaic virus	SCMV
Tomato	F	Alternaria stem canker	Aal
Tomato	B	Bacterial canker	Crm

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