

Differential Sets

Bean common mosaic virus (BCMV) and Bean common mosaic necrosis virus (BCMNV) - Bean

Differential hosts	genes	Strains									
		NL 1	NL 7	NL 8	US 5	NL 6	US 2	NL 2	NL 3*	NL 5*	NL 4
Dubbele Witte*, Sutter Pink, Stringless Green Refuge	-	S	S	S	S	S	S	S	S	S	S
Imuna*, Redlands Greenleaf C, Puregold Wax	<i>bc-u, bc-1</i>	HR	S	HR	S	S	S	S	S	S	S
Great Northern UI 123*, Redlands Greenleaf B	<i>bc-u, bc-1²</i>	HR	HR	HR	S	S	HR	HR	S	S	S
Michelite 62*, Sanilac, Red Mexican UI 34	<i>bc-u, bc-2</i>	HR	HR	S	HR	HR	S	S	S	S	HR
Pinto UI 114	<i>bc-u, bc-1, bc-2</i>	HR	HR	HR	HR	HR	S	S	S	S	HR
Great Northern UI 31*, Monroe,	<i>bc-u, bc-1², bc- 2²</i>	HR	HR	HR	HR	HR	HR	HR	HR	HR	S
Red Mexican UI 35*, IVT 7214	<i>bc-u, bc-2, bc-3</i>	HR	HR	HR	HR	HR	HR	HR	HR	HR	HR
Widusa*, Black Turtle Soup I	<i>l</i>	HR	HR	HR*	HR	HR**	HR	HR**	HR*	HR*	HR
Top Crop, Improved Tendergreen*, Jubila	<i>bc-1, l</i>	HR	HR	HR*	HR	HR**	HR	HR**	HR*	HR*	HR
Amanda*	<i>bc-1², l</i>	HR	HR	HR*	HR	HR**	HR	HR	HR**	HR*	HR
IVT 7233*	<i>bc-1², bc-2², l</i>	HR	HR	HR*	HR	HR	HR	HR	HR*	HR*	HR

S = susceptible (mosaic and/or leaf deformation and/or leaf rolling)

HR* = usually all plants with local vein necrosis or pinpoint sized lesions and systemic necrosis usually leading to plant death, not temperature dependent

HR** = little or no local necrosis, systemic necrosis usually leading to plant death, the number of plants with systemic necrosis increases with temperature

HR = highly resistant (no symptoms)

*differential hosts and isolates that are used by the seed sector

References

Compendium of Bean Diseases APS (1991)

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Miklas, P. N., Larsen, R. C., Riley, R. and Kelly, J. D. 2000. Potential Markers-assisted selection for bc-1² resistance to bean common mosaic potyvirus in common bean. *Euphytica* 116: 211-219.

Strausbaugh, C. A., Miklas, P. N., Singh, S. P., Myers, J. R. and Forster R. L. 2003. Genetic Characterization of Differential Reactions Among Host Group 3 Common Bean Cultivars to NL-3 K Strain of Bean common mosaic necrosis virus

Protocol

CPVO. See <http://www.cpvo.europa.eu/> for a protocol on disease resistance testing

For more information contact the ISF Secretariat at isf@worldseed.org

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