DIFFERENTIAL SET

Peronospora valerianellae – **Corn salad**

Downy mildew (*Peronospora valerianellae*) is a biotrophic, seed borne pathogen of corn salad (*Valerianella locusta*) which causes deformation and sporulation on leaves of seedlings, Resistance genes have been introduced into commercial varieties. A race designation system for downy mildew with five races and *Valerianella locusta* differentials was published in 2002 (Pietrek and Zinkermagel 2002).
Only the two races Pv: 1 and Pv: 2 are used for registration of varieties and plant breeder rights. Isolates and differentials are maintained and are available through GEVES-MatRef reference material collection.
The other races mentioned in Pietrek and Zinkermagel 2002 (races Pv: 3, Pv: 4 and Pv: 5) are not actively used across the seed sector and therefore not further validated in this differential set.

Differentials	**ISF Code and races** **Gene (s)**	Pv: 1	Pv: 2
Gala		HR	S
Verte de Cambrai		S	HR
Dali, Matisse, Princess		HR	HR

Explanatory Note:

When evaluating plant varieties for resistance to specific pathogens or pests, the following classifications are used to describe their response:

- **S** – Susceptible
- **HR** – Highly Resistant

All groups/races and differentials are actively used across the seed sector

You can find further information on these definitions in the following ISF document: https://worldseed.org/document/definitions-of-the-terminology-plants-pests-v-o-seed-industry-2022/

References:

Pietrek, G., Zinkernagel, V. (2002). *Peronospora Valerianellae*, the Downy Mildew of Lamb's Lettuce (*Valerianelia Locusta*). In: Spencer-Phillips, P.T.N., Gisi, U., Lebeda, A. (eds) Advances in Downy Mildew Research. Springer, Dordrecht. https://doi.org/10.1007/0-306-47914-1_7

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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