

## Varietal Resistance to New Dominant Genotype of *Phytophthora infestans* in Great Britain (GB)

Following the introduction of the A2 mating type of *Phytophthora infestans* into Europe in the late 1970s, new strains of late blight pathogen have subsequently developed in all countries. In GB since 2006, this culminated in a new genotype, 13\_A2, dominating the GB population of *P. infestans* and this was widely reported to the industry. This 13\_A2 genotype has been found to be more aggressive and virulent than other strains and makes up more than 70% of GB population. Anecdotal reports suggested that some varieties rated as relatively resistant to foliar late blight were more susceptible when challenged by 13\_A2 genotype. In 2008, a 3 year programme of testing using the new genotype was part funded by Potato Council (PCL) to re-evaluate the resistance of varieties currently rated as 5 or greater to foliar late blight. This work was undertaken in GB by SASA, SCRI, SAC and Sarvari Research Trust. Only varietal ratings calculated from at least 2 tests, the same basis as for PCL-funded Independent Variety Trials, have been considered.



This testing revealed a number of significant shifts in the ratings for some existing varieties when tested using 13\_A2 genotype compared with the historic ratings for the varieties. These are listed below. Varieties with an original resistance rating of 5 or greater which were tested with 13\_A2, but for which no significant change was noted, are not shown. The foliar late blight ratings for the listed varieties will be amended on the British Potato Variety Database.

Variety	No of tests with 13_A2	Foliar late blight score	
		13_A2 genotype	Historic
<b>Standard reference varieties</b>			
Duke of York (IVT)	10	3	2
Home Guard (NL, IVT)	5	4	2
Bintje (NL, IVT)	14	3	3
Russet Burbank (IVT)	6	3	3
Valor (NL, IVT)	10	5	5
Sarpo Mira (NL, IVT)	14	8	7
Cara (NL, IVT)	13	5	7
<b>Existing varieties</b>			
Accent	2	3	5
Banba	2	5	8
Barna	2	4	6
Cosmos	4	4	6
Druid	4	5	8
Dundrod	2	3	5
Galactica	3	3	7
Habibi	2	4	7
Harlequin	2	4	6
Harmony	4	5	3
Kerr's Pink	2	4	6
Kikko	2	5	8
Kondor	2	4	6
Lady Balfour	12	4	8
Markies	7	5	7
Midas	2	5	8
Morene	2	4	6
Nadine	3	4	6
Orla	11	4	8
Pentland Dell	4	4	6
Pentland Ivory	2	5	3
Premiere	2	3	6
Remarka	3	4	7
Rembrandt	2	4	5
Richhill	2	5	5*
Robinta	4	4	8
Romano	3	4	7
Sante	11	4	7
Setanta	6	4	8
Slaney	5	5	7
Spunta	2	4	7
Stirling	5	4	8
Sunset	2	5	7
Verity	4	4	7