

ABSTRACT

Miller, J. S., Hamm, P. B., and Johnson, D. A. 1997. Characterization of *the Phytophthora infestans* population in the Columbia Basin of Oregon and Washington from 1992 to 1995. *Phytopathology* 87:656-660.

Isolates of *Phytophthora infestans* collected from 1992 to 1995 from potato fields in the Columbia Basin of Oregon and Washington were analyzed for compatibility type, metalaxyl sensitivity, and *glucose-6phosphate isomerase (Gpi)* genotype. In 1992, 30 of 31 isolates were of the US-1 multilocus genotype. A single metalaxyl-resistant isolate of the US-6 (A1 *Gpi 861100*) genotype was found near the end of the growing season. In 1993, only 2 of the 59 isolates collected were A1 isolates with *Gpi 861100*. Ten isolates were of the A2 compatibility type, seven with

Gpi 100/111, two with *Gpi 100/100*, and one was undetermined. The remaining isolates were metalaxyl-resistant A1 compatibility types with either *Gpi 100/100* or *100/111*. The first A2 isolates in the Columbia Basin were found in 1993. In 1994, 10 of 18 isolates were of the US-1 genotype. The remaining isolates were US-6 and US-8 genotypes. In 1995, 97% of 268 isolates tested were of the US-8 genotype. Five isolates were A2 compatibility type with *Gpi 1001122*. One A2, metalaxyl-resistant isolate was *Gpi 100/100/111*, and two A1 isolates were *Gpi 1001111122*. The population of *P. infestans* quickly changed between 1992 and 1995, from a population comprised almost exclusively of the US-1 genotype to a population represented by new or recombinant genotypes.