

Review of *Plasmopara halstedii* Races Present in Argentina

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Introduction

Little information has been available concerning the identification of *P. halstedii* races in Argentina. Gulya et al. (1991) studied the reaction of differential lines inoculated with two isolates from Argentina (Pergamino & Venado Tuerto) and identified races 3 and 7. Ljubich (1991) studied an isolate from Pergamino and obtained a similar pattern as that described for race 7. All these isolates were issued from the Central Sunflower Crop Region. So the objective of this work was to study the Argentinian *P. halstedii* races present in different sunflower crop regions.

Materials and Methods

Isolates obtained from the three sunflower crop regions were studied during 1993, 1994 and 1996 : South Region (Balcarce, Tandil), Central Region (Venado Tuerto, Junin) and North Region (Oran).

Differential lines were inoculated with the different isolates according to the standard methodology (Cohen and Sackston, 1973).

Results and Discussion

The reaction of the sunflower differential lines was the same independently of the isolate studied. The results are similar to those of race 7 (Table 1) described by Gulya et al. (1991) for Argentina. Also these results are in agreement with those obtained by Ljubich (1991). Based on his results, he considered that a new race (or races) was (were) present in Argentina although he did not give it (them) any denomination.

We could not detect race 3 in the isolates we studied. Perhaps a bigger number of samples should be tested in order to know the relative abundance of each race.

Table 1 : Reaction of Sunflower Lines to Various Argentinian Isolates of *Plasmopara halstedii*

Sunflower Lines	Race 7*	Isolates				
		Balcarce 1993 1996	Tandil 1993	Junín 1996	Vena Tuerto 1994	Oran 1993
HA 300	S	S	S	S	S	S
RHA 265	S	S	S	S	S	S
HA 61	R	R	R	R	R	R
DM-2	S	S	S	S	S	S
RHA 325	R	R	-	R	-	-
RHA 340	R	R	R	R	R	R
RHA 274	R	R	R	R	R	R

* : From Gulya et al., 1991

- : not performed

References

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