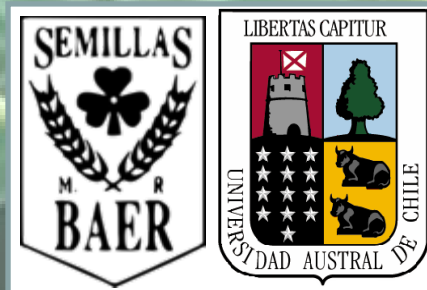


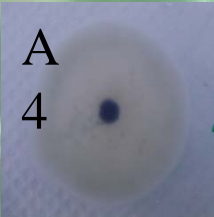
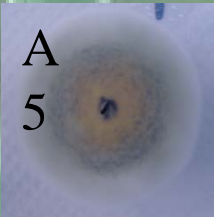
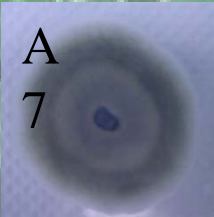
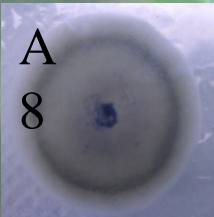


Virulence analysis of different haplotypes of *Colletotrichum lupini* isolates from southern Chile.

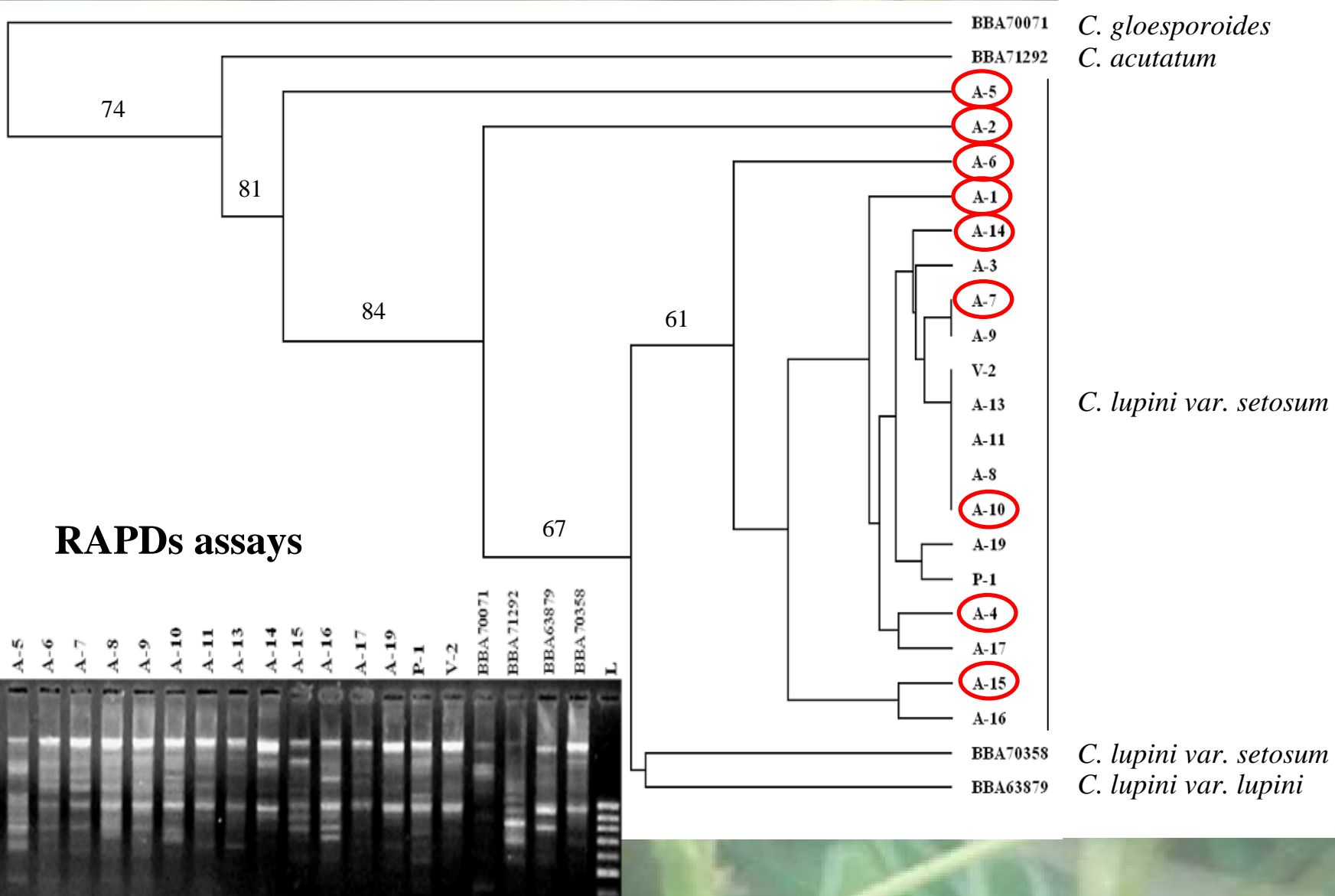
R. Riegel, Almarza M., Von Baer E. and M. Muñoz



The objective of this study was to determine the virulence present in some representative isolates of *C. lupini* from Chile

	Isolate	Location /	Host
	A-1	Gorbea / Chile	<i>L. albus</i> accession (sweet)
	A-2	Cajón / Chile	<i>L. albus</i> cultivar TypTop
	A-3	Cajón / Chile	<i>L. albus</i> accession (sweet)
	A-4	Cajón / Chile	<i>L. angustifolius</i> accession (sweet)
	A-5	Traiguén / Chile	<i>L. albus</i> cultivar Rumbo
	A-6	Temuco / Chile	<i>L. albus</i> cultivar Rumbo
	A-7	Boroa / Chile	<i>L. albus</i> accession (bitter)
	A-8	Boroa / Chile	<i>L. albus</i> accession (bitter)
	A-9	Boroa / Chile	<i>L. albus</i> cultivar Perla
	A-10	Cajón / Chile	<i>L. angustifolius</i> cultivar Ruso
	A-11	Cajón / Chile	<i>L. angustifolius</i> accession (sweet)
	A-13	Perquenco / Chile	<i>L. albus</i> cultivar Rumbo
	A-14	Cajón / Chile	<i>L. polyphyllus</i> accession (bitter)
	A-15	Victoria / Chile	<i>L. angustifolius</i> accession (bitter)
	A-16	Victoria / Chile	<i>L. albus</i> -
	A-17	Allipén / Chile	<i>L. albus</i> cultivar Rumbo
	A-19	Lautaro / Chile	<i>L. albus</i> accession (bitter)
	P-1	Gorbea / Chile	<i>L. albus</i> -
	V-2	Vilcún / Chile	<i>L. albus</i> -

Previous molecular analysis



Method

- **Primary infection (Feiler and Nierenberg, 2004)**
 - Soil + Peat-straw-sand (3:1:1) mixture + lime + malt extract + mycelium
- **Completely randomized block design with 27 treatments**
 - Three lupin genotypes (cv. 'Kiev Mutant', cv. 'Pecosa-Baer' and '246-9') inoculated with nine isolates
 - Four replications per treatment; each replication consisted of one pot and five seeds per pot
- **Seedlings kept at greenhouse at 20-25°C and 65% of humidity**
- **Plants were rated at three weeks after inoculation based on presence or absence of symptoms**

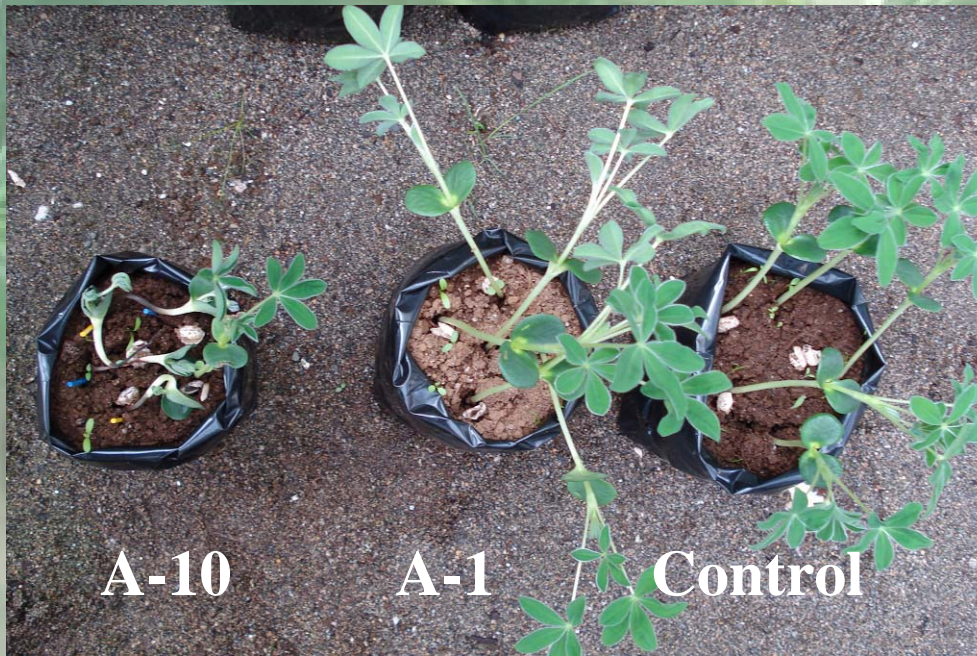


Results



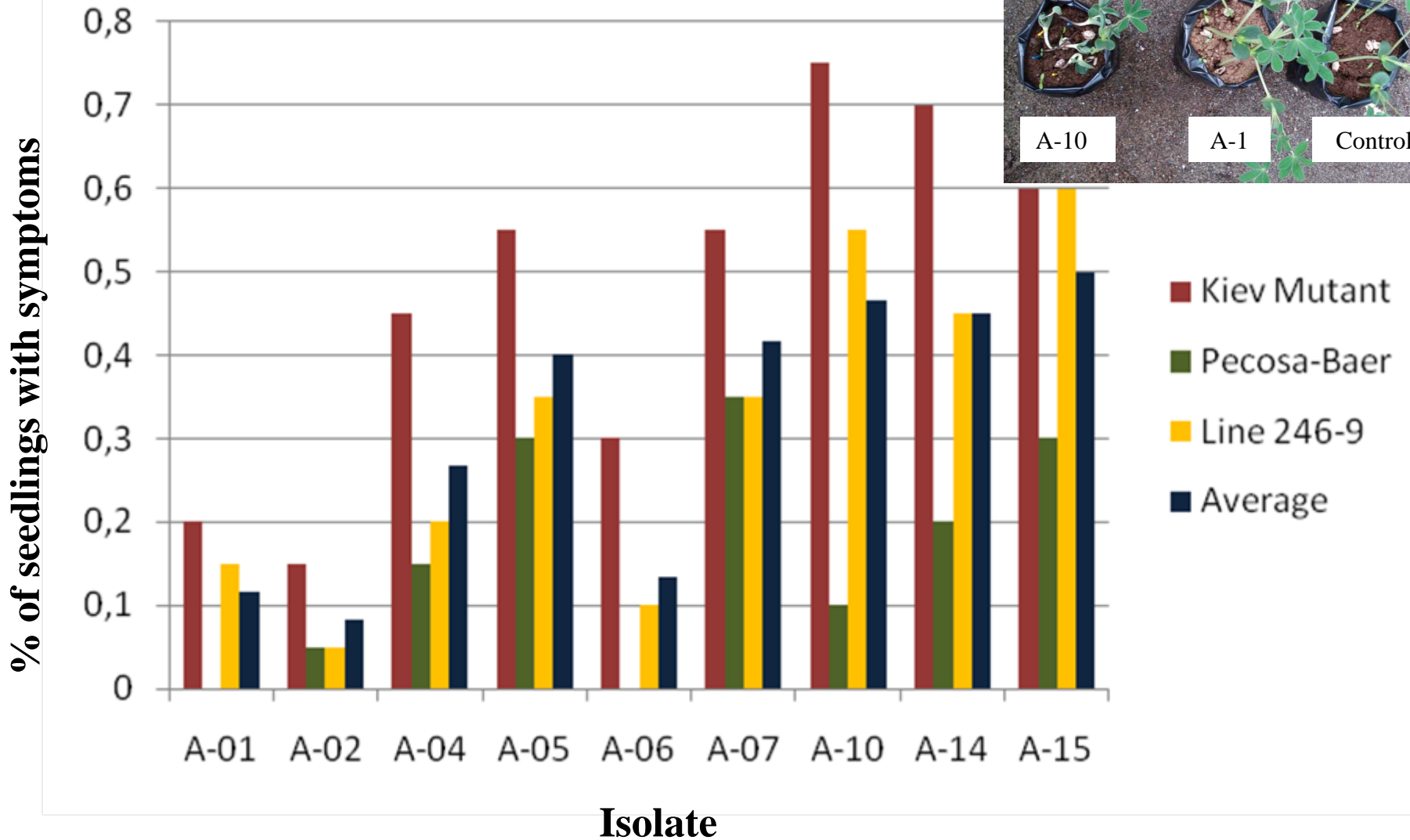
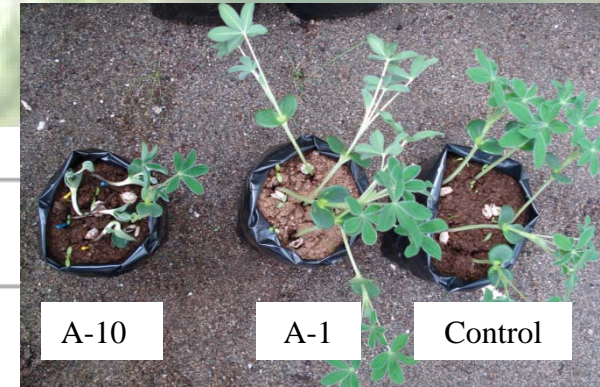


Pecosa-Baer



Kiev Mutant

Results

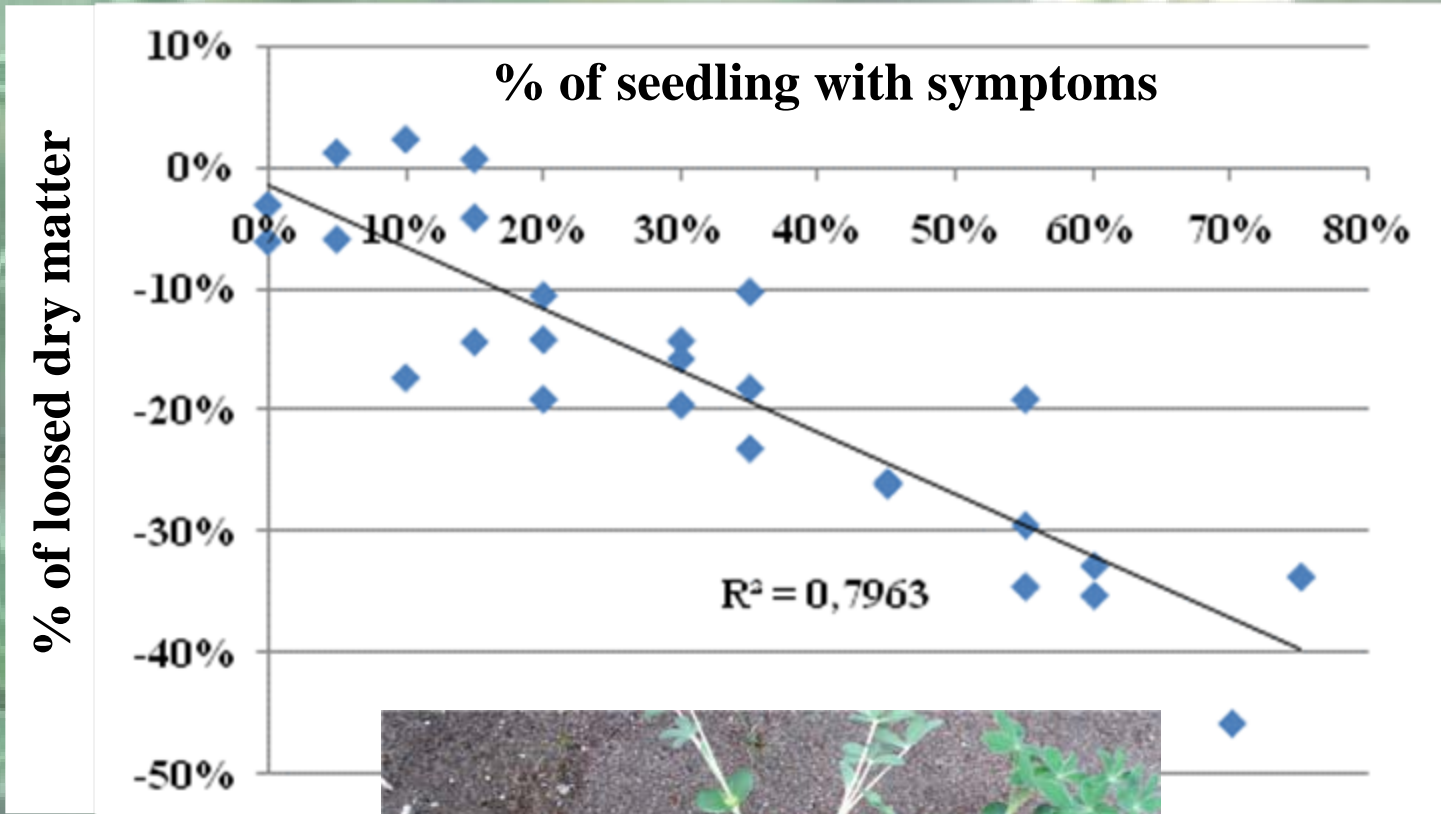


Results

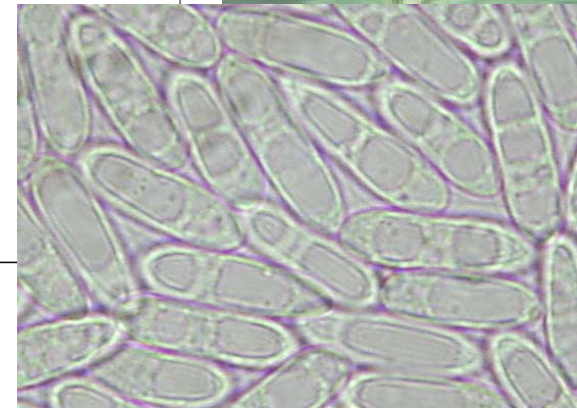
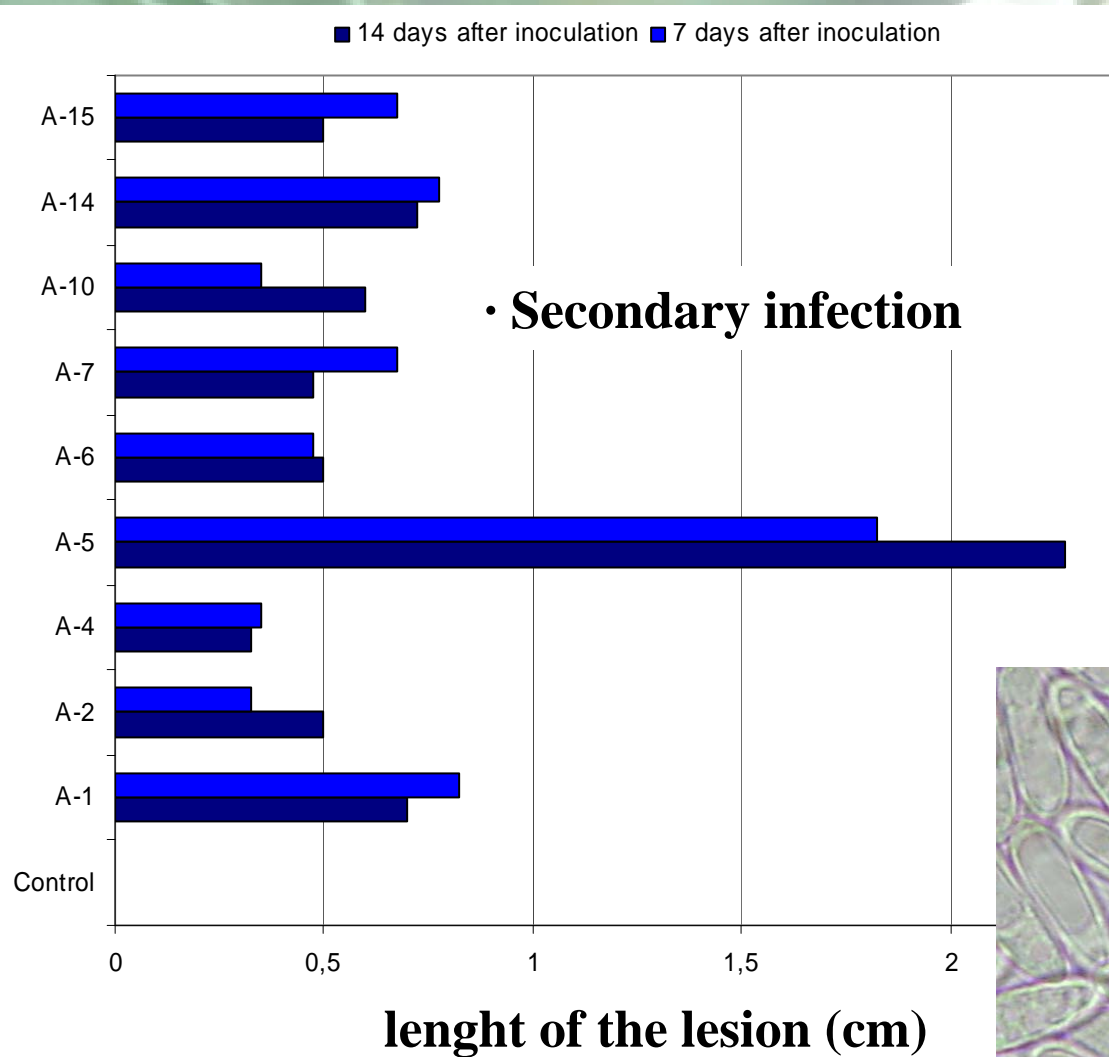
Isolates	Lupin genotypes			
	cv. 'Kiev Mutant'	cv. 'Pecosa-Baer'	Line '246-9'	Average
A-1	20 a ¹	0 a	15 ab	12a
A-2	15 a	5 a	5 a	8a
A-4	45 abc	15 abc	20 abc	27ab
A-5	55 abc	30 bc	35 bcd	40 b
A-6	30 ab	0 a	10 ab	13a
A-7	55 abc	35 c	35 bcd	42 b
A-10	75 c	10 ab	55 d	45 b
A-14	70 bc	20 abc	45 cd	47 b
A-15	60 bc	30 bc	60 d	50 b
Average	47 A	16 C	31 B	

¹ Percentage of seedlings with symptoms of anthracnose infection. Values followed by the same small letter within a column and capital letters in a line are not significantly different at $P < 0.05$ according to Tukey's test.

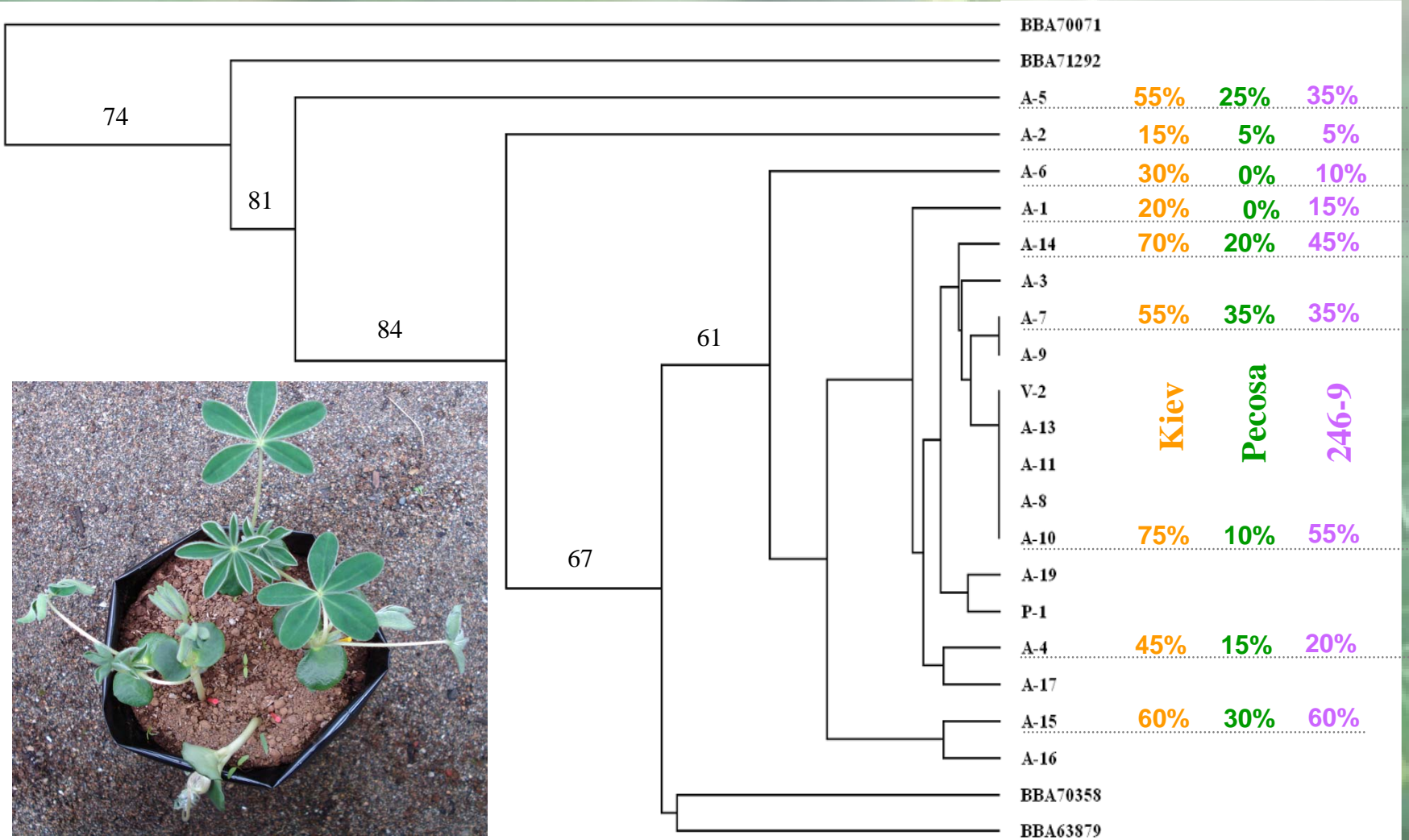
Results



Results



Results



0.1

% of seedling with symptoms

Conclusion

- The pathogenicity of all isolates was confirmed.
- The severity of the disease was variable and dependent on the isolate and the lupin genotype
- No significant interaction was found between isolate and lupin genotype.
- It is obvious that at least in Chile, no single isolate will suffice for resistance screening.