

Identification of a PVY isolate breaking down the resistance of *va*-genotype tobacco in China

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0 Introduction

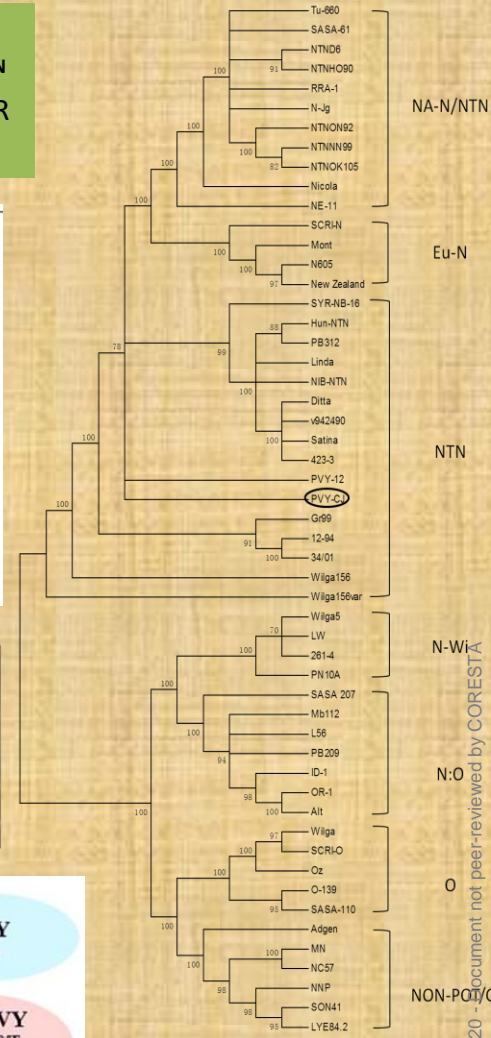
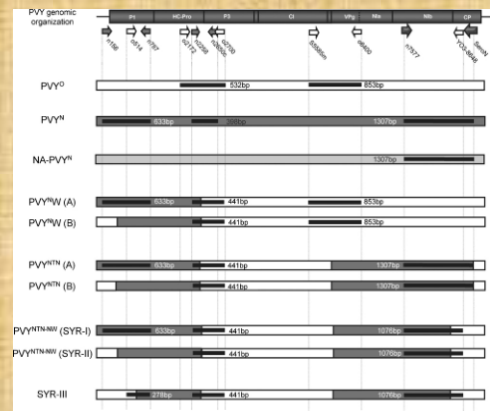
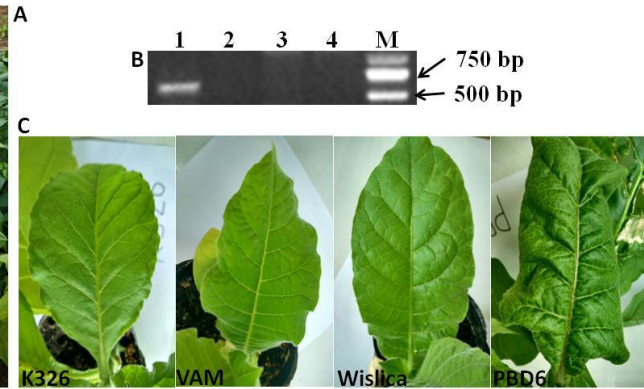
- ➔ PVY and tobacco leaf production
- ➔ *va* and tobacco breeding
- ➔ Resistance breaking of *va*-gene

1 Isolation and identification

- ➔ Isolation of "PVY-CJ"
- ➔ Inoculation on *va*-genotype varieties

2 Characterization of PVY-CJ

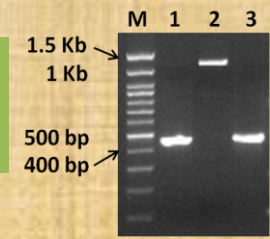
- ➔ multiplex PCR assay: PVY^{NTN}
- ➔ the whole genome by RT-PCR
- ➔ phylogenetic analysis



3 Discussion and Prospect

A substitution of K105E of VPg lead to the breaking of resistance the **origin** of the resistance-breaking virus
 Few reports from China and PVY-resistant breeding

M. Chikh Ali et al. / Journal of Virological Methods / 2010



	80	90	100	110	120	130
PVY-CJ.SEQ	TGAQIEENVYADIRD	IQERFSDVRE	KMVEDDE	IELQALGSNTT	IHAYFRKDW	
HUN-NTN.SEQ	TGAQIEENVYADIRD	IQERFSDVRE	KMVEDDE	IELQALGSNTT	IHAYFRKDW	
LINDA.SEQ	TGAQIEENVYADIRD	IQERFSDVRE	KMVEDDE	IELQALGSNTT	IHAYFRKDW	
SATINA.SEQ	TGAQIEENVYADIRD	IQERFSDVRE	KMVEDDE	IELQALGSNTT	IHAYFRKDW	
SYR-II-BE1.SEQ	TGAQIEENVYADIRD	IQERFSDVRE	KMVEDDE	IELQALGSNTT	IHAYFRKDW	
WILGA_156.SEQ	TGAQIEENVYADIRD	IQERFSDVRE	KMVEDDE	IELQALGSNTT	IHAYFRKDW	
Consensus	tgaqieenvyadird	iqerfsdvr	kmvedde	ielqalgsntt	ihayfrkdw	

