



*Empresa Brasileira de Pesquisa Agropecuária
Embrapa Uva e Vinho
Ministério da Agricultura, Pecuária e do Abastecimento*

13º Encontro de Iniciação Científica e 9º Encontro de Pós-graduandos da Embrapa Uva e Vinho

16 e 17 de julho de 2015
Embrapa Uva e Vinho
Bento Gonçalves, RS

Resumos

Editores

*Patrícia Silva Ritschel
Marco Antônio Fonseca Conceição
Sílvio André Meirelles Alves
João Caetano Fioravanço
Marcos Botton
Samar Velho da Silveira
Susana de Souza Lima*

Bento Gonçalves, RS
2015

Exemplares desta publicação podem ser adquiridos na:

Embrapa Uva e Vinho

Rua Livramento, 515
95700-000 Bento Gonçalves, RS, Brasil
Caixa Postal 130
Fone: (0xx)54 3455-8000
Fax: (0xx)54 3451-2792
<http://www.embrapa.br/uva-e-vinho>

Comitê de Publicações

Presidente: César Luís Girardi
Secretária-Executiva: Sandra de Souza Sebben
Membros: Adeliano Cargnin, Alexandre Hoffmann, Ana Beatriz Costa Czermainski, Henrique Pessoa dos Santos, João Caetano Fioravanço, João Henrique Ribeiro Figueredo, Jorge Tonietto, Rochelle Martins Alvorcem e Viviane Maria Zanella Bello Fialho

Produção gráfica da capa: Fábio Ribeiro dos Santos

1ª edição

1ª impressão (2015): 200 exemplares

Todos os direitos reservados.

A reprodução não-autorizada desta publicação, no todo ou em parte, constitui violação dos direitos autorais (Lei nº 9.610).

Dados Internacionais de Catalogação na Publicação (CIP)
Embrapa Uva e Vinho

Encontro de Iniciação Científica da Embrapa Uva e Vinho (13. : 2015 : Bento Gonçalves, RS).

Resumos / 13º Encontro de Iniciação Científica e 9º Encontro de Pós-graduandos da Embrapa Uva e Vinho, Bento Gonçalves, RS, 16 a 17 de julho de 2015 ; editores-técnicos, Patrícia Silva Ritschel... [et al.] – Bento Gonçalves : Embrapa Uva e Vinho, 2015.
72 p.

ISSN 2358-3479

Editores técnicos: Patrícia Silva Ritschel, Marco Antônio Fonseca Conceição, Silvio André Meirelles Alves, João Caetano Fioravanço, Marcos Botton, Samar Velho da Silveira e Susana de Souza Lima.

1. Pesquisa. 2. Embrapa Uva e Vinho. 3. Iniciação científica. 4. Ensino superior. 5. Agricultura. I. Ritschel, Patrícia Silva, ed. II. Encontro de pós-graduandos da Embrapa Uva e Vinho (9. : 2015 : Bento Gonçalves, RS). III. Título.

CDD 630.72 (21. ed.)

©Embrapa 2015

Survey of Brazilian isolates of *Grapevine rupestris stem pitting-associated virus* and characterization of the coat protein gene

Cláudia Fernanda Carraro Lemes¹; Thor Vinícius Martins Fajardo²; Osmar Nickel²

Grapevine rupestris stem pitting-associated virus (GRSPaV) is one of the most common viruses of grapevine. It is implicated in the graft-transmissible disease rupestris stem pitting of the rugose wood complex. GRSPaV is not mechanically transmissible and natural vectors are unknown. The disease is responsible for graft incompatibility, delayed bud burst, severe decline, stem pitting, and even death of vines. Studies have revealed the genetic variability of the virus, which may reflect the unclear pattern of its biological effects. Molecular researches have identified, at least, seven strains. The objective of the research was to perform the molecular characterization of the coat protein (CP) gene of Brazilian GRSPaV isolates and a restricted survey. Nine grapevine samples were obtained from grapevine collections in Brazil. The evaluated plants exhibited symptoms related to virus disease or were asymptomatic. The Brazilian isolates of GRSPaV were characterized in enriched dsRNA extracted from 30g of bark scrapings using CF11 cellulose. Sequencing data were generated from a complementary DNA library by Macrogen or Eurofins. The Illumina HiSeq2000 platform was used to generate the reads. CLC Genomics Workbench software was used for quality trimming and de novo contig assembly from the reads. All contigs were analyzed using NCBI's BLASTX program against the viral RefSeq database. To further confirm the results, GRSPaV selected contigs were individually analyzed using BLASTX against the GenBank database. Fifteen complete sequences of the GRSPaV CP gene (780 nucleotides, nt and 259 deduced amino acids, daa) were obtained from nine hosts: *Vitis vinifera* Cabernet Sauvignon, *V. labrusca* Isabel-samples 1 and 2, *V. flexuosa*, *V. vinifera* Syrah and *V. vinifera* CG90450 (2 CPs each) and *V. gigas*, *V. vinifera* Tempranillo and *V. vinifera* Italia (1 CP each). The fifteen CP sequences for the Brazilian isolates of GRSPaV were deposited in GenBank under accession numbers KT008367 through KT008381. The multiple alignments between these sequences showed identities ranging from 82% to 99% and, 93% to 100%, nt and daa, respectively, suggesting high variability among the CPs of Brazilian isolates. In 241 plants, sampled from accessions of grapevine germoplasm collections and from productive Brazilian vineyards, we have found GRSPaV infecting 94 samples (39%). Our study revealed that genetic diversity of GRSPaV is also present in Brazilian grapevine hosts and the information should be taken into consideration in symptomatological assessments and biological and molecular indexing.

Financial Support: Embrapa-SEG, MP2, Project 02.13.14.002

¹ Graduanda em Ciências Biológicas Bacharelado do Centro Universitário Univates, Lajeado, RS. Estagiária da Embrapa Uva e Vinho. Bolsista de Iniciação Científica PIBIC CNPq. E-mail: claudinhafcl@gmail.com

² Embrapa Uva e Vinho, CP 130, CEP 95700-000, Bento Gonçalves, RS, E-mails: thor.fajardo@embrapa.br; osmar.nickel@embrapa.br