ISSN 1519-2563

VIRUS

Reviews & Research

XX NATIONAL MEETING OF VIROLOGY

November, 1-4, 2009

Brasília, DF, Brazil

November, 2009
Volume 14
Supplement 1

S B V

JOURNAL OF THE BRAZILIAN SOCIETY FOR VIROLOGY

FICHA CATALOGRÁFICA
Preparada pela Biblioteca do
Instituto de Ciências Biomédicas da Universidade de São Paulo

Virus: Reviews and Research /Sociedade Brasileira de Virologia
Vol. 14 – Suplemento 1 – 2009 –Brasília, DF : A Sociedade, 1996-

Semestral (jan. e jun.)
Artigos em Inglês
ISSN: 1519-2563

Virologia – Periódicos I. Sociedade Brasileira de Virologia
ICB/SBIB. (1996) NLM-QW 160

Publisher: IMPRINTA EXPRESS LTDA (comercial@imprintaexpress.com.br)
(21) 3977.2666 – Rio de Janeiro – Brazil

This study shows for the first time PoNoV circulating in Brazilian pig herds and the high genetic diversity presented by those agents. Circulation of PEC mainly in asymptomatic animals might be a mechanism of virus persistence in pig population important on CaV epidemiology and evolution. The role played by CaV on animal and public health remains unknown.

Financial support: CAPES, CNPq, Instituto Oswaldo Cruz

059 - CURRENT SITUATION OF CLASSICAL SWINE FEVER IN BRAZIL.

Freitas[1*], T.R.P.; Esteves[1], E.G.; Caldas[2], L.A.Rosa[3], B., Silva-Junior, A.G.
1.Laboratório Nacional Agropecuário/MG - Ministério da Agricultura, Pecuária e Abastecimento (MAPA). 2. Universidade Federal do Rio de Janeiro. 3. Divisão de Suídeos, SDA/ DF-MAPA.
1*Correspond author. Laboratório Nacional Agropecuário/ MG. Ave. Rômulo Joviano, s/n. Box 50, CEP: 33600-000 - Pedro Leopoldo, Minas Gerais.
E-mail: taniafrei@hotmail.com

Classical Swine Fever (CSF) is a highly contagious viral disease of Suidae caused by CSF Virus (CSFV), a positive single-strand RNA virus (*Pestivirus*-Flaviviridae). CSF is considered the major cause of economic losses to the swine industries and pig farmers. The efficacy of CSF combat Programs developments in Brazil was studied yet in FREITAS et al. (2007). In present study the CSF - Control and Eradication program (CSFCEP) was evaluated from 2000 until July, 2009 including CSF outbreaks in North and North-East regions (out of CSF-Free Zone or infected area) and compared with CSF–Free Zone in the same period. The survey of CSF outbreaks and the tendency line were analyzed by quadratic trend model. Mann-Whitney test was applied to demonstrate the efficacy of CSFCEP. Around the world many programs to control and eradicate CSF were applied but without plain outcome (TERPSTRA et al., 1993). The advance on CSFCEP was evidenced by the number of CSF outbreaks drastically reduced in all country. In the Brazilian CSF-free zone established in 2001 the virus, was never reintroduced, proving that the zone is secure and stimulated others states to intensify all measures to be included in CSF Free-Zone. Nowadays, the CSF Free- Zone comprises 15 states from center-west, south, southeast, north and northeast regions, account for almost the totality of commercial swine farms. Mann Whitney analysis showed at 95% confidence level a significant difference ($p < 0.05$) of efficacy results of CSFCEP and oldest control program to control CSF. In contrast, at North and North-East regions (out of CSF-Free Zone, some CSF outbreaks still occur. The comparison of profiles from CSF outbreaks data (2000-2009) plotted showed an oscillatory curve with peaks of 12, 04, 07, 01, and 01 CSF outbreaks in 2001, 2003, 2007, and 2008, respectively. But, 21 CSF outbreaks were registered until July 2009. All CSF outbreaks were eliminated by stamping out measures. The emergence vaccination was recurred to avoid new outbreaks. Those results suggest that the efficacy of CSF eradication programs depends on the continuity of preventive strategies as rigorous vigilance for quick adequate action upon CSFV detection. But, to eradicate CSF beyond those measures a rigorous control of animal movement, backed up with serological investigations need to continue until no more outbreaks could be cited in all country.

060 - BARLEY AND CEREAL YELLOW DWARF VIRUS GENETIC DIVERSITY IN BRAZIL

Mar, T.B.[1]; Lau, D.[2]; Nhani, A. Jr.[2]; Schons, J.[3]; Yamazaki-Lau, E.[2]; Pereira, J.F.
1Bolsista PIBIC/CNPq; 2Embrapa Trigo, Passo Fundo, RS; 3Universidade de Passo Fundo – UPF, Passo Fundo, RS.
Email: dlau@cnpt.embrapa.br

Yellow dwarf disease (YDD) of wheat (*Triticum aestivum*), barley (*Hordeum vulgare*) and oat (*Avena* spp.) is one of the most important viral diseases of cereals worldwide. YDD is caused by virus transmitted by aphids in a circulative manner and limited to the phloem tissues of plants. The virus-vector relationship was used to discriminate virus species. Nowadays, based on genomic sequences, species are positioned in the genus *Luteovirus* (*Barley yellow dwarf virus* species) and *Polerovirus* (*Cereal yellow dwarf virus* species) in the family *Luteoviridae*. Surveys based on ELISA analysis indicated that *Barley yellow dwarf virus* – PAV are the predominant specie in Brazilian winter cereal crop regions. The objective of this study was to determine the coat protein (cp) sequence of Brazilian B/CYDVs isolates and to study their relationship in comparison to other isolates in the family *Luteoviridae*. In 2007 (14) and 2008 (28), 42 isolates from Brazilian South region (Rio Grande do Sul - 33, Santa Catarina - 2 and Paraná -7) were collected from *Avena* sp (26), *T. aestivum* (10), *H. vulgare* (4), *Lolium multiflorum* (1) and *Zea mays* (1). Viral isolates were propagated on oat (*Avena sativa*) or wheat (*T. aestivum* cv. Embrapa 16) using aphids (*Rhopalosiphum padi* or *Sitobion avenae*). After total RNA extraction from source plants, viral cDNA was synthesized by primers witch are specific to virus sequence. PCR amplified products were inserted into pGEM-T easy vector. The clones were sequenced using ABI 3700 DNA sequencer. Sequences identities were verified by a BLAST search of the GenBank nucleotide database. Nucleotide sequences were aligned, analyzed and compared with those of the other virus isolates from the family *Luteoviridae* using CLUSTAL W. From the 42 isolates, 3 from oat collected