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[1]杨永庆,侯文焕,边全荣,等.河北地区大豆花叶病毒株系的组成与分布[J].大豆科学,2014,33(01):87-90.
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摘要: 2012年对河北大豆产区13个县(区)市28个采样点采集的273份大豆花叶病毒(SMV)病样进行了生物纯化,最终共获得67个分离物。经ELISA和RT-PCR检测确认其中56个为SMV分离物。利用全国统一的SMV鉴别体系将这些分离物归为9个株系。与以往的研究结果相比,河北地区SMV株系组成和分布发生一定的变化,其中SC7和SC11仍为流行株系;SC8所占比例有所下降;未检测到SC12、SC13和SC15;发现SC1、SC3和SC18共3个新株系。今后应对SC3株系的发展动态予以密切关注。

Abstract: A total of 273 virus samples of SMV were collected from 28 locations distributed in 13 counties of Hebei province in 2012. The isolates were biologically purified from collected samples and detected by ELISA and RT-PCR. Then, SMV isolates were classified by the unified national identification system. Finally, 67 virus isolates were obtained and 56 virus isolates were identified to be SMV isolates by ELISA and RT-PCR. Base on the differential host responses to these isolates, these SMV isolates were classified into 9 strains. Compared with previous studies, composition and distribution of SMV strains in Hebei had showed some changes, however SC7 and SC11 were still popular strain; the percentage of SC8 strain decreased; SC12, SC13 and SC15 were undetected; three new strains SC1, SC3 and SC18 were first discovered in Hebei, and the development of SC3 strains should be given more attention.

参考文献/References:

- [1]Takahashi K, Tanaka T, Iida W, et al. Studies on virus disease and causal viruses of soybean in Japan[J]. Bulletin of the Tohoku National Agricultural Experiment Station, 1980, 62:103-130.
[2]Cho E K, Goodman R M. Strains of soybean mosaic virus: classification based on virulence in resistant soybean

cultivars[J]. Phytopathology, 1979, 69: 467-470.

[3] Cho E K, Choi S H, Cho W T. Newly recognized soybean mosaic virus mutants sources of resistance in soybeans [J]. Research Report, 1983, 25: 18-22.

[4] Buzzell R I, Tu J C. Inheritance of soybean resistance to soybean mosaic virus[J]. Journal of Heredity, 1984, 75: 82.

[5] Lim S M. Resistance to soybean mosaic virus in soybeans[J]. Phytopathology, 1985, 75: 199-201.

[6] Kim J S, Lee E J. A new virulent strain of soybean mosaic virus infecting SMV resistant soybean cultivar, Deogyou [J]. Korean Journal of Plant Pathology, 1991, 7: 37-41.

[7] Kim Y H, Kim O S, Lee B C, et al. G7H, a new soybean mosaic virus strain: its virulence and nucleotide sequence of 2C1 gene[J]. Plant Disease, 2003, 87: 1372-1375.

[8] 王修强, 盖钧镛, 濮祖芹, 黄淮和长江中下游地区大豆花叶病毒株系鉴定与分布[J]. 大豆科学, 2003, 22(2): 102-107. (Wang X Q, Gai J Y, Pu Z Q. Classification and distribution of strain groups of soybean mosaic virus in Middle and Lower Huang Huai and Changjiang Valleys[J]. Soybean Science, 2003, 22(2): 102-107.)

[9] 郭东全, 智海剑, 王延伟, 等. 黄淮中北部大豆花叶病毒株系的鉴定与分布[J]. 中国油料作物学报, 2005, 27(4): 64-68. (Guo D Q, Zhi H J, Wang Y W, et al. Identification and distribution of soybean mosaic virus strains in middle and northern Huang Huai Region of China[J]. Chinese Journal of Oil Crop Sciences, 2005, 27(4): 64-68.)

[10] 王延伟, 智海剑, 郭东全, 等. 中国北方春大豆区大豆花叶病毒株系的鉴定与分布[J]. 大豆科学, 2005, 24(4): 263-268. (Wang Y W, Zhi H J, Guo D Q, et al. Classification and distribution of strain groups of soybean mosaic virus in northern China spring planting soybean region[J]. Soybean Science, 2005, 24(4): 263-268.)

[11] 李凯. 中国南方大豆花叶病毒株系的鉴定、抗性遗传和抗性基因的定位[D]. 南京: 南京农业大学, 2009. (Li K. Strain identification of soybean mosaic virus, inheritance and gene mapping of its resistance in soybean [D]. Nanjing: Nanjing Agricultural University, 2009.)

[12] 战勇, 智海剑, 喻德跃, 等. 黄淮地区大豆花叶病毒株系的鉴定与分布[J]. 中国农业科学, 2006, 39(10): 2009-2015. (Zhan Y, Zhi H J, Yu D Y, et al. Identification and distribution of SMV strains in Huang-Huai Valleys[J]. Scientia Agricultura Sinica, 2006, 39(10): 2009-2015.)

相似文献/References:

[1] 李 凯, 刘志涛, 李海朝, 等. 国家大豆区域试验品种对SMV和SCN抗性分析[J]. (article.aspx?type=view&id=201305019) 大豆科学, 2013, 32(05): 670. [doi:10.11861/j.issn.1000-9841.2013.05.0670]

LI Kai, LIU Zhi-tao, LI Hai-chao, et al. Resistance to Soybean Mosaic Virus and Soybean Cyst Nematode of Soybean Cultivars from China National Soybean Uniform Trials[J]. Soybean Science, 2013, 32(05): 670. [doi:10.11861/j.issn.1000-9841.2013.05.0670]

[2] 高 乐, 宋英培, 李 凯, 等. 大豆花叶病毒HC-Pro基因保守序列克隆及其RNAi载体的构建[J]. (article.aspx?type=view&id=201306005) 大豆科学, 2013, 32(06): 744. [doi:10.11861/j.issn.1000-9841.2013.06.0744]

[3] 王大刚, 田 震, 李 凯, 等. 鲁豫皖大豆产区大豆花叶病毒株系的鉴定及动态变化分析[J]. (article.aspx?type=view&id=201306016) 大豆科学, 2013, 32(06): 806. [doi:10.11861/j.issn.1000-9841.2013.06.0806]

[4] 张雯娜, 李晋玉, 田金艳, 等. 逆转录环介导等温扩增技术快速检测大豆花叶病毒[J]. (article.aspx?type=view&id=201403023) 大豆科学, 2014, 33(03): 422. [doi:10.11861/j.issn.1000-9841.2014.03.0422]

ZHANG Wen-na, LI Jin-yu, TIAN Jin-yan, et al. Rapid Detection of Soybean Mosaic Virus by Reverse Transcription Loop Mediated Isothermal Amplification[J]. Soybean Science, 2014, 33(03): 422. [doi:10.11861/j.issn.1000-9841.2014.03.0422]

[5] 王大刚, 张 磊, 智海剑. 大豆花叶病毒株系鉴定与分子生物学研究进展[J]. (article.aspx?type=view&id=201204031) 大豆科学, 2012, 31(04): 668. [doi:10.3969/j.issn.1000-9841.2012.04.031]

WANG Da-gang, ZHANG Lei, ZHI Hai-jian. Advances in Identification of Strains and Molecular Biology of Soybean Mosaic Virus[J]. Soybean Science, 2012, 31(04): 668. [doi:10.3969/j.issn.1000-9841.2012.04.031]

[6] 王大刚, 卢为国, 马 莹, 等. 新育成大豆品种对SMV和SCN抗性评价[J]. (article.aspx?type=view&id=200906001) 大豆科学, 2009, 28(06): 949. [doi:10.11861/j.issn.1000-9841.2009.06.0949]

WANG Da-gang, LU Wei-guo, MA Ying, et al. Evaluation of Resistance of Soybean Cultivars to Soybean Mosaic Virus and Soybean Cyst Nematode[J]. Soybean Science, 2009, 28(06): 949. [doi:10.11861/j.issn.1000-9841.2009.06.0949]

[7] 李开盛, 曹越平. 野生大豆抗花叶病毒病生化机制的研究[J]. (article.aspx?type=view&id=201102017) 大豆科学, 2011, 30(02): 254. [doi:10.11861/j.issn.1000-9841.2011.02.0254]

LI Kai-sheng, CAO Yue-ping. Biochemical Mechanism of Resistance to SMV in Wild Soybean (Glycine soja.) [J]. Soybean Science, 2011, 30(02): 254. [doi:10.11861/j.issn.1000-9841.2011.02.0254]

[8] 杨清华, 盖钧镛. 大豆花叶病毒保存方法的比较研究[J]. (article.aspx?type=view&id=201202018) 大豆科学, 2010, 29(02): 260. [doi:10.11861/j.issn.1000-9841.2010.02.0260]

YANG Qing-hua, GAI Jun-yi. A Comparative Study on the Different Preservation Methods of Soybean Mosaic Virus [J]. Soybean Science, 2010, 29(02): 260. [doi:10.11861/j.issn.1000-9841.2010.02.0260]

[9] 刘宁, 刘若淼, 马莹, 等. 中国大豆花叶病毒HC-Pro基因的克隆与序列分析[J]. (article.aspx?type=view&id=201004001) 大豆科学, 2010, 29(04): 549. [doi:10.11861/j.issn.1000-9841.2010.04.0549]

LIU Ning, LIU Ruo-miao, MA Ying, et al. Cloning and Sequence Analysis of HC-Pro Gene of Soybean Mosaic Virus [J]. Soybean Science, 2010, 29(04): 549. [doi:10.11861/j.issn.1000-9841.2010.04.0549]

[10] 白丽, 李海朝, 马莹, 等. 大豆对大豆花叶病毒SC-11株系抗性的遗传及基因定位[J]. (article.aspx?type=view&id=200901001) 大豆科学, 2009, 28(01): 1. [doi:10.11861/j.issn.1000-9841.2009.01.0001]

BAI Li, LI Hai-chao, MA Ying, et al. Inheritance and Gene Mapping of Resistance to Soybean Mosaic Virus Strain SC-11 in Soybean[J]. Soybean Science, 2009, 28(01): 1. [doi:10.11861/j.issn.1000-9841.2009.01.0001]

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