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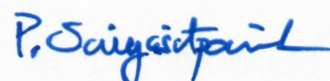
Template for submitting information on detection and identification of living modified organisms pursuant to paragraph 3 of decision CP-10/11

Part I. Endorsement of submission

Name of Country/Organization: Thailand

Name of Cartagena Protocol Focal point/Head of Organization endorsing: Office of Natural Resources and Environmental Policy and Planning

Signature of the Cartagena Protocol Focal Point/ Head of Organization:



Phirun Saiyasitpanich
Secretary-General

Date: 23 November 2023

Part II. Submission of information

In decision CP-10/11, the Conference of Parties serving as a meeting of the Parties to the Cartagena Protocol on Biosafety (COP-MOP) invited Parties and relevant organizations to submit information on their experience with new detection techniques, detecting newly developed and unauthorized living modified organisms and developing reference materials, as well as ongoing collaborations involving national and regional laboratories. At its twenty-sixth meeting, the Subsidiary Body on Scientific, Technical and Technological Advice to consider the information submitted and prepare a recommendation on the need to update Biosafety Technical Series 05: *Training Manual on the Detection and Identification of Living Modified Organisms in the Context of the Cartagena Protocol on Biosafety*.

1. Department of Agriculture

Based on this, please submit information on the following areas:

1. New techniques or tools for the detection and identification of living modified organisms
 - 1.1 **In-house method of Multiplex Real-time PCR for screening of GM crop (35S promoter, NOS terminator and HMG corn endogenous gene)**
 - 1.2 **In-house plasmid reference material for GM wheat MON71800**
2. Experience with:
 - a. New detection techniques : **The Laboratory of GM detection of Department of Agriculture has used the In-house method of Multiplex Real-time PCR for over 6,000 samples/year since 2018. The scope of detection under ISO17025 standard are 35S promoter, NOS terminator and plant endogenous genes in matrix of Maize, Soybean, Rice, Papaya and Others plants.**
 - b. Detecting newly developed and/or unauthorized living modified organisms -
 - c. Developing reference materials: **Because of lack of GM wheat MON71800 reference material in commercial market, The Laboratory of GM detection of Department of Agriculture developed In-house plasmid reference material for GM wheat MON71800 which contain 35S promoter, NOS terminator, MON71800 event specific element and ACC-1 gene for using as positive control.**
3. Collaborations or agreements between national and/or regional laboratories
ASEAN GMF testing network <http://org.doa.go.th/aseangmf/>

Submission of supporting documentation:

For any publication that you may want to share as part of your submission, kindly include:

1. Name of publication(s), author, date and DOI or URL link.
 - 1.1 Development Triplex Real-Time PCR Screening Method to Detect GM Maize for ISO/IEC17025 Standard Accreditation (2018) Thammakijjawat P., Sornchai P., Assawamongkholsiri T. and Sanvittayakul P. Thai Agricultural Research Journal (36) vol 3. 316-331. <https://at.doa.go.th/journal/detail2.php?Tp=login#>
 - 1.2 Development of the In-House Genetically Modified Wheat MON71800 Reference Plasmid for Qualitative Detection by Tetraplex Real-Time PCR. (2021) Pitaksaringkarn W., Assawamongkholsiri T., Sornchai P. and Thammakijjawat P. Doi: 10.14458/RSU.res.2021.132 <https://rsucon.rsu.ac.th/proceedings?type=all&search=MON71800>
2. Attach in pdf format any publication you have listed above.

<https://at.doa.go.th/journal/downloadfile.php>

https://rsucon.rsu.ac.th/files/proceedings/intersci2021/1819_20210514165628.pdf

2. Central Laboratory (Thailand) Co.,Ltd. (Bangkok Branch)

Based on this, please submit information on the following areas:

1. New techniques or tools for the detection and identification of living modified organisms : [Technique Real-Time PCR](#)
2. Experience with:
 - a. New detection techniques : [Technique Real-Time PCR](#)
 - b. Detecting newly developed and/or unauthorized living modified organisms : [Technique Real-Time PCR](#)
 - c. Developing reference materials : -
3. Collaborations or agreements between national and/or regional laboratories : [Proficiency Testing with FAPAS, England](#)

Submission of supporting documentation:

For any publication that you may want to share as part of your submission, kindly include:

1. Name of publication(s), author, date and DOI or URL link. : -
2. Attach in pdf format any publication you have listed above. : -