



The IPPC Secretariat's Offices

Electronic certification, history and developments

Updated 2012-09-10

2006-01

The development of electronic phytosanitary certification has been subject of discussion for many years. The first International Plant Protection Convention (IPPC) meeting on this subject was held in Wageningen, the Netherlands in January 2006. During this meeting the possibilities and developments needed were discussed.

2008-02

An expert working group (EWG) met in February 2008 to revise ISPM 7:1997 (*Export certification system*) and ISPM 12:2001 (*Guidelines for phytosanitary certificates*). During the revision, it was recognized specific guidance would be needed to deal with electronic certificates and a blank Appendix 1 (Electronic certification, information on standard XML schemes and exchange mechanisms) was included in the ISPM 12:2011 (*Phytosanitary certificates*). The report of this meeting can be found on the IPP:

[https://www.ippc.int/index.php?id=1110798&frompage=179725&tx_publication_pi1\[showUid\]=211902&type=publication&L=0](https://www.ippc.int/index.php?id=1110798&frompage=179725&tx_publication_pi1[showUid]=211902&type=publication&L=0)

2009-05

The North American Plant Protection Organization (NAPPO) hosted an IPPC workshop on electronic certification in Ottawa in May 2009. During this meeting electronic phytosanitary certification was defined and progress in countries over the world was reviewed. The report of this meeting can be found on the NAPPO website:

http://www.napppo.org/en/data/files/download/Workshops%20docs/Electronic_Phytosanitary_Certification_Workshop_Report%20Ottawa%202009-e.pdf

2010-03

CPM-5 (2010) acknowledged the importance of the developments of electronic certification.

2010-08

The TC suggested that the IPPC Secretariat establish an Open-ended EWG (OEWG) on E-certification with the following tasks and purpose:

- establish elements and requirements for security and authenticity (e.g. regarding electronic equivalent of stamp and signature and protection against unauthorized changes and unauthorized viewing of the data).
- advice and recommendations on policy issues (e.g. choice of coding systems).
- explore which entries should be standardized e.g. names/codes for plants and pests, codes for units, codes for intended uses.

- agree that XML should be standard
- The mode of transmission of electronic certificates (push or pull, bilaterally or with central pool).
- Identify, and give advice on, practical problems during transition (e.g. concerning transit and re-export).

TC agreed to follow further progress closely in respect of developments in the E-certification area.

2011-06

In June 2011, the IPPC Open-Ended Working Group (OEWG) on Electronic Phytosanitary Certification was hosted by the Republic of Korea. In preparation for this meeting a steering committee gradually emerged consisting of representatives from IPPC, The Netherlands NPPO, New Zealand NPPO, Korea NPPO) and NAPPO. During this OEWG the elements that may need IPPC harmonisation were identified and the term ePhyto was introduced as a subset of electronic certification which is more specific to the IPPC electronic phytosanitary certification.

The report from this meeting can be found at the following link:

<https://www.ippc.int/index.php?id=1111140>

The following working groups were formed to address specific issues, the working groups are as follows:

ePhyto Working Group 1 on the XML schema, with the following tasks

1. Use of UNCEFACT SPS XML Schema to develop an ePhyto XML data map (subset of full UNCEFACT SPS Schema)
2. What are the mandatory/optional data elements for ISPM 12?
 - a. Determine mandatory and optional elements
 - b. Status of issuance (issued/transmitted then withdrawn with no replacement, pending, cancelled, common terminology)
 - c. How do we handle optional data elements with no data (blank)?
 - d. How do we handle re-export phytosanitary certificates?

The work of this WG was coordinated by Martin Boerma, with the following members of this WG:

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|---|--------------------------------|
| • Barbara Cooper (AU) | • Pascual Miranda Nogales (BO) |
| • Craig Southwick (US) | • Peter Johnston (NZ) |
| • Katrin Kaminski (DE) | • Seiki Jun (KR) |
| • Marco Antonio Bittencourt Sucupira (BR) | • Sheryn Kirkpatrick (CA) |
| • Mario Navarro (CL) | • Walter Alessandrini (CA) |
| • Michal Slanina (CZ) | • Xu Jie (CN) |
| • Nathalie Bruneau (CA) | • Ana Maria Orbeta (CL) |

This WG confirmed that the UN/CEFACT XML schema is ISPM12 proof, i.e. that all the essential elements of the phytosanitary certificate according to ISPM 12 are present or can be placed within the UN/CEFACT schema. The exact use of the fields within the

UN/CEFACT schema was not concluded yet. An XML schema for a phytosanitary certificate for export and for re-export was developed. Also a procedure for re-export in the case of a combination of paper and electronic certificates was developed. Elements that still need further discussion are:

- a. Data mapping: some elements of the XML schema need further discussion, e.g. treatments, additional required numbers like the number of the import permit.
- b. How to deal with mixed consignments, e.g. a consignment containing roses and chrysanthemum cut flowers and how to deal with mixed products, e.g. bouquets that consist of roses and gypsophila cut flowers

Data mapping of elements that are specific for a re-export certificate and for a replacement certificate.

ePhyto Working Group 2 on codes for the contents of an electronic certificate, with the following tasks:

1. Description of consignments

- a. including weight, volume
- b. terminology
- c. category and sub-class
- d. additional descriptions (height etc)
- e. common name
- f. variety (outside of ISPM 12)
- g. regulated articles
- h. other import data

2. Standardized lists

- a. country lists -ISO codes (with some exceptions that would need standardization? IPPC list?)
- b. botanical list (where does it reside? who updates it? There should be updates and they need to be accessible)
- c. treatments including chemical types
- d. pest lists
- e. additional declarations (not absolutely required for ePhyto to work, but will greatly facilitate the process)

This WG was coordinated by Nico Horn with the following subdivision of the work and members of this WG:

Sub-group A: Botanical names (capture common names against) and pest names

- Nico Horn (facilitator)
- Fitzroy White (JM)
- Salah Yousseff (EG)
- Josiah Syanda (KE)
- jsyanda@kephis.org
- David Nowell (IPPC)
- J.A.Oluitan (NI)
- J.P. Singh (IN)
- Chortip Saiyapongse (TH)
- Paola Cabrera (CL)
- Sheryn Kirkpatrick (CA)
- Daniela Buzunarir
- Ms Cheon-Sun Lee (ZK)
- Adriana Utges (AR)
- Carmen Berni

- Olusola Wintola (NI)
- Paola Cabrera Hickmann (CL)
- Takahara Shinichi (JP)
- Mario de los Santos (UY)

Sub-group B: Treatments

- Salah Yousseff (facilitator) (EG)
- Bev Beacham (AU)
- Vardit Seeman (IL)
- Chortip Saiyapongse (TH)
- Elvin A. Carandang

Sub-group C: Additional declarations

- Bev Beacham (facilitator) (AU)
- Luis Leonel Espinoza Lopez (MX)
- Nico Horn (NL)
- Fitzroy White (JM)
- Vardit Seeman (IL)
- Roman Vagner (EC)
- Silke Steinmüller (DE)
- Dennis Alex (FR)

Sub-group D: product description: categories and subclass

- Bev Beacham (facilitator) (AU)
- J.P. Singh (IN)
- Paola Cabrera Hickmann (CL)
- Olusola Wintola (NI)
- Takahara Shinichi (JP)
- Sheryn Kirkpatrick (CA)
- Heiko Schmalstieg (DE)
- Vardit Seeman (IL)

ePhyto Working Group 3 on the transfer of electronic certificates, with the following tasks:

1. Methods for transfer, security measures, validation

This ePhyto WG was coordinated by Michael Perry with the following members:

- Lex Moret (NL)
- Per Bratterud (NO)
- Guy Watt (UK)
- Luis Espinoza (MX)
- Nathalie Bruneau (CA)
- Roberto Bertanzos (MX)
- Julie Weymouth (AU)

This WG concluded that a minimum level of security needed is the use of secured websites with login and pass words. Further elements of security are still under discussion. Whether harmonized communication elements are needed in the transfer process is still under discussion. The elements that still need further discussion are:

- a. Way to secure the authenticity and contents of a certificate, is the use of https combined with a login password sufficient or is also digital evidence needed? (recommended or agreed worldwide to use).
- b. Standard messages during the transmission process (perhaps this can be done by e-mail)
- c. Digital evidence as part of the XML message or as part of the transmission procedure (perhaps this can be done by e-mail)

The ePhyto Steering Committee would continue to function to ensure the activities move

forward and provide advice or guidance as necessary.

Members of the ePhyto Steering Committee are:

- Mr. David Nowell (IPPC Secretariat)
- Mrs. Rebecca Lee (NAPPO)
- Mr. Peter Johnston (New Zealand)
- Mr. Nico Horn (the Netherlands)

Reports of these working groups and sub groups can be found on the IPP:

<https://www.ippc.int/index.php?id=1111140>

2012-03

CPM-7 (2012) were updated by the Secretariat on electronic phytosanitary certification and informed that an IPPC ePhyto work programme (as show above) was established during the ePhyto meeting held in Korea.

The CPM agreed that the IPPC ePhyto programme was of high importance and the Appendix to ISPM 12 was needed by countries as soon as possible. It also agreed that the ePhyto Steering Committee would manage this work to ensure the Secretariat had adequate support and the programme could move forward quickly and the Secretariat to provide appropriate support to the ePhyto programme. In addition, the Secretariat was requested to notify members of the ePhyto activities and that it has the full support of CPM.

2012-04

The ePhyto steering committee compiled all results available from the working groups and drafted an Appendix for ISPM12:2011 on the elements of ePhyto. The Appendix is focused on the explanation of the elements and codes not containing the technical elements itself. These technical elements or reference to databases or websites are made available on the ePhyto.ippc.int web page. This draft Appendix was submitted to the Standards Committee in April 2012. Report of the meeting can be found at the following link [2012-04 Report of the Standards Committee](#). The revision of the draft Appendix was submitted for member consolation on 1 July 2012 with comments due 20 October 2012:

<https://www.ippc.int/index.php?id=207803>

To finalize the work of WG 1 and WG 3, the ePhyto Steering Committee organised a IPPC EWG with experts from these two WGs supplemented with additional experts from other countries in Paris in September 2012.

Participants for EWG, Paris, France, September 2012

- ePhyto Steering Committee members:
 - Mr. David Nowell (IPPC Secretariat)
 - Ms. Rebecca Lee (NAPPO)
 - Mr. Peter Johnston (New Zealand)
 - Mr. Nico Horn (the Netherlands)
- Martin Boerma (coordinator WG1)
- Michael Perry (coordinator WG3)

- Invited experts:
 - Barbara Cooper (Australia)
 - Sheryn Kirkpatrick (Canada)
 - Maoyu Chen and/or Mei Pei (China)
 - Domingo Frez and/or Ana Maria Orbeta (Chile)
 - Katrin Kaminski (Germany)
 - Lex Moret (Netherlands)
 - Liesle Venter-Wagner (New Zealand)
 - Seiki Jun (Republic of Korea)