Electronic certification, information on standard XML schemas and exchange mechanisms (Draft Appendix 1 to ISPM 12:2011) (2006-003)

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Introduction

Electronic phytosanitary certificates are the electronic equivalents of the wording and data of phytosanitary certificates in paper form. Electronic certificates should be issued by the national plant protection organization (NPPO) of the exporting or re-exporting country and made directly available to the NPPO of the importing country without any intermediate step.

If using electronic phytosanitary certificates, NPPOs should develop and use systems that generate certificates using standardized language, message contents and exchange protocols. This appendix provides guidance on these elements and refers to an ePhyto homepage (<http://ePhyto.ippc.int>), which is located on the IPPC website. The ePhyto homepage provides further details and links to information indicated in this appendix by "*Link 1*" etc.

All the requirements and procedures laid down in this standard apply to electronic certification unless more specific provisions are provided in this appendix.

1. XML message and XML schema

NPPOs should use the World Wide Web Consortium (WC3) Extensible Markup Language (XML) (*Link 1*) as the standardized language for exchange of electronic certificate data between NPPOs; the data should be standardized in the format of the United Nations Centre for Trade Facilitation and Electronic Business (UN/CEFACT) Sanitary and Phytosanitary (SPS) XML schema (*Link 2*), as adjusted and further specified for phytosanitary electronic certification on the ePhyto homepage. This pertains to the IPPC ePhyto certificate for export (*Link 3*) and to the IPPC ePhyto certificate for re-export (*Link 4*).

2. Electronic contents of the XML schema: harmonization by coding

To standardize the XML message and to allow for automatic electronic processing of data, elements of the phytosanitary certificates should be coded as follows.

2.1 Country names

The names of countries referred to in the certificate (i.e. the country of origin, of export, of re-export and of destination and transit) should be coded using the International Organization for Standardization (ISO) two-digit country codes (*Link 5*).

2.2 Scientific names

The names of the certified plants and plant products and the names of regulated pests should be coded using the European and Mediterranean Plant Protection Organization (EPPO) codes as available in EPPO Plant Protection Thesaurus (EPPT) (*Link 6*).

2.3 Description of consignment

Commodity classes and type of packaging are included in the description of the consignment. The commodity class is essential to further characterize plants and plant products beyond the level of the scientific name and should be coded using the IPPC commodity class codes (*Link 7*). The type of packaging should be coded using the United Nations Economic Commission for Europe (UNECE) recommendation 21 (which includes codes for packages and packaging materials) (*Link 8*). Other elements of the description of the consignment may include weight, volume and height, and should be coded using UNECE recommendation 20 (codes for units of measure used in international trade) (*Link 9*). There should also be the possibility to use free text for any description of the consignment. However, to facilitate electronic processing of data, the use of free text should be limited.

*[For 2012 member consultation, please indicate any commodity class you consider missing from Link 7.]*

2.4 Treatments

Any treatment types that need to be specified should be coded using the IPPC treatment type codes (*Link 10*). Active ingredients should be coded using the coding system of Codex Alimentarius (*Link 11*). Other parameters (i.e. concentration, dosage, temperature and duration of exposure) should be coded using UNECE recommendation 20 (*Link 12*).

*[For 2012 member consultation, please indicate any treatment types you consider missing from Link 10.]*

2.5 Additional declarations

Standardized wording for additional declarations are recommended in Appendix 2 and these should be coded using IPPC additional declaration codes (*Link 13*). There should also be the possibility to insert free text, either to supplement the coded additional declaration as indicated on the ePhyto homepage, or to allow for additional declarations that are not yet coded or standardized.

2.6 Further elements

The date and time format should be coded following UNECE recommendation 7 (numerical representation of dates, time and periods of time) (*Link 14*).

Point of entry and point of destination should be coded using the United Nations Code for Trade and Transportation Locations (UN/LOCODE) code (*Link 15).*

2.7 Name of authorized officer

The name of the officer issuing the phytosanitary certificates should be automatically inserted on the certificate by the system.

3. Exchange mechanisms

To ensure that the electronic exchange of data is secure and authentic, the certificate data should be encrypted. Countries are encouraged to use the encryption system recommended by UN/CEFACT (*Link 16*), which is widely available and considered sufficiently secure.

The method of transmission over the Internet should be through secured login with user name and password from the NPPO of the exporting country to the NPPO of the importing country. The NPPO of the exporting country should inform the exporter of the actual certificate number covering the consignment concerned.

4. Re-export

The phytosanitary certificate for re-export should have the original phytosanitary certificate for export as an attachment. In the situation where paper and electronic certificates are both in use, provisions are needed to fulfil this requirement when a phytosanitary certificate for re-export is issued in the following situations.

4.1 Re-export in a full electronic system

In the situation where both the phytosanitary certificate for export and for re-export are electronic certificates, the electronic phytosanitary certificate for export can be attached to the electronic phytosanitary certificate for re-export.

4.2 Re-export with electronic certificate while export with paper certificate

In cases where the original phytosanitary certificate for export is a paper certificate and the phytosanitary certificate for re-export is an electronic certificate, a scan of the original phytosanitary certificate for export (preferably in PDF format) can be incorporated into the electronic phytosanitary certificate for re-export.

4.3 Re-export with paper certificate while export with electronic certificate

In cases where the original phytosanitary certificate for export is an electronic document and the phytosanitary certificate for re-export is a paper document, the phytosanitary certificate for export can be printed in a certificate format and validated by the NPPO of the country of re-export by stamping, dating and countersigning. The printed version of the electronic phytosanitary certificate of export becomes a certified copy and can then, in paper form, be attached to the paper phytosanitary certificate for re-export.

5. Replacement of phytosanitary certificates

In cases where phytosanitary certificates need to be replaced, the IPPC replacement of phytosanitary certificates code should be used (*Link 17*).

6. Details for filling out electronic certificates

Owing to the nature of electronic certificates and to the fact that electronic certificates are exchanged directly between NPPOs, some details for filling out electronic certificates differ from those for filling out paper certificates.

Declared name and address of consignee

In the case of paper certificates, the term “To order” may be used in particular instances where the consignee is not known and the NPPO of the importing country permits the use of this term (“Declared name and address of consignee” in section 5 of this standard under “I Description of Consignment”). In the case of electronic certificates, instead of “To order”, the name and address of the contact person responsible for the consignment should be inserted in sufficient detail. This enables the NPPO of the importing country to contact the consignee (or its representative) if necessary.