Report of the 2nd meeting of the Technical Panel on Diagnostic Protocols, Penang, Malaysia, 5-9 December 2005

Participants:	
Asna Booty Othman	Malaysia (Host)
Jane Chard	IPPC Secretariat (Chair)
Gerard Clover	New Zealand
Brent Larson	IPPC Secretariat
Lum Keng-Yeang	Malaysia
Ana Lía Terra	Uruguay
Jens-Georg Unger	Germany (Steward)
Daphne Wright	UK
Seed session:	
Valerie Cockerell	ISTA (UK)
Michael Muschick	ISTA (Switzerland)
Radha Ranganathan	ISF (Switzerland)

1. Introduction

The technical panel was welcomed to Malaysia by Asna Booty Othman, Director of the Regional Centre for the Management of Pest Fruit Flies, who was the host of the meeting. B Larson (IPPC Secretariat) briefed the panel on their roles and responsibilities, including the steward's role to liaise with the Standards Committee (SC) and the panel members roles in ensuring diagnostic protocols (DPs) contain methods that are appropriate and likely to be acceptable world-wide. J Chard was elected as chair.

2. Draft ISPM on diagnostic protocols

J Unger (steward) updated the panel on the progress of the draft ISPM, which they had drafted at their first meeting, and which was based on a draft from an email expert working group chaired by A Booty Othman. The draft ISPM had been sent for country consultation in 2005 and most comments had been supportive. The SC made adjustments to the text and recommended it for adoption by the Commission on Phytosanitary Measures (CPM) in April 2006.

During country consultation there had been a request for methods to be validated before inclusion, but the final text in the draft standard reflects the view that inter-laboratory validation of methods should be assessed on a case by case basis. The draft text states:

"It may be necessary that some methods are validated before inclusion in the protocols. Such validation may include, for example, the use of a proficiency panel to analyze known samples to verify sensitivity, specificity and reproducibility." (Draft ISPM on DPs, second paragraph, section 1)

J Unger reminded the panel that the draft ISPM also states that: "*Diagnostic protocols provide the minimum requirements for reliable diagnosis of regulated pests.*" They therefore should not be considered as a "gold standard" covering all possible methods for pest diagnosis.

3. Progress with commissioning and drafting DPs

3.1 Overview

At its first meeting, the TPDP had recommended nineteen pests for production of DPs. Following a call for nomination of experts, the panel had selected authors and an editorial team for each DP. The authors and editors were commissioned to draft DPs in May-June

2005. As there was no discipline lead on the panel for mycology, no fungal DPs were commissioned in 2005.

The discipline leads updated the TPDP on the progress with each DP. There had been an inconsistent response from authors for some DPs. However, in most cases experts had started work on the DPs. One draft had been submitted as a completed DP and ten additional drafts in different stages of preparation were submitted to the TPDP. As these were the first draft DPs, it was felt that reviewing them at the meeting would provide the TPDP with valuable information for the future development of DPs. The drafts were therefore considered at the meeting and the panel congratulated the authors and editorial teams for the progress they had made in a relatively short time scale.

In some cases the drafts had been based on regional protocols and the panel were concerned that authors should check that methods are appropriate for wider use. In some cases additional representation on the editorial team might be helpful. For some protocols the authors had consulted with scientists from the wider scientific community. The TPDP supported this approach as it should aid consensus building and should help ensure acceptance of the protocols. The TPDP recommended that authors should provide information on the extent to which the protocol had been considered by the wider scientific community when each protocol is sent to the panel for review.

In the case of the protocol on phytoplasmas, there had been a problem with securing a lead author, so the panel requested the Secretariat to make a new call for nominations for authors for this protocol in early 2006.

3.2 Detailed review of three draft DPs

The panel considered three draft protocols in detail (*Trogoderma granarium*, Tospoviruses and *Xanthomonas fragariae*) and compared them with the requirements in the draft ISPM. The three drafts were very comprehensive covering the main methods used for diagnosis of these pests.

The panel noted that methods in DPs could be used to identify pests in consignments and also in samples from field inspection. Information should therefore be provided on detection under different circumstances. Specific inspection instructions (for inspectors), however, should not be included as these should be incorporated in some type of inspectors manual. Similarly, specific details relating to sampling, such as sampling rates, should not be included as these will be determined by NPPOs on the basis of pest risk.

The panel noted that in some cases it was not clear whether a method should be included in the section on detection or identification. Where a method could be used for both, it was recommended that it should be included in the detection section and then referred to in the following identification section. Any relevant comments on the use of the method for detection/identification should be included in the relevant section.

The panel agreed to a number of points relating to the content and format of DPs protocols, including:

- Adding an index at the start of the protocol to help the reader navigate the protocol.
- Protocols should follow the layout in the draft ISPM, and should be numbered accordingly, even in the draft stage for easy reference. The detection and identification sections should have subheadings as necessary to aid clarity.
- The pest information section should be brief and should not normally exceed one page.
- Protocols should not be written in the form of standard operating procedures (SOPs); NPPOs should be able to transfer the details of methods into SOPs.

- It is not necessary to include methods for commercial kits as these methods should be followed in accordance with manufacturer's instructions.
- Appendices or annexes should not be included (protocols will be annexes to the main standard and annexes to annexes are not appropriate)
- Information on sensitivity, specificity and repeatability should be included.
- Only methods that are reliable and currently available should be included.
- Validated methods should be included where possible and referenced.
- References should be kept to the minimum necessary for diagnosis.
- Flow charts (if included) should give guidance on suitability of methods for detection and identification, but should not be drafted as decision making schemes (such decisions should be made by NPPOs on the basis of information in the protocol).

The TPDP acknowledged the work done by R. Baayen in drafting the instructions to authors, which were sent out to authors when protocols were commissioned. The panel recognised that the instructions needed to be updated in the light of their discussion and to take into account changes in the draft ISPM. G. Clover agreed to redraft the instructions to authors and circulate them to the rest of the panel (Annex 1). The discipline leads will contact the authors of protocols and make suggestions for redrafting their protocols for consistency with the required format.

4. Procedural issues

J Unger and B Larson informed the panel that the four stewards of the technical panels were working on a paper on "horizontal workings of the technical panels" to ensure consistency of operation.

4.1 Changes to membership of DP drafting teams

During the commissioning process, the TPDP had experienced problems with nominated experts becoming unable to participate in protocol production due to a number of factors. The panel considered that they needed flexibility to adjust the membership of the editorial teams.

For current protocols, where an expert is unable to act as lead author, the TPDP recommended that the discipline lead should ask someone from the editorial team to be lead. The TPDP would be informed of the change of authorship. Where additional experts are required, the discipline lead should choose from the experts the IPPC Secretariat received during the nomination process, if no suitable experts are available, the IPPC Secretariat should seek nominations for the protocol by announcing the vacancy on the IPP, with a 30 day deadline for receipt of CVs. The discipline lead would recommend an expert and TPDP would review and approve the addition.

For commissioning new protocols, the TPDP proposed that once topics for protocols were put on the work programme at the CPM the Secretariat would request contracting parties to submit CVs of experts for DPs. The TPDP also proposed that the discipline lead or experts should be invited to nominate additional experts by submitting CVs directly to the Secretariat. Experts should attempt to ensure their NPPO supports their nomination.

4.2 Fast track procedure for DPs

The TPDP proposed that DPs are not considered for the fast track process at this stage. Because the production of DPs is a new concept for the CPM, it is important for countries to become familiar with the format and content of DPs before moving to a fast track process. Once the first DPs have been adopted, it may be appropriate to consider subsequent DPs under the fast track process.

4.3 Procedure for reviewing country comments

The TPDP briefly discussed the procedures to be used for reviewing country comments on DPs. They considered that many comments would be of a technical nature and should be considered by the TPDP discipline lead and also the authors. However, as there will be no DPs for country consultation in 2006, the panel decided to consider the issue in detail at their next meeting.

5. Priorities for new DPs

The panel reviewed a list of regulated pests they had produced at the first meeting and considered priorities proposed by other technical panels. The TPDP proposed nine additional organisms to be added to the list of pests for DP production and will submit these to the SC in May 2006 (Annex 2).

6. Criteria for new members of the panel

The panel agreed to wording regarding the criteria required for additional members of the TPDP, namely the discipline leads for mycology, quality assurance (and entomology/acarology) and botany (weeds/invasive alien species) (Annex 3). The Secretariat will issue a call to NPPOs and RPPOs for these positions early in 2006.

7. Validation of methods for inclusion in DPs

The draft ISPM on DPs indicates that in some cases it will be necessary to validate a method before inclusion in a protocol, but this would be determined on a case by case basis (see section 2 of this report). The TPDP agreed to discuss the issue at their next meeting and to consider whether guidance on validation of methods or criteria for inter-laboratory validation should be provided.

8. Seed health testing session

8.1 Requests from ISTA and ISF

During 2005, the International Seed Federation (ISF) and the International Seed Testing Association (ISTA) had made requests to the IPPC Secretariat to work with the TPDP in production of DPs for pests associated with seeds. The IPPC Secretariat therefore invited representatives from both organisations to a one day session to make presentations on their proposals and to discuss IPPC procedures.

J Unger and B Larson described the IPPC procedures for identifying topics and priorities for standards and the standard setting process including the review by the SC, country consultation and adoption of standards by the CPM. The TPDP explained that the IPPC was committed to working with other international organizations.

ISTA representatives introduced their organization and its operation. ISTA was set up as a Governmental Organization in 1924 and its membership includes seed testing laboratories, personal members and technical committee members. ISTA's main purpose is to develop, adopt and publish standard procedures for sampling and testing seeds and to promote uniform application of these procedures for evaluation of seed moving in international trade. Voting rights reside solely with Governments and seed testing methods are included in the ISTA International Rules after a positive (majority) vote in the ISTA Ordinary meeting. Each government appoints one individual per country to hold voting privileges on behalf of their country.

Nineteen official seed health testing methods are approved by ISTA with two under review. ISTA operates a quality assurance accreditation scheme for seed testing laboratories and methods are published in the form of SOPs. Methods are proposed by an author, who initially submits the method along with a validation report (results of inter-laboratory testing) for consideration by the ISTA seed health committee. Once a method is accepted by the committee it is adopted as an official method at the ISTA Ordinary meeting. ISTA methods are published on the ISTA web site (www.seedtest.org) ISTA has a proficiency testing programme for accredited laboratories, which will include seed health testing from 2006.

ISTA requested:

- the IPPC considers using the ISTA validation system for DPs for pests associated with seeds
- IPPC recognizes existing ISTA methods
- ISTA and IPPC co-operate to produce new DPs
- the CPM encourages NPPOs to recognize some seed health testing results undertaken by ISTA accredited laboratories as being appropriate for phytosanitary purposes.

The ISF representative explained the organization and ISF's International Seed Health Initiative (ISHI). The ISF has members in 69 countries and its aim is to facilitate the marketing of planting seeds by publishing international trade and arbitration rules; to represent the interests of its members; and to develop and facilitate the free movement of seed within the regulatory framework.

ISF also produce DPs for pest associated with seed, which are either based on methods published in peer-reviewed journals or developed by members of ISHI. Methods developed by ISHI are validated through inter-laboratory testing and must be accepted by unanimity by the seed pathology group of ISF. ISF methods are available on the ISF web site (http://www.worldseed.org/phytosanitary.htm).

ISF requested:

- to be able to submit DPs directly to the TPDP for approval under the IPPC procedure
- to work together to develop new DPs for pests associated with seeds.

8.2 Weed specialists

Because of the need for a "botanist" on the TPDP, the panel asked ISTA about experience with DPs for weed seeds. ISTA does not have DPs for weed seeds, but several books had been written by ISTA purity experts and the organization is currently working on a book on identification of weeds for ISTA laboratories.

8.3 LMOs

ISTA set up a GM task force approximately five years ago and have an accreditation system for identification and quantification of GM seeds in conventional seed. The accreditation system will commence in February 2006 and will involve testing for adventitious GM seed in conventional lots. ISTA aims to develop performance tests for purity of seed lots for adventitious GM seeds.

8.4 Conclusions

All parties considered the meeting had been a useful forum for exchange of information and all had a clearer view of the different systems operated by the different organizations.

The panel noted that ISTA and ISF deal with pests associated with seeds for planting, whereas the IPPC deals with pests associated with plants, plant products and other objects.

The TPDP also noted that the IPPC process of considering topics and priorities for standards differed from those of ISTA and ISF. The panel considered that the normal priority setting process should continue to apply to the selection of topics for DPs.

Regarding the use of the ISTA validation method, the TPDP considered that where a seed-related method requires validation, IPPC and ISTA should cooperate to ensure the validation meets the requirements of both organizations. Where appropriate, the ISTA validation method can be used and effort should be made to ensure there is no conflict in the methods. Where method validation has already been done by ISTA or ISF, the TPDP should consider this data when preparing DPs.

The TPDP supported further cooperation in the development of DPs and considered that efforts should be made to include relevant experts from ISTA/ISF in the future development of DPs on pests associated with seeds. The panel also considered that, as with DPs adopted by RPPOs, where relevant ISTA and ISF methods exist these should be used as starting points for the development of future DPs.

9. Work programme

The panel agreed a programme of work for 2006, which included working with authors and editorial teams to ensure several DPs would be ready for consideration by the SC in 2007 (Annex 4).

10. Recommendations for SC

The TPDP recommended that the SC:

- *approve* further priorities for pests for DPs
- *agree* not to recommend the first DPs for the fast track process
- *note* other proposed TPDP procedures
- *note* the criteria for new members of the TPDP

and from the seed health session:

- *agree* to cooperate with ISTA and ISF in the development of DPs
- *agree* to include relevant experts in the future development of DPs
- *agree* that existing ISTA and ISF methods should be used as starting points of future DPs where appropriate
- *note* the request from ISTA for NPPOs to recognize results obtained in ISTA laboratories for phytosanitary purposes.

Diagnostic protocols for pests – Instructions to authors

1 General considerations

Diagnostic protocols are published as annexes to the draft ISPM[1]. They describe procedures and methods for the detection and identification of pests that are regulated by Contracting Parties of the IPPC and relevant for international trade. They are addressed to diagnosticians/diagnostic laboratories performing official tests as part of phytosanitary measures. The diagnostic protocols provide guidance on the diagnosis of specified pests. Information is provided on the specified pest, its taxonomic status and the methods to detect and identify it. The protocols contain the minimum requirements for reliable diagnosis of the specified pest and provide flexibility to ensure the methods are appropriate for a range of circumstances of use.

Diagnostic protocols may cover a species, an infra-specific taxon, several species within a genus, or an entire genus, for example where several species within a genus are regulated pests.

Authors should draft diagnostic protocols in accordance with the requirements given in the main text of the ISPM.

Diagnostic protocols are drafted by an expert working group co-ordinated by a technical lead. The expert working group, including the technical lead, is selected by the Technical Panel on Diagnostic Protocols. Authors are encouraged to have draft protocols peer-reviewed by the wider scientific community, prior to submission for acceptance by the Technical Panel on Diagnostic Protocols.

2 Definitions

Pest diagnosis is defined as follows:

- *Pest Diagnosis* – the process of detection and identification of a pest.

Methods for detection may be interpreted differently depending on the type of pest being considered. For example, detection of an insect may relate to observation of individuals or signs of damage in consignments, whereas detection methods for bacteria may involve culturing extracts of suspected plant material on differential or semi-selective medium.

3 Methodology

Each protocol should contain the methods and guidance necessary for the named pest(s) to be detected and positively identified by an expert (i.e. an entomologist, mycologist, virologist, etc.). Authors should select methods on the basis of their sensitivity, specificity and reproducibility, also taking into account the availability of equipment, the expertise required for these methods and their practicality (for example, ease of use, speed and cost).

Protocols should as a rule describe more than one method to take into account the varying capabilities of laboratories and the situations for which the methods are applied. Such situations include diagnosis of different developmental stages of organisms, which require different methodologies, as well as the degree of certainty required by the NPPO. For some purposes a single method may be sufficient, for others a combination of methods may be necessary. This applies both to the minimum requirements for a diagnosis and where additional requirements are necessary (such as where a high degree of certainty in the

[1]The draft standard "Diagnostic Protocols for Regulated Pests" will be considered by the Commission on Phytosanitary Measures in April 2006.

diagnosis is required). In cases where morphological methods can be reliably used but appropriate molecular methods have been developed, the latter should be presented as alternative or supplementary methods.

All methods should be described separately in a consistent manner with sufficient detail (including equipment, reagents and consumables) to be able to perform the test without further reference to the literature. However, if the method is based on a commercial kit it is not necessary to repeat the manufacturer's instructions. Protocols should not be written in the form of standard operating procedures but should provide sufficient detail to allow NPPOs to develop such procedures. Where appropriate, reference may be made to methodology described in other diagnostic protocols annexed to the draft ISPM.

For all methods, information on their sensitivity, specificity and reproducibility, and specifications from multi-laboratory validation trials (when available) should be included.

Guidance on positive and negative controls and reference material should be included in each of the tests. Cases where the inclusion of appropriate controls, including reference material, is essential (e.g. ELISA) should be indicated. Sources and specifications (technical, commercial, collection entry codes) of controls and reference materials (e.g. bacterial reference strains) should be indicated.

Authors should provide information and guidance on methods that either singly or in combination lead to diagnosis of the pest. Guidance should also be provided on the interpretation of results, in particular the criteria for the determination of a positive or negative result for each method.

It is not necessary to include all methods which have been reported for a particular pest, only those which are reliable, currently available and considered to be of use for the purposes described in the draft ISPM.

When several methods are mentioned, their advantages and disadvantages should be given (e.g. duration of the test, cost, availability of reagents, requirements for specialized knowledge or equipment) as well as the extent to which the methods or combinations of methods are equivalent. If several methods are needed for the diagnosis, and / or if many alternative methods are included, a schematic flow diagram should be presented. The diagram should indicate the reliability of each method or combination of methods. It is not intended to be a decision-making tree but is intended to assist NPPOs in determining which method(s) are appropriate for use under different circumstances.

4 Structure and content of a diagnostic protocol

Diagnostic protocols should follow the layout of section 2.1 of the draft ISPM and should be arranged into the following sections:

- Pest information
- Taxonomic information
- Detection
- Identification
- Records
- Contact points for further information
- Acknowledgements
- References

Each section should be divided into sub-sections as required (especially the detection and identification sections) and both sections and sub-sections should be numbered. An index of the sections should be included at the start of the diagnostic protocol and the pages of the protocol numbered. The diagnostic protocol should not have annexes or appendices.

All abbreviations and acronyms should be written in full at their first mention.

4.1 Pest information

Authors should provide brief information on the pest (generally less than one page of type-written text), including, where appropriate, its life cycle, morphology, variation (morphological and/or biological), relationship with other organisms, host range (in general), effects on hosts, present and past geographic distribution (in general), mode of transmission and dissemination (vectors and pathways). It is not necessary to include specific details about the epidemiology of the disease or its management.

Supplementary information, such as detailed information on the pest's geographic distribution or hosts, should not be included except when directly relevant for diagnosis. The protocol is not intended to be a pest data sheet but such information should be referenced when available.

4.2 Taxonomic information

Under this paragraph, the correct scientific name and authority should be given and an overview of the relevant taxonomic hierarchy (Kingdom, Phylum, Order, Family, Genus, Species, relevant sub-specific taxon). Include synonyms and relevant former names (these may be taxonomically incorrect but relevant in relation to the literature) as appropriate. For fungi, the teleomorph name should be used; teleomorph synonyms may be included as appropriate. The anamorph name and its synonyms (as relevant) should also be presented. For viruses, internationally recognized acronyms should be included.

4.3 Detection

Authors should provide information and guidance on:

- the plants, plant products or other articles capable of harbouring the pest
- the signs or symptoms associated with the pest (characteristic features, differences or similarities with signs and/or symptoms from other causes), including illustrations, where appropriate
- the part(s) of the plant, plant products or other articles on/in which it may be found
- the developmental stages of the pest that may be encountered, together with their likely concentration and distribution on/in the plants/plant products or other articles
- the likely occurrence of the pest associated with developmental stages of the host(s), climatic conditions and seasonality
- methods for discovering the pest in the commodity (e.g. visual, hand lens)
- methods for extracting, recovering, and collecting the pest from the plants, plant products or other articles or for demonstrating the presence of the pest in the plants, plant products or other articles.
- methods for indicating the presence of the pest in asymptomatic plant material or other materials (e.g. soil or water), such as ELISA tests, culturing on selective media or baiting.
- viability of the pest

Guidance should be provided on resolving possible confusion with similar signs and symptoms due to other causes.

When a detection method may also be used for identification, it is recommended that it is described in the detection section and then referred to in the following identification section. Any comments about its use for detection or identification should be included in the relevant section. Methods that detect a group of pathogens rather than a specific organism should be described in the detection section.

Sampling procedures for inspectors and inspectors' instructions on recognition of the pest from signs and symptoms should not be included.

4.4 Identification

In this section, in addition to a description, authors should provide information and guidance on methods that either used alone or in combination lead to the identification of the pest. Methods for quick, presumptive indications of identity (which will later need to be confirmed) may also be included.

Two main types of methodology are included in diagnostic protocols, methodologies based on morphological, morphometric or biological characteristics of a pest and those based on biochemical and molecular properties. Morphological characteristics may be investigated directly or may only be examined after culturing or isolation of the pest. This may also be required for biochemical and/or molecular assays. Where culturing or isolation procedures are necessary components of methods, details should be provided.

Where appropriate, methods for isolation of pests from asymptomatic plants or plant products (such as tests for latent infection) should be given as well as methods for extraction, recovery and collection of pests from plant or other material. Methods should similarly be provided for direct identification of pests using biochemical or molecular tests on asymptomatic material.

For morphological identifications, details should be provided, as appropriate, on:

- methods to prepare, mount and examine the pest (such as for light microscopy, electron microscopy and measurement techniques)
- identification keys (to family, genus, species)
- descriptions of the morphology of the pest or of its colonies, including illustrations of diagnostic characters, and an indication of any difficulties in seeing particular structures
- comparison with similar or related species
- relevant reference specimens or cultures.

Guidance should be provided on resolving possible confusion with similar and related species or taxa.

4.5 Records

In this section, authors should refer to section 2.6 of the draft ISPM which lists the records required to be kept. Only records that are required in addition to those detailed in the ISPM should be listed in the protocol.

4.6 Contact points for further information

In this section, authors should provide contact details (name, address, e-mail, telephone, facsimile) of a few key organizations or individuals with particular expertise on the pest(s), which may be consulted regarding any questions or for confirmatory diagnosis. These contacts must agree to act in this capacity prior to their inclusion in the protocol.

4.7 Acknowledgements

In this section, the name and address of the experts who wrote the first draft of the diagnostic protocol are given, together with those of any others who made major contributions. In instances where these experts are the same individuals as those listed in the preceeding section, the details should be cross-referenced.

It is anticipated, and desirable, that draft protocols will be circulated for peer-review by the scientific community prior to submission for acceptance by the Technical Panel on Diagnostic Protocols. Details of such reviews should not generally be included in the protocol but should be detailed in a covering letter upon submission.

4.8 References

In this section, references to scientific publications and published laboratory manuals should be given. The references should be kept to a minimum and should concern the diagnosis of

the pest and species with which the pest may be confused, its symptomatology and methods for extraction, detection and identification. It is not necessary to include a complete list of references concerning geographic distribution, host lists, epidemiology and general biology, although reference may be made to key publications which review this information, e.g. pest data sheets.

Priorities for new diagnostic protocols

(Produced by the TPDP, 2nd meeting, Penang, Malaysia 5-9th December 2005)

Fungi and fungus-like organisms
Fusarium moniliformis / *moniforme* syn. *F. circinatum* (pine pitch canker)
Puccinia psidii (guava rust)
Insects and mites
Bactrocera dorsalis complex (*B. dorsalis* and *B. papayae* should be recognised as the same species and *B. phillipinensis* as a sibling species)
Dendroctonus ponderosae syn. *Scolytus scolytus* (quarantine scotylids)
Ips spp.
Liriomyza spp.
Nematodes
Aphelenchoides besseyi, *A. ritzemabo*, and *A. fragariae*
Viruses and phytoplasmas
Potato spindle tuber viroid
Viruses transmitted by *Bemisia tabaci*

Criteria for additional members of the Technical Panel on Diagnostic Protocols
(Produced by TPDP, 2nd meeting, Penang, Malaysia 5-9 December 2005)

Botanist

- Experience with plants that are regulated as pests (including weeds, Invasive Alien Species) and knowledge of the regulation of these organisms world wide.
- Experience primarily with diagnosis of plant pest and their seeds.
- Experience with pest pathways, in particular seeds and different types of grain.
- Preferred experience with producing diagnostic protocols.

Quality assurance expert

- Experience with quality assurance systems in regulated plant pest diagnostic laboratories; laboratory systems/accreditation.
- Preferred experience with acarology and/or entomology.
- Preferred experience with producing diagnostic protocols.

Mycologist

- Experience with diagnosis of regulated fungi and knowledge of the regulation of these organisms world wide.
- Practical expertise in the use of mycological techniques (ideally morphological and biochemical/molecular expertise) for a range of fungi.
- Preferred experience with producing diagnostic protocols.

Annex 4

Technical Panel on Diagnostic Protocols
2nd meeting, Penang, Malaysia 2005-12

WORK PROGRAMME 2005-6	
Dec 2005	25 Submit any additional requests for call for experts to Secretariat
WORK PROGRAMME 2006	
Jan	15 Call for nominations for new TPDP members and some experts 15 Draft of instructions to authors – G. Clover 30 J Chard to send out draft report of meeting TPDP
Feb	15 comments due back to G Clover on instructions to authors 18 Instructions to authors submitted to Secretariat - G Clover 28 TPDP members comment on and agree report
Mar	10 post report on IPP (SC)
April	CPM, approval of ISPM on DP??
May	8-12 SC
June	
July	15 final date for posting draft DPs on TPDP restricted work area
Aug	
Sept	15 final date for posting other documents for the 3rd meeting of the TPDP on IPP
Oct	16-20 TPDP – Agenda items • Consider draft DPs • Agree the instructions to authors • Update TPDP specification • Consider producing guidance/critera for requiring validation prior to publishing a DP and develop a process for consistent application by TPDP members • Consider the criteria for topics and priorities for standards (draft topics criteria from SPTA 2005) and determine whether particular criteria are required for setting priorities for DPs • Procedure for handling country comments • Review horizontal procedures (to be produced by the 4 TP Stewards) • Review working procedures (from the first meeting)
Nov	13-17 SC-7 20-24 SC
Dec	

Annex 5

Participants list for 2nd TPDP meeting, Penang, Malaysia, 5-9 December 2005

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Invited experts (seed health session)

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