



Original thinking... applied



Small but perfectly formed; how very small ILCs can help when there is no PT scheme available.

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Setting the Scene

- Diagnostic teams have always tried to participate in PTS and TPS whenever they have been available
- External (UKAS) audit findings relating to inadequate participation in **relevant** PTS
- The creation of the Plant Health EURLs offered the possibility of access to PTS, but this has become challenging post EU-exit
- ISO/IEC 17025:2017 7.7.2 b) participation in interlaboratory comparisons other than proficiency testing
- Group discussion between Fera and SASA to identify tests on our scopes of accreditation for which we could do a small interlaboratory comparison
- Agreed a plan for a **simple** approach to exchange blind samples

Bacteriology

- **Fera organised a swap with SASA** to focus on the extraction and identification of *Ralstonia solanacearum* and *Clavibacter sepedonicus*
 - Both labs (Fera & SASA) used three potato extracts previously screened 'negative' for the presence of *Ralstonia solanacearum* and *Clavibacter sepedonicus*.
 - One of the three extracts is spiked with *Ralstonia solanacearum*, one with *Clavibacter sepedonicus* and one left as a negative sample. The three prepared samples labelled in such a way as to allow 'blind' screening. Receiving laboratories screen the samples utilising their own UKAS accredited methods and report results back to the providing laboratory for comment/confirmation of results.
 - Both Fera and SASA have correctly identified extracts containing *Ralstonia solanacearum* and *Clavibacter sepedonicus*.



Virology

- **Fera sent SASA:**
 - 6 blind samples of freeze dried material for nepovirus testing (tomato black ring virus (TBRV), beet ringspot virus (BRSV) and negative material). SASA identified them all correctly to subgroup level by PCR.
 - Fera also sent 4 vials of freeze dried material for pospiviroid testing (3 different viroids and negative material). SASA correctly identified 3 out of the 4 samples.
- **SASA sent Fera:**
 - 7 vials of freeze dried material for TBRV and BRSV testing. Fera correctly identified all samples by ELISA testing.
 - SASA also sent 6 samples for pospiviroid testing (4 isolates of potato spindle tuber viroid, CLVd and negative material). Fera correctly identified by real time PCR and confirmed by PCR and sequencing.



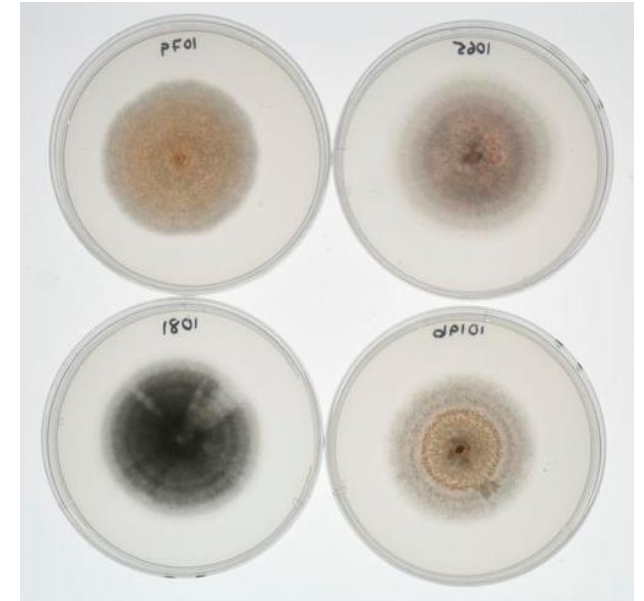
Entomology

- **Fera sent 2 slide mounted specimens to SASA** who confirmed our diagnosis.
 - The first slide was 5 puparia (4th larval instar) of *Bemisia tabaci*.
 - The second slide was a single adult *Thrips palmi*. SASA confirmed the diagnosis and returned the slides very promptly. The slides were also used for training purposes at SASA.



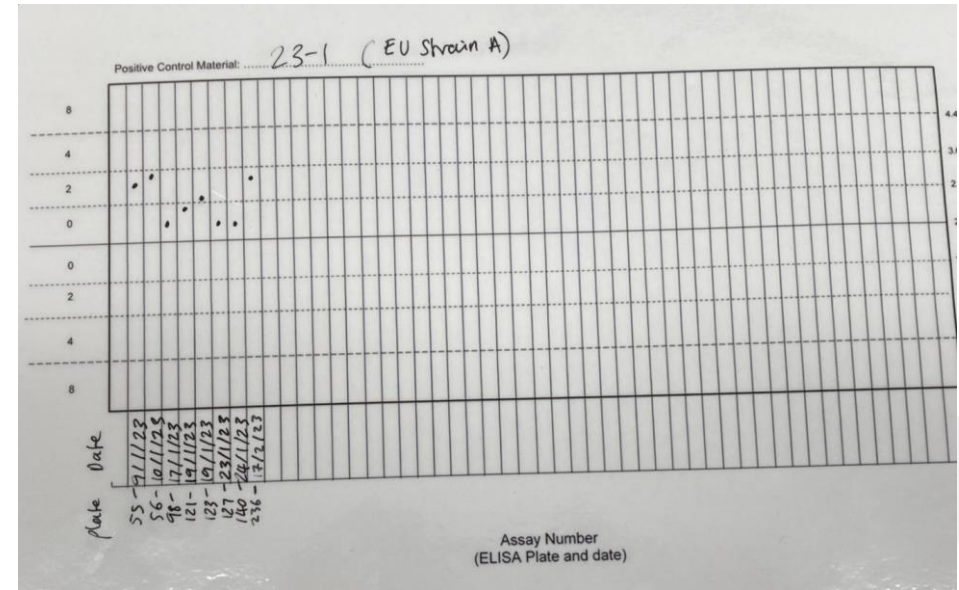
Mycology

- *Colletotrichum acutatum*: no labs to exchange material with
 - Internal 'blind testing' set up
 - Panel of 20 samples – mixture of *C. acutatum*, other *Colletotrichum* spp. and negative samples
 - Tested using ELISA
 - Pass/Fail based on 100% correct test results
 - For morphology a similar process is followed



Other monitoring

- Internal competency assessment – ‘blind’ testing
- Acceptance criteria for reference material
- Use of control (J) charts for reference material
- Re-testing using a different method



Conclusions

- UKAS have been **content** with what we have done to date
- Our aim is to carry out this reciprocal exchange of material on a yearly basis to function as an external check of laboratory competence
- We have kept the ILC **simple** and have not used assigned values; statistical evaluation of a small ILC is not straightforward
- In the situation where we had no options for sample exchange we set up an internal process
- EA-4/21 INF:2018 provides further guidance for a small ILC
- We have also embedded internal processes including regular rounds of 'blind testing' and monitoring performance of control materials.



Documents referred to:

- ISO/IEC 17025:2017: General requirements for the competence of testing and calibration laboratories
- EA-4/21 INF: 2018 Guidelines for the assessment of the appropriateness of small interlaboratory comparisons within the process of laboratory accreditation
- TPS 47 UKAS policy on participation in proficiency testing