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Your Ref.:

The Commissioner, Agriculture,
Andhra Pradesh

26 Feb 2008

Sir,

Sub: Procurement of handheld devices to support plant pest and disease surveillance

As requested, please find attached the mid-term report evaluating the pest surveillance device and software developed by Infronics Systems of Hyderabad.

The initial evaluation is positive. Infronics Systems' hardware meets the specifications set for a field surveillance device to be reasonably light, but rugged and useable in bright sunlight. The bespoke software application meets the priority requirements, reduced from the initial specification given the tight implementation timescale given (3 months effective development time).

Version 1.0 of the software experienced normal teething problems; version 1.1 issued (deployed for testing) in the week commencing 18 February is stable and generally fit for purpose; release version 1.2 (due around 15 March) is expected to contain a number of performance enhancements, improving the speed of the application and visibility in bright sunlight.

On this basis, if the Government of Andhra Pradesh is interested in using Information and Communications Technology to improve field surveillance of plant pests and diseases, by officers of the State Department of Agriculture and/or the State Agriculture University, the e-Pest Surveillance device (and accompanying software) produced by Infronics Systems Ltd appears to be the best immediately-available option.

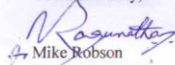
Following the pilot review, a number of factors need to be considered when planning procurement and deployment of the device:

- enhancements - procurement should incorporate the enhancements suggested by those involved in the pilot (incorporation of sensors for temperature and humidity), and also include "peripherals" such as a portable battery charger per device, and carrying strap; string attachment of stylus; kit bag to hold supporting documents and essential IPM kit such as magnifying glass
- number of devices to be procured - a minimum of 3-5 per district should provide a basic level of surveillance cover when surveying the full range of crops
- (trained) surveyors - surveillance staff using the device should either be hired from recent BSc Agri graduates on a project basis, or the surveillance task should be taken up by those already working in the district, with cover provided for other existing duties (SDA staff in particular have experienced competing priorities and have not always been available during the pilot/testing phase). At least 2 persons should be trained per device, if they are to be allocated for significant surveillance duties; if devices to be shared/used part time, then 5 persons trained per device
- effective local logistics support - effective local logistics support, hiring of vehicles and payment of local surveyor allowances and expenses is possibly the biggest constraint in pest and disease surveillance. Arrangements should be made at local level, and funds released direct to local (district) bodies to ensure timely action.
- data management and analysis - a surveillance information unit should be created at state level, initially as a project activity, for instance for an initial three-year trial period, both to manage data coming from devices, and support technical aspects of (agro-ecosystem) analysis; this unit should also perform as a helpdesk for surveillance 1 general, and for the device in particular

Finally, and for your reference, the price paid during this development pilot was around Rs 40,000 per device; software development was the subject of a separate contract. This price was for a one-off development (so there were no economies of scale in production) - for this reason, a future price could be expected to be lower (though a number of suggestions from users - such as including temperature and humidity sensors, and a separate battery pack for in-visit recharging if needed - could have additional cost implications if adopted). The original price did not include any additional warranty or support, or annual maintenance contract, for subsequent operational use of the device

Should you decide to go ahead with this procurement, additional advice can be provided over the next 10 days, if any further information is required or if assistance is needed reviewing specifications provided by Infronics,

Yours sincerely,


Mike Robson
Systems Manager
Plant Protection Service
FAO, Rome, Italy