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AN ONLINE, E-LEARNING SCENARIO FOR QUARANTINE

Quarantine inspection is a critical component in protecting agricultural and natural ecosystems from invasive pest species. As well as having information to help in the identification of intercepted organisms, quarantine officers also need to be aware of the many regulations and requirements associated with inspection procedures in plant quarantine. This can be very daunting for new quarantine officers, natural resource managers and others concerned with the risks associated with invasive species. For instance, do you know what a phytosanitary certificate is, a bill of lading, or an import permit? And do you know how these documents are used by quarantine officers when they are inspecting a shipment from another country?

To provide an interactive and amusing way of finding out more about this topic, Bob Ikin (an experienced quarantine consultant) and Geoff Norton (from the Centre for Biological Information Technology – CBIT - at The University of Queensland in Australia) have developed a scenario concerning a shipment of sweetpotatoes that you, playing the role of a quarantine officer, are asked to inspect. This case study, developed using CBIT's software – "Scenario Based Learning–interactive" (SBLi) - takes you through the whole process, using multimedia to provide a more realistic learning experience.

For further information about this scenario and a direct link to the freely available scenario that will run on your browser (such as Internet Explorer or Firefox), please go to http://www.sblinteractive.org/Home/Quarantine.aspx.

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REPLY: THREE ALIEN INVASIVE MEALYBUGS ARE ON THE MARCH IN ASIA

As a reply to the article published in the last issue “three alien invasive mealybugs are on the march in asia”, we have received the following message:

Dear Dr Muniappan,

I have seen your article on three mealybugs relating to climate change in the IAPPS newsletter. Your words are coming true and already there is a rapid intra/inter-country spread of these mealybugs, particularly in South East Asia. Your suggestion about the prudent use of the natural enemies is very important to contain further spread; timely action will be very important. The National Bureau of Agriculturally Important Insects (formerly PDBC) in Bangalore has recently got the consignment of three hymenopteran parasitoids from USDA-APHIS/Puerto Rico and the inoculative releases will be the first important step in managing the dreaded *Paracoccus marginatus*.

I have seen *P. marginatus* on Papaya in a very severe form at MPKV farm Pune, Maharashtra on 29 July 2010. Urgent steps are required to contain the pest from further spreading.

At the National Centre for Integrated Pest Management we are continuing with the massive surveillance and advisory project of Maharashtra this year. The project has been further improved and a similar activity has also been initiated in Orissa. Please visit our website at http://www.ncipm.org.in to see the project details. I would also like to mention that in Orissa we had to urgently implement this project as there was a large scale devastation of the paddy crop last Kharif season due to swarming caterpillar, *Spodoptera mauritia*. Climate change appears to be the major reason for the upsurge of this pest.

Thanks and with regards,
Bambawale

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PESTICIDE USE: A THREAT TO LOWLAND RICE INTENSIFICATION IN WEST AFRICA

The need to produce more food for a growing global population has led to an increase demand for rice production. Such a demand can only be met through intensification which may, in turn, cause ecological disturbance e.g. provoked build up of pests and diseases, disruption in natural control

mechanisms and high use of external inputs. The pressure is beginning to lead to a shift in production system from the fragile upland to the robust lowlands. The lowland areas are currently underutilized, permit residual moisture use and provide potential for expansion, diversification and intensification of rice production. However, there are several biotic constraints associated with lowlands such as breeding ground for vector mosquitoes, stem borers, African rice gall midge, rice yellow mottle virus, rice blast, bacterial leaf blight, and pests/diseases affecting associated crops.

Heavy yield losses due to pests and diseases have resulted in indiscriminate use of pesticides as a result of aggressive marketing. This raises concerns on food, soil, water and natural enemies. Because some farmers unknowingly use the contaminated water to wash and clean harvested farm produce in West Africa, it is obvious that chemical control is not suitable and unsustainable for use in lowland rice fields.

Experience from South East Asia has shown that brown plant-hopper (BPH) *Nilaparvata lugens* Stål a secondary pest of rice became a major pest due to insecticide misuse. Do we want a repeat of what happened in South East Asia in West Africa and other parts of sub-Saharan Africa which are currently targeted for intensification? If we are asking farmers not to use pesticides, are there alternatives? We believe integrated pest management (IPM) is the solution as most of the components (biological control, host plant resistance, cultural practices) except chemical control are environmentally friendly and compatible with one another when combined or when use singly. We need to promote the use of chemical-free products such as botanicals and pathogenic fungi as alternatives to synthetic pesticides.

Why are there abundant and diverse natural enemies in West Africa rice ecosystems? The answer is simple – low use of pesticides in rice fields. The high cost of pesticides means that few farmers have access to them at present. Every effort should be made to conserve and enhance the activity of these natural enemies. AfricaRice has successfully demonstrated that managing, rather than destroying, a "friendly weed" (*Paspalum scrobiculatum*) at the edge of rice fields (good sources of parasitoids - *Platygaster diplosisae* and *Aprostocetus procerae* close to the rice crop) offers African farmers free, non-chemical control of the continent's worst rice insect pest - African rice gall midge (*Orseolia oryzivora* Harris & Gagné, Diptera: Cecidomyiidae).

Whereas the challenge in Asia is to stop farmers from overuse of pesticides, in Africa our concern is to prevent future overuse of pesticides. The need to assist African farmers to intensify rice production in an economically and environmentally sustainable manner is a key strategy to ensure sustainable growth in food production. This can be achieved by developing stable, non-polluting systems that minimize external inputs while maintaining high levels of productivity.

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IAPPS Mission: to provide a global forum for the purpose of identifying, evaluating, integrating, and promoting plant protection concepts, technologies, and policies that are economically, environmentally, and socially acceptable.

It seeks to provide a global umbrella for the plant protection sciences to facilitate and promote the application of the Integrated Pest Management (IPM) approach to the world's crop and forest ecosystems.

Membership Information: IAPPS has four classes of membership (individual, affiliate, associate, and corporate) which are described in the IAPPS Web Site www.plantprotection.org.

The *IAPPS Newsletter* welcomes news, letters, and other items of interest from individuals and organizations. Address correspondence and information to:

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