

# 2<sup>nd</sup> International Conference on Agricultural & Horticultural Sciences

Radisson Blu Plaza Hotel, Hyderabad, India February 03-05, 2014

## Botanicals: The protectants of stored grains pests

Prashant Pandharinath Said and Pashte V V  
Banaras Hindu University, India

A large number of insect pests have been reported to be associated with stored grains. Almost all species have remarkably high rates of multiplication and, may destroy 10-15% of the grain and contaminate the rest with undesirable odors and flavors. The major pests of stored grains include beetles (*Callosobrunchus* sp, *Trogodermagranarium*, *Tribolium confusum*), weevils (*Sitophilus oryzae*, *S. granarius* etc.), moth (*Corcyra cephalonica*) and rodents. Botanical extracts kill and repel pests, affect insect growth and development, have antifeedant and arrestant effects. Continuous and indiscriminate use of pesticides has not only led to the development of resistant strains but also accumulation of toxic residues on food grains used for human consumption.

Recently, in different areas of the world, attention has been given towards exploitation of plant products as new approach in grain protection. Various scientific literatures already documented on bioactivity of plant derivatives to different storage pests. Higher plants like neem have also been used as antimicrobials against storage pests because of their relatively safe status and wide acceptance by the consumers. Various herbs and spices (e.g. turmeric, garlic, cloves etc.) have been used by people for management of storage pest. Plant products could offer a solution for the problems of availability, health risks, costs and resistance in the case of synthetic pesticides. There is need of more research regarding the biocontrol efficacy, practical applicability of the botanical pesticides. Biosafety studies should be conducted to ascertain their toxicity to humans, animals and crop plants.

### Biography

Prashant Pandharinath Said is a Research Scholar at Department of Farm Engineering, Banaras Hindu University, Varanasi. He has successfully completed MTech (Agriculture Engineering) in Post Harvest Process and Food Engineering from University of Agriculture Sciences, Bangalore. He has published 3 books and several research papers in reputed journals.

psaid4@gmail.com

## M-LPC- Management of late blight of potato through chemicals

Pranamika Sharma and M K Saikia  
Assam Agricultural University, India

In the present investigation for management of late blight of potato through chemicals efforts made to evaluate few commonly used fungicides for their comparative efficacy against *Phytophthora infestans* (Mont.) de Bary- the incitant of late blight, with a view to select the most effective fungicide for the management of the disease. Among the seven fungicides, two fungicides namely Cymoxanil 8% + Mancozeb 64% and Dimethomorph 50% were found most effective in pot evaluation which could reduce the disease to an extent of 99.98% and 99.95%, respectively when applied before appearance of disease. The same fungicides could protect 99.84% and 99.69% of the crop when applied after 1% appearance of the disease.

The best two fungicides, Cymoxanil 8% + Mancozeb 64% and Dimethomorph 50% were selected to compare their relative efficacy with the existing recommended fungicides Metalaxyl 8% + Mancozeb 64% and Mancozeb 75% under field condition. The highest protection (100%) against late blight with a corresponding maximum yield (73.20 q/ha) was recorded in the treatment of one prophylactic spray with Cymoxanil 8% + Mancozeb 64% followed by two additional spray with same fungicide at 10 days interval. Metalaxyl 8% + Mancozeb 64% when applied as one prophylactic spray followed by two additional sprays at 10 days interval could protect 97.64 % crop with a production of 62.60 q of healthy tuber per ha.

### Biography

Pranamika Sharma is a Ph.D. scholar from Department of Plant Pathology in Assam Agricultural University, Jorhat, Assam, and did her M.Sc. (Agri.) from the same university and has presented one oral paper presentation in a national symposium organized by Indian Phytopathological Society and two poster presentations and one abstract. She is presently working as a junior research fellow in a project entitled "Programme on Biofertilizer" under DBT-AAU Centre.

sharmapranamika@gmail.com