

WAY AHEAD

NCL RESEARCH PROMISES NEW WAY TO END MEALYBUGS MENACE

Replicates odour secreted by female mealybugs

SHASHWAT GUPTA RAY
reporters@sakaaltimes.com

Pune: Researchers from the Organic Chemistry Division of the National Chemical Laboratory have replicated in the laboratory the odour of female mealybugs to help trap large number of mealybugs known to destroy agricultural crops and ornamental plants.

The breakthrough assumes importance as it could provide an organic alternative to farmers against toxic chemical pesticides to protect their crops and prevent people consuming food crops laden with toxic chemicals.

"Our research team prepared in the laboratory the sex pheromones – scented agents secreted by female mealybugs to attract their male counterparts. We developed a new process to make individual isomers at NCL and tested these compounds in collaboration with American scientist Prof J G Millar on a half



NCL senior scientist D Srinivasa Reddy (*left*) checks an update on research work being done by his research associate and co-author of the mealybugs research paper Remya Ramesh.

hectare vineyard plot in the United States," senior scientist D Srinivasa Reddy told Sakal Times.

The compounds of the replicated odour were put in the traps. These traps were able to attract a large number of male mealybugs. "In the field trials, it was also found that the NCL-made compounds were superior in nature than the ones previously tried by Prof Millar. Based on these results, we have received requests from scientists from New Zealand to test the NCL compounds in their own vineyards," Red-

dy said.

The findings have appeared in the Journal of Organic Chemistry published by the American Chemical Society titled 'Syntheses and determination of absolute configurations and biological activities of the enantiomers of the long-tailed mealybug pheromone'. It has been authored by NCL researchers Remya Ramesh, Pandrangi Siva Swaroop, Rajesh G Gonnade and D Srinivasa Reddy (lead author) and Prof Millar from University of California amongst others.