

sions about insecticide use. *H. punctigera* has not presented the resistance problem of *H. armigera* and remains susceptible to the range of insecticides used against it, including those that have been used long term such as the synthetic pyrethroids.

Clues to the relative abundance of *H. armigera* and *H. punctigera* are:

- The size of the spring immigrations of *H. punctigera*, as recorded in local pheromone traps;
- The timing of the spring emergence of *H. armigera* from diapause – the new Helicoverpa Emergence Model can be used to predict when this will occur in your district; and,
- The crops – maize and sorghum are hosts only to *H. armigera*, so control in these must target this species.

Also, in Central Queensland, *H. armigera* populations are present all year round due to the absence of a diapause state.

As an end of season non-chemical management tool, pupae busting is effective at reducing carryover of resistant insects to the next season. It is equally important in grain, pulse and cotton crops that have had Helicoverpa pressure and been sprayed.

Growers should consider pupae busting fields that may potentially harbour insecticide resistant Helicoverpa pupae. The rule of thumb is that at risk crops are those which still have Helicoverpa larvae in them by mid March when the cooler weather initiates diapause in *H. armigera*.

This research is supported by the GRDC and CRDC. For more information contact Dr Louise Rossiter, NSW DPI, Narrabri ph 02 6799 2428 or louise.rossiter@dpi.nsw.gov.au ■

GRDC on the lookout for innovative research partners

The Grains Research and Development Corporation (GRDC) is seeking partners to help drive its research priorities and increase farm profitability and sustainability.

Farming systems groups and research organisations have been invited to tender for projects outlined in the GRDC's Investment Plan 2009–10 (open and multi-stage tender).

GRDC chairman Keith Perrett said the plan was an opportunity for prospective research partners to work with the GRDC to ensure that Australian grain producers were provided with technologies and practices enabling them to compete effectively in global grain markets.

"The GRDC will continue to focus investments on the development and adoption of technologies and practices that will meet our stakeholders' needs and enable the Australian grains industry to remain globally competitive," Keith said.

"Our investment plan addresses climate change, productivity growth, supply chains, markets, natural resource management, biosecurity, innovative skills and technology development."

Keith also flagged changes to the electronic application forms – known as 'e-forms' – research partners used to apply to the GRDC for funding.

KEY POINTS

- GRDC calls for applications from potential research partners
- Investment plan priorities include productivity, natural resource management and climate change
- Tenders close at 2pm AEST, October 2.

"The e-forms have been updated as part of the continual improvement of GRDC processes," he said. "The updated forms now capture information on environmental, social and economic risks and benefits, and include additional spatial and crop-type information that will assist us in reporting research outcomes. These changes will also apply to project specification, progress reports and final reports." ■



GRDC chairman Keith Perrett.

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