

CURRENT AND FUTURE INSECT SOLUTIONS FROM DOW AGROSCIENCES
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Abstract

On June 1st 2001, Dow AgroSciences acquired the agricultural products of Rohm and Haas Company which included the new Lepidoptera active compound Intrepid*, as well as Confirm* insecticide, Kelthane* miticide and Goal* herbicide all of which are labeled on cotton. Dow AgroSciences considers the Rohm and Haas product acquisition as an additional and significant step forward in achieving their cotton vision. The Dow AgroSciences cotton vision is "that Dow AgroSciences will be a leader in providing pest control solutions for the cotton consultants and growers". To obtain this goal, the plan is to develop a broad based portfolio of solutions including traditional crop protection products, conventional seed and modified seed technology. Dow AgroSciences also wants to be recognized for providing exceptional product stewardship and developing programs in partnership with growers that result in sustainable and affordable insect protection.

The introduction of Tracer* Naturalyte* insect control in 1997 set the stage for growth in the cotton insect markets for Dow AgroSciences and Tracer has rapidly become a foundation product for Lepidoptera or caterpillar control. Tracer utilizes a water based environmentally friendly formulation and was classified as a reduced risk product by the EPA and won the 1999 Presidential Green Chemistry Challenge. Tracer is very selective, resulting in a powerful IPM tool that can fit many use patterns throughout the season. Tracer has a unique mode of action that can be rotated with all other products as long as the resistance management guidelines on the label are followed. The Molt Accelerating Insecticides (MACs) Confirm and Intrepid are a great compliment to Tracer in that they are very IPM friendly and provide longer residual control of armyworms and loopers. The MACs were the first reduced risk products and winners of the 1998 Presidential Green Chemistry Award. Intrepid was marketed for the first time during 2001 on cotton and apples. There presently are some plant back restrictions that prevent rotation to crops other than cotton created by some initial data gaps. The studies to remove these restrictions, however, have been completed and a review at the USEPA is scheduled for May-June of 2002 prior to the major use periods. The plan is to maintain both Confirm and Intrepid registrations for the near future to ensure supply but longer term Confirm may be phased out. Lorsban* recently successfully completed FQPA mandated reregistration. Changes to the label included reducing the maximum number of applications from 12 pts/ac (6 lbs a.i.) to 6 pts/ac (3 lbs a.i.), the addition of a 10 day retreatment interval between products containing chlorpyrifos and spray drift buffer zones. Lorsban 4E remains a flexible and valuable tool in the consultant's tool-box. Lock-On is a patented polyglycol formulation of chlorpyrifos for aerial applications in arid environments like Arizona. Lock-On and Lorsban are not necessarily cross-resistant with other OP's due to different chemistry that is often not metabolized by insects the same way as other OP's. Kelthane (dicofol) which was also obtained from Rohm and Haas, has been providing mite control on over 30 species of mites for over 40 years and fits well in IPM programs. Kelthane should only be used once per season due to resistance concerns but it is still effective and should remain in the rotation to protect all miticides. Telone II (1,3-dichloropropene) remains as the best soil fumigant for nematodes in cotton. Telone has also completed the reregistration requirements. DE-225 (gamma-cyhalothrin) is being developed by a joint venture between Cheminova and Dow AgroSciences. DE-225 will be the most active single isomer, newest generation pyrethroid in an advanced capsule suspension formulation. It is anticipated that it will have a broad label and be registered in time for use for the 2004 season. Phytogen seed company, a subsidiary of Dow AgroSciences, is committed to supplying conventional and enhanced or biotechnology seed solutions. Current leading conventional varieties are: PHY 72 Acala, PHY 76 Pima, and PSC 355 (high yielding, early season Midsouth-Southeast variety). Phytogen experimental varieties include: PHY 78 Acala and PHY 88 Pima for San Joaquin type climates, PHX-433xxx.20 a mid-full maturity Southdelta/Southeast variety, and PHX-A102 Acala a high quality glyphosate-tolerant variety. Biotechnology solutions are being aggressively pursued with promising Bt and non-Bt solutions in the pipeline that will be made available to seed companies other than Phytogen to broaden the value to growers. The first output will be a stacked Bt in PSC 355 that will offer broad spectrum Lepidoptera control with a planned 2004 launch. Rounding out the Dow AgroSciences' cotton insect portfolio is an insurance-like program requested by growers to control their overall liability. After certain requirements are met the costs of controlling insects are shared. This is the 2nd year of a pilot program.

Dow AgroSciences is committed to meeting the needs of the consultant and growers by not only marketing good products but developing strong relationships via dedicated sales and research development personnel. We hope to grow not only our portfolio but also the strength of our partnership with the cotton industry. For the most recent labels and detailed technical information see www.dowagro.com.