# A proposed IRMS for the warm areas in 2002–03

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The Insecticide Resistance Management Strategy or IRMS defines usage patterns for insecticides and miticides in the cotton industry. It is revised annually after winter meetings which are attended by most consultants and some cotton growers in nearly all regions.

It is a most important decision process since the agreement and cooperation of consultants on a pest management plan ensures the continued viability of the cotton industry.

Different strategies are formulated corresponding to the length of the growing season in the southern, mid and northern portions of the industry. The strategies are general enough to be accepted by most but often do not reflect the opinions of each growing region, even if they are diverse. There is evidence to suggest that the strategies should and could be more specific.

It is almost certain that by the end of the 2001–02 season there will have been very low pest pressure in most regions and quite high pressure in others, even at similar latitudes. In some cases this has been the pattern for several years. Therefore in setting strategies for 2002–03 it would seem more productive to address differences rather than to look for similarities.

But there are two perceived problems. Firstly, some regions are not distinct, such as St George and Dirranbandi, and secondly, it is felt that if migration occurs across different strategies, then several generations of larvae could be continuously exposed to certain insecticide groups, which is not good resistance management.

The IRMS must satisfy several criteria, namely:

• Manage insecticide resistance;

• Group similar chemicals in successive stages;

• At any time, provide reasonable control options;

• Encourage non-insecticidal control methods;

Pest management cooperation is vital

TABLE 1: A proposed insecticide strategy

| Insecticide/Miticide | 2001-02 Usage | Proposed 2002-03 |
|---|---|---|
| Tracer | Dec 10-Jan 20 | Stage 1-Stage 2 |
| Endosulfan EC | Stage 1-Jan 10 | Stage 1-Stage 3 |
| Mectins | Stage 1-Stage 2 | Stage 2-Stage 3 |
| Steward | Stage 1-Stage 3 | Stage 2-Stage 3 |
| Organophosphates | Stage 2-Stage 3 | Stage 3 |
| Oils | Nil | Stage 1-Stage 3 |
| Others | | Unchanged |

• Delay pyrethroid use; and,

• Be scientifically based and have majority acceptance.

## PROPOSED CHANGES FOR 2002-03

The following proposals for the 2002–03 warm area strategy concern heliothis and spider mite management only. Aphid management seems satisfactory so need not be changed. Usage is again defined in terms of stages with Stage 2 beginning on December 10 and ending on January 20.

Tracer has been moved forward to provide an alternative to endosulfan, allowing maximum use by ground rig to reduce cost. Both endosulfan and Tracer are less active in hot weather so are natural fits in Stage 1. Foliar Bt and Gemstar are also available in Stage 1.

Endosulfan EC should continue to be available for ground rig use throughout the season as it is one of the few registrations for green vegetable bug in Stage 3. It will not be abused because there is universal awareness of its hazard.

Emamectin and abamectin (Affirm and Agrimec) have been moved to Stages 2 and 3 to allow rotation of Affirm with Steward and late season use of Agrimec as a miticide. I am aware that both these products have been used outside the strategy in 2002, without Stage 1 usage.

This usage allowed very satisfactory control without the phytotoxicity of organophosphates and Comite and did not increase selection pressure on the mectin group.

Opponents of this move will argue that Abamectin is useful in Stage 1 as a miticide and occasional larvicide against Heliothis punctigera. I would argue that the six-spotted thrip will control early mites, if allowed to, and that control of H.punctigera is not warranted, except perhaps in one western region. Overall there are more benefits in moving the group to Stages 2 and 3.

In its first full commercial season Steward usage has been allowed in all three stages. As a soft and very effective larvicide, its use in Stages 2 and 3 would correspond with the critical times of flowering and boll filling and I expect will find 100 per cent acceptance.

Usage times of the other chemicals are unchanged except that organophosphates are restricted.