

THE WORM KEEPS

TURNING

Who would have thought that the demise of chlordane would have caused so many problems for the greenkeeper?

Chlordane's only crime was to be a persistent organo-chlorine compound and as such was part of MAFF determination to phase out such substances. No evidence was presented that it was more harmful than was already known and, when handled according to directions, it gave excellent control of worms in fine turf. Its persistence was such that operator contact was limited to once per year and on heavy soils this could be extended to a span of once every three years. In COSHH terms this would have made chlordane the preferred substance as 'an engineering control'.

Not to worry, they said, now we have Carbaryl in a flowable formulation, which gives good control and is not so persistent in the soil. Carbaryl has the same broad classification as chlordane (both are listed 'Harmful'), but to give the equivalent degree of control as chlordane it needs annual applications and on some soils more than one application was needed. This means a higher degree of exposure to an organo-phosphorus compound for which there is an HSE Guidance Note MS17 - 'Biological Monitoring of Workers Exposed to Organo-phosphorus Compounds'.

The flowable formulations worked well enough providing they were applied in the right conditions and at the right water volume - eg. a minimum of 1,000 litres per hectare, (more than 100 gallons per acre in old money!). We were resigned to the fact that this was to become the standard treatment for worms: after all, this is in line with the current thinking on changing to the use of less persistent substances in general.

The new products have hardly touched the shelves of our stores when we learn that the supply of flowable formulations are to cease due to 'supply difficulties' from the EC manufacturer, who it seems has been recently acquired by Rhone Poulenc. And... surprise, surprise, a new wormkiller product is launched at IOG by Rhone Poulenc! Not a flowable formulation but a wettable powder, taking us back more than 20 years to the days of handling those nasty, awkward materials. Why, you may ask, has this been allowed to happen? The new formulation is MAFF Approved, so presumably all those distinguished (and expensive) people gave careful consideration to the safety of the operator when they granted the Approval. But wait - that is not all - for my bleary eyes read that the new powder formulation is "semi-persistent" for up to two months! Not quite the claims made for the flowable formulation. It now seems that we will have to apply this product, now the only available 'effective' wormkiller on the market, at least twice a year.

The operator must now handle a product that is classified as 'Harmful If Swallowed', in dusty powder formulation, pre-mixing it in a bucket before putting it in the spray tank. Then there are the problems of cleaning the scales (yes - you must go out and buy some scales!) and the mixing vessel, and then worry about effective mixing in the tank.

Is this the best that can be done in this age of enlightenment and concern about health and safety at work? Is the greenkeeper the butt end of some marketing joke by the manufacturers and an off-day by some Ministry scientist?

Not good enough, say I. Even a child can see that using the new wettable powder formulation is not just a

regressive step, it is a mighty plunge backwards to the bad old days.

In COSHH terms, if we were given a free choice, the powder formulation would be discarded in favour of the liquid; but we must not look back. Is this progress?

Jon Allbutt

No-one can accuse Greenkeeper International of blindly taking sides, although we are certainly not above taking a firm stand on issues that concern the well-being of the greenkeeper or his golf course. Thus we invited the manufacturers mentioned in Jon Allbutt's article, Rhone Poulenc, to offer their side of the equation. Here is their reply:

We believe there are a number of factual errors in the material. Our response, however, will be restricted to the main ones relating to our products.

It was surprising for us to read that 'Twister' is the sole worm control product available. This is totally incorrect, as Rhone-Poulenc market three products for worm control in turf.

'Castaway Plus', the original formulation of which was launched as far back as 1984, is as readily available today as it has been for some years. It is a flowable formulation and is held in high esteem by a large number of turf care professionals, offering as it does long term control of worms and leatherjackets.

Rhone-Poulenc launched 'Twister' as a wettable powder to increase the available choice of products. To help minimise handling a specially designed measuring beaker is included with each box of the product. Rhone-Poulenc think it is important that they give turf care professionals the option of being able to use a contact acting product and 'Twister's' contact action gives quick control of problem worms on playing surfaces ranging from sports fields to greens.

To round off this response, Rhone-Poulenc would like to point out that a third worm control product was launched at the IOG exhibition in September. 'CDA Castaway Plus', a flowable product, gives worm control at an application rate of 10 litres per hectare and when applied with a Lancelot CDA lance fitted with the new Rhone-Poulenc bleed valve, requires no mixing, is used straight from the bottle, and can be applied directly to the problem area. It reduces handling, saves time and is a major advance in terms of novel application technique.

In conclusion, Rhone-Poulenc feel it is important that greenkeepers are provided with a wide range of products in order that they may select the best application for their situation.

**Austin Davies, Product Manager,
Rhone Poulenc**

■ As the British greenkeeper struggles to keep down the nuisance of the earthworm, and to illustrate the difference in green-keeping methods and principles between the USA and the UK, an article in the most recent issue of the USGA Green Section Record, written by a Professor of Entomology in Kentucky, offers an alternative viewpoint by extolling the virtues of the earthworm and suggesting they should be encouraged, as they reduce thatch. Aeration and sensible management to ensure thatch-free turf is not mentioned.

Now we read (Daily Telegraph, November 13th) that 1.5 million earthworms are to be imported at a cost of £70,000 from Holland (no-one it seems was prepared to harvest worms in Britain, though in Holland there appears to be a thriving night-time worm catching industry) to improve the top soil over what was once a rubbish tip, on the Stockley Park golf course adjacent to Heathrow Airport designed by Robert Trent Jones.

Within three years the worms are expected to have multiplied 30-fold and when the course is handed over to Hillingdon council for public use in 1993, the worms will be turning thick and fast. Then, no doubt, the greenkeeper will find the worms and their wretched casts a damned nuisance and find the task of elimination made doubly difficult by the aforementioned restrictions on chlordane.