TALKING HEADS

Master Greenkeeper Kerran Daly adds to the debate over pesticides

The great pesticide debate rages on. Articles by Tony Howorth, David Stansfield and Neil Baldwin in the December issue of Greenkeeper International all raised questions about the future of our industry.

It seems to me that a great deal of the argument hinges around the statement that "it is better to use an effective product once, under controlled conditions, than one with reduced longevity many times." This sounds eminently sensible but what is really being said? Firstly, is it not naive to talk about "controlled conditions". This implies:

1. We are all perfect and accidents never happen;
2. The proper application of the product is all there is to it. What about manufacture, waste products, transport, storage and handling?
3. That once down we can forget about it. What about long-term effects on the soil micro-organism population, the ground water and ultimately the wider environment?

Secondly, as David Stansfield pointed out, if a chemical is to be effective over a long period it must be persistent in the soil. This persistence increases the hazard greatly. As a result of applying lead arsenate today, its effects on the ground water would not be seen for many years. Less persistent chemicals reach the ground water much quicker and are therefore more easily traced, monitored ad assessed.

The effects of less persistent chemicals are also more selective as they lose their efficacy as they travel down through the soil profile. This can be beneficial in retaining some of the more helpful soil organisms.

When assessing the use of any chemical under COSHH we must consider the RISK and the HAZARD. There is certainly a greater risk of accident and contamination with spraying ten times as opposed to once but what about the hazard? Would you rather fall off your mower ten times or out of an aeroplane once? You would not have long to contemplate which is the most hazardous.

As part of the legislation under Health and Safety scientists are employed to do specific objective tests and decide whether a chemical is safe to use in a given situation. It is of no consequence to them if removing that chemical poses serious problems for the manufacturer or end user, and rightly so. Imagine if this decision was left to the horticulturalists or the trade, a recipe for self-interested disaster. We are always complaining that golfers keep trying to tell us our job but it seems that we think we know better than trained scientists who carry out the tests.

It is very weak and short-sighted of us as greenkeepers to support Health and Safety legislation which improves our work environment and enriches our lives and then to criticise the removal of products which are deemed to be dangerous because it is inconvenient.

To be perfectly frank, I am not at all sure what all the fuss is about. I am told by the people who know best that the current products are safer than the old ones. it costs our club 0.5 per cent of its annual expenditure to control our worm problem, a problem that as anyone who works on the chalk downs will tell you is our number one problem. With thio-phenate methyl we get effective control at a reasonable price. If clubs find the price too high then two things can happen. The cost will come down in response to market forces or the products will disappear. Clubs will then have to reassess whether the price was too high. This will leave a gap for new products to fill.

Fenarimol is a prime example of a new safer chemical (no hazard warning under COSHH) which would not have been marketed if legislation had not banned more toxic chemicals. some would have us go back to the old mercury salts and would no doubt say that they were perfectly safe but I think I would rather risk an accidental dose of fenarimol than a swig of mercurous chloride.

Neil Baldwin stated his belief that new safer products are just around the corner and this is all because we have had the wisdom to withdraw dangerous chemicals and force research and development into new ones.

Interestingly, the well-known mole destroyer aluminium phosphide came up in Tony Howorth's article. I am glad to say I have never had the displeasure to use it but it reminded me of a recent conversation with a highly respected greenkeeper at the Cannington seminar who warned me off the noxious substance. he reported it to be highly unstable and very difficult to use with no good result. A trade salesman then joined in the conversation stating that "the legislation surrounding the product was so severe that his company could not and would not market it." I was cheered to see such a fine example of the legislation in action.

It has been suggested that the chemical companies are making large profits out of increased chemical sales. It is politically embarrassing for me to be seen to defend multi-national chemical companies but in this case I am intent on doing so. We are a small market and research and development costs and the costs for registration are enormous. Even so, it is the market which dictates the price and if no-one buys it, it will fail.

The charge that costs are too high are refuted by my budget figures. All too often I hear greenkeepers complain about the cost of pesticides while they are quite happy to fork out huge amounts on fancy fertilisers, particularly liquids, at highly unrealistic prices. I must admit that in the fertiliser business most products price themselves off my shopping list and I would be happy to see most disappear.

Chemical companies have a right to make a living and I am very pleased that they are now doing so by producing less hazardous chemicals under tighter regulation of the manufacturing process. The alternative is for them to go on producing the old long-term cures which are not sustainable in a modern day free market which requires growth. To compete against cheap labour regimes abroad, British companies need new markets in high-tech areas. The control of pollution has provided such markets. We must generate wealth and growth to improve our standard of living and be leaders in the field of a cleaner and better future. If we stand still we will be swallowed up by the "Made in Taiwan " phenomenon.

What if legislation got so tight all pesticides were withdrawn? David Stansfield reported that this already is the case in other European countries, without any insurmountabie result. I think the thought of no pesticides should not frighten greenkeepers and indeed they should welcome it. With no chemicals, only those following sound cultural practices in pursuit of true British fescue/bent courses would survive. At present, high fertiliser, heavy watering regimes producing lush meadow-grass greens are being maintained by heavy use of blanket fungicides.

No greenkeeper, including myself, could afford to adopt a unilateral policy of never using pesticides. The initial deterioration in his course, and his course alone, would lose him his job. However, if all courses were in the same boat then the long-term result of *Poa annua* free courses should be welcomed by all managers who believe in a return to golf played as it should be on fine-leaved species only.

The withdrawal of all pesticides would have other benefits in that the growing mound of paperwork and the constant headache of keeping abreast of current legislation would be greatly reduced. The environment for golfers, employees and the public would be much improved. The return to cultural controls would mean more jobs for greenkeepers. It is true that chemical companies would lose market and would probably need to shed some staff but I am convinced there would be a nett gain in employment which is good news for our thousands of young unemployed.

The removal of chemicals would leave a large gap in the market for entrepreneurs with innovative cultural control ideas. This too would create new areas for employment. All of these side benefits on top of the forced return to sound greenkeeping principles make the withdrawal of all pesticides an attractive proposal.

In the meantime, use of less toxic materials demands higher standards of management and so educated managers are what we need most. Thankfully BIGGA has made this its top priority over the past five years and I am sure we will reap the benefit by the sensible use of less persistent chemicals in an integrated management system.

In the mid to late '60s, greenkeeping lost its way with the introduction of heavy fertilising, misused automatic irrigation and cure-all pesticides. Those of us who have fought long and hard against the first two heresies should add their weight against the third because it is now the only thing propping these up.