



Potential active ingredients are tested in a 750m totally computer controlled glasshouse. The temperature inside is 22°C and the air is changed six times per hour

gain approval for the product Spearhead. In the agro chemical industry you not only have to get approval for the active ingredient but for every individual product. Researchers had to gather all the data on efficacy and safety from five years of field trials before the new selective herbicide could be submitted to the Ministry of Agriculture, Food and Fisheries in 1992. MAFF then took two years to evaluate the data (which is normal) and give it MAFF approval before it was launched last September.

As you can see, developing an active ingredient is only half the story. The active ingredient must be turned – either alone or in combination with other approved actives – into a product that is stable in storage, can demonstrate efficacy in its use area, is available to the user in a format which enables effective application and passes all the relevant tests.

Products destined for golf courses are tested on golf courses. Spearhead, for example, was tested at The London Golf Club in Kent among others. The problem with tests though is that you have to have a “control” area, an area that is untreated. Most course managers and head greenkeepers don’t mind someone coming onto their course and spraying, but they’re not willing to let part of a green get rife with fusarium patch and other diseases.

At Ongar there is 65x25m trial site which is

sown with some great seeds – and then totally mis-managed. One strip with bent and fescue grasses is fed so much nitrogen it almost glows. Fusarium patch, not surprisingly, develops quite quickly. And just to make sure it does, infected cuttings are also put on the turf. The strip next to it is sown with meadow grass and fescue and mis-managed again to bring on fusarium patch. Other strips are sown with pure bents and slender creeping red fescue and starved of nitrogen to bring on red thread. When the disease has got hold, each metre square of the plot is sprayed with a different formulation and the results are monitored.

The final strip on the trial site is divided into five sub-blocks – pure bent, chewings fescue, creeping fescue, smooth stalk meadow grass and ryegrass. When a formulation shows promise it is applied here to show there is no damage to the turf at double and triple rates of application.

About 20 years after discovering a new active and spending at least £20 million developing it, a new product is launched.

“R&D is the key. Fortunately Rhône-Poulenc Environmental Products is part of a huge company which is investing millions in research in a whole variety of areas, especially agriculture. We are able to ride on the back of that research,” says Hill.

Toothpaste and tyres, to fungicide and herbicide

Rhône-Poulenc Environmental Products, previously known in the UK as May & Baker with whom they started working in the 1920s, is part of the multi-national Rhône-Poulenc Group, which has an annual turnover of £10 billion.

The group, which returned to the private sector in November 1993, has developed an enormous range of products that helps enhance everything from toothpaste and tyres to tights, ice-cream, rubber balls and video cassettes. It also has a hand in things we hope we don’t see – airbags. Rhône-Poulenc makes the silicone coating that keeps the folded fabric from sticking together during storage in Fords and Renaults. It also produces the flame-resistant fibres used in protective clothing for firefighters.

For greenkeepers it has a range of 30 herbicides, fungicides, insecticides and growth regulators. It also offers the Guardian range of fungicide and polymer film coated grass seed mixtures. Leading herbicides include Clovotox, Dicotox Extra, Supertox 30, Vitesse and Spearhead. Among its top fungicides are Rovral Green and Mildothane Turf Liquid. Insecticides include Castaway Plus and Crossfire.

Rhône-Poulenc employs more than 80,000 people worldwide, of which nearly half work in France. The products are manufactured worldwide too, with two of the plants in England at Norwich, Norfolk and Belvedere, Kent. Most of the herbicides are manufactured in the UK. The fungicides come from France and the insecticides are made here and in the USA.

“Rhône-Poulenc Agriculture Limited is not just a British business, but a world centre of growth,” states its publicity blurb. And now it is investing in another growing organ – the British and International Golf Greenkeepers Association Education and Development Fund.

● Casual burning or burial of empty pesticide containers is not possible without specific consent from the National Rivers Authority and/or HM Inspectorate of Pollution or from the Environmental Health Department of your local authority.

To assist users of professional pesticides dispose of empty containers correctly, Rhône-Poulenc Environmental Products is offering vouchers which give up to £75 off the cost of a three-year disposal contract with Envirogreen Limited. Tel: 01277 301115.