The challenge to maintain and improve the seed health and growth of a wide range of crops was the main theme. The loss of organomericurials and lindane, for example, have accelerated the development and adoption of alternatives. Advances in new fungicide chemistry are starting to increase the range of seed treatments available. Alternative chemicals and the use of physiological techniques to enhance crop establishment are now becoming widely used, whilst crop production protocols following the principles of integrated crop management are having an effect on the use of existing products and the introduction of new ones.

Control of take-all of wheat is now possible by chemical seed treatment, using the recently-launched fluquinconazole (Aventis) or silthiofam (Monsanto) (awaiting UK registration), though varieties responded differently and somewhat unpredictably to these fungicides.

The Syngenta neonicotinoid insecticide, thiamethoxam, featured in several papers and posters demonstrating potential for controlling aphids, flea beetles, wireworms attacking major global crops. Research at IACR Broom’s Barn, UK, has found it gave control of aphids and virus in sugar beet equivalent to the currently used imidacloprid, of the same chemical group. Both materials were active against capsids and flea beetles in sugar beet in Finland.

Imidacloprid plus beta-cyfluthrin (Bayer) has shown potential as a much-needed replacement for lindane (gamma-HCH) against these beetles (and virus) in UK winter rape. For the same reason, thiamethoxam is being developed on spring rape (canola) in Canada.

Research at Horticultural Research International (HRI) and at Newcastle University on using antagonistic bacteria and mycoparasites to combat seed and soil-borne diseases is showing promise. Application in film coatings and during seed priming is being investigated. In Denmark, seed treatment with either dilute acetic acid or mustard flour achieved control of bunt just short of the 98% desirable. In Sweden sanitisation of infected cereal seed with warm air gave results comparable to chemicals.

Despite all these encouraging developments, there is still a danger that seed health could be compromised by omitting treatments to save money, rather than exploiting them more to save sprays.

The 288-page symposium proceedings, Seed Treatment Challenges & Opportunities, (ISBN 1 901396 76 2) is available now priced £35, plus appropriate delivery charge, from BCPC Publication Sales, Bear Farm, Binfield, Bracknell, Berkshire RG42 5Q E, U K. Tel: 0118 934 2727 Fax: 0118 934 1998. Email: publications@bcpc.org.

NEW SEED TREATMENT GUIDE

It was timely that a new 4th edition of the popular A Guide to Seed Treatments in the UK, edited by Derek Soper, should have been launched at this seeds meeting. The guide is aimed to meet the need to keep up-to-date with changes in recommendations and product approval status, as well as company mergers and acquisitions in the specialised seed treatment market since the publication of the last edition in 1995. The guide provides up-to-date information on UK seed treatments for use against a variety of pests and diseases in all the major UK crops including broad-acre and minor crops as well as bulbs and seed potatoes.

In this 52-page edition of the guide, all the tables of products (which constitute half of the publication) have been completely updated and new sections on organic seed, ‘mobile’ seed treatment and the International Seed Treatment Association (ISTA) are included. There is new labelling advice for seed potatoes and imported seed as well as revised sections on seed health testing, pests and disease targets and minor use arrangements.

Copies of A Guide to Seed Treatments in the UK, 4th edition (ISBN 1 901396 28 2) cost £10, including P&P in the UK. Orders should be sent to BCPC Publication Sales (see above for details).