

Developing Crop Protection Strategies for the Nursery

Audrey M. Litterick

The Crop Health Centre, Department of Plant Science, SAC Auchincruive, Ayr KA6 5HW

INTRODUCTION

The production of quality, healthy plants is more important than ever before. Consumers have become increasingly demanding in recent years and if nurseries are to survive in today's highly competitive environment, they must produce a consistent, quality product. There has been a gradual increase in records of disease on ornamentals. This may be partly because of a greater awareness of crop health. It is also because there has been an expansion in ornamental production in the U.K. and because there is increasing specialisation within nurseries. The use of re-circulating systems for nutrients and water also causes an increase in disease.

It is increasingly difficult to achieve effective crop health management on ornamentals. The technology surrounding crop protection is constantly changing. New products, techniques, and services are being developed and existing ones are being changed, adapted or removed from the market. There is very little data on ornamental crops in comparison to that on major agricultural and horticultural crops and there are very limited funds available for research into new or unrecorded pest and disease problems on ornamentals.

Growers are under increasing pressure to minimise pesticide use, a situation complicated further by constant changes to approvals and by extensive legislation, which must be understood and complied with. The cost of legislation simply means that the production and sale of horticultural crop protection chemicals is not profitable so there is a decreasing number of them available for use on ornamentals and there is little data on their use. Many pesticides have to be used at the growers own risk. There are relatively few conferences or workshops on crop protection for growers and there is limited coverage on crop protection in books or in the trade press. People are simply not prepared to put the money into what they consider a minor industry.

THE WAY FORWARD

It is clear that a coordinated approach to the development of crop protection strategies is required. If progress is to be made, we need contact between different sectors of the industry, we need a comprehensive research programme to underpin our advisory services, we need a consultancy or advisory service tailored to growers needs, and we need a flexible, informed training facility.

CONTACT BETWEEN DIFFERENT SECTORS OF THE INDUSTRY

The Crop Health Centre operates as part of The Scottish Agricultural College and our main aim is to develop crop protection strategies for the nursery industry. The recommendations which we make are increasingly based on cultural and environmental control methods. It is essential for specialists to understand how crops are produced and what practical difficulties are involved

when trying to protect crops. We have found that time spent in conversation with growers is rarely wasted. Every nursery is different. Successful disease and pest control measures must be developed with the nursery and grower in mind. Specialists cannot afford to sit in their labs, they must understand the nursery and they must understand the grower.

Nursery visits, trade-shows, conferences, and growers meetings should be recognised as important opportunities for the exchange of ideas between those involved in different aspects of crop protection.

RESEARCH MUST UNDERPIN ADVISORY AND CONSULTANCY WORK

Research is of the utmost importance if U.K. growers are to remain profitable and competitive within Europe. Advisory and consultancy work frequently gives rise to unanswered questions and a comprehensive research programme is required to support the successful operation of these services. Most growers realise the short-term benefits to be gained from small, near-market trials, and studies. Useful results can be gained quickly with minimum cash outlay from such studies. It is the duty of growers, advisors and research workers to select topics for investigation, to ensure that the trials are properly carried out and to ensure that the results are made available quickly to the industry in a readily understood form.

In many cases, the results obtained from primary trials indicate that there are no simple solutions to a particular problem. The responsibility then falls to larger grower groups and private companies to raise funding for in-depth studies. We must not fail to realise the importance of strategic research in our developing industry. Financial outlay and time spent on research in key production areas will pay great dividends in later years.

A CONSULTANCY AND ADVISORY SERVICE FOR HORTICULTURE

An effective, useful crop health advisory service can best be provided if growers can use it as a one-stop shop. Crop health is dependent on many factors. It is important that specialists in all the main subject areas are located in the one place and that these specialists are in constant contact with each other.

Diagnostic services must be rapid and reliable. At The Crop Health Centre, we have spent much of the past year streamlining our diagnostics lab. A quality assurance manual has been written for all our advisory work along the lines of that required for BS5750. It contains guidelines on procedures and the timescale used for all tests, in an effort to ensure that the grower receives a quality service at all times. Consultants and advisors should be prepared to draw information from a wide range of resources. Recommendations and control measures must be made with the individual grower in mind, which is why specialists must have a knowledge of growing methods and nursery practice. We prefer to build up a relationship with our clients because every nursery is different. The fact that we can draw information from our own research programme and general horticultural backgrounds makes this easier. Advice should be available by fax, phone, and letter. Specialists should be flexible and ready to travel to nurseries at short notice. They should be willing to negotiate and must be able to provide the type of service which is desired.

A COMPREHENSIVE TRAINING SERVICE FOR GROWERS

Training is important for those involved in crop protection at all levels. Those who want to progress in their work are always learning. Growers frequently admit confusion concerning disease and pest identification, current approvals legislation or pesticide safety, cultural and biological control measures, and several other subject areas. In most cases crop protection measures can be better applied if the grower fully understands the nature of the problem.

We need flexible training facilities, with experienced, qualified tutors. Courses must be designed for growers, they must be run where and when required and they must be affordable. Having coordinated several training courses both at our Auchincruive base and on nurseries, our experience is that they are not difficult to run. It is up to growers to say what their training needs are and how they wish them to be fulfilled.

CONCLUSIONS

If progress in development of crop protection strategies is to be made in the U.K., then it is of vital importance that all those involved maintain contact with one another. Growers must speak about their experiences with diseases, pests, and their control. Sales reps, advisors, and research workers must listen and act accordingly. Those involved in teaching and training must keep abreast of new developments. We need to keep in contact, we need quality research, and we need competent advisory and training facilities.

All of these must be addressed if the nursery industry is to move forward, and move forward we **must** if we are to remain competitive into the 21st century.