PART B. COMMON PROBLEMS AND STRATEGIES

Chapter B1. Common problems

PURPOSE OF THIS CHAPTER

To summarise the problems commonly encountered in horticulture.

CHAPTER CONTENTS

- summary of common problems

ASSOCIATED CHAPTERS

- Parts D and E

COMMON PROBLEMS

Erosion control (keeping the soil in place) is the most important practice. After that, other problems may need solving, as they reduce productivity and often contribute to erosion risk.

The ideal soil for farming should supply plants with adequate water, oxygen, nutrients and support. When the soil does not supply these needs there is a soil problem. An example of a soil problem is a crusted surface that reduces infiltration and increases run-off. Less water is stored in the soil for plants to use.

A soil problem may be due to:

- recent management techniques (for example, tillage when the soil is too wet compacts, remoulds and smears the soil)
- a long history of a certain management (for example, continuous cropping for many years may deplete soil organic matter to the point where the surface sets hard when dry)
- a property of the soil itself; the problem may always have been there (for example, if a soil is sodic, it has probably been sodic for a very long time).

Consider the needs of plants, examine the soil, and then deduce the problem. You will then be able to choose a management strategy to deal with the problem. Economics will decide whether the strategy is feasible.

Some common problems

Common soil problems in horticulture are:

- soil salinity
- loss of soil and plant nutrients by erosion
- soil acidity
- declining chemical fertility, particularly nitrogen
- damaged topsoil structure caused by traffic, wet tillage or stock trampling
- plough pan caused by wet tillage
- poor surface structure causing crusting or hard-setting
- compacted subsoil caused by traffic.