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Mechanisation of Nursery Production and Handling Systems®

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INTRODUCTION

I started my career in horticultural machinery as a service engineer but after nine months I was moved into the sales department — either I was a good salesman, or a terrible service engineer. Anyway, very early on in the trade, I had to visit a very reputable nursery in Lincolnshire. When I arrived, the nursery owner was standing working at the potting machine I was to repair. He was filling 9-cm liner pots and placing them into a tray, which he then placed on a free-standing piece of powered conveyor — the tray of pots travelled just 5 m down the conveyor to a man who took the trays off the conveyor and placed them onto a trailer.

I asked the grower why he was bothering with the conveyor — why not just carry the trays? He took great delight in telling me that he had done his sums and worked out that the conveyor saved him about 100 miles of walking every year. When I got home I did the sums for myself. Assuming the trays held 15 pots each, and the walk to the trailer was 5 m and then 5 m back to the potting machine, you would have walked 100 miles by the time you had potted 240,000 plants.

I learned a lot from that experience, as my understanding of mechanisation up to that point related to mass production of small parts on milling machines and lathes (everything being contained within the machine that was doing the work). Whereas, as we all know in the horticultural trade, to produce a potted plant and make it ready for sale involves a lot more variables than producing a machined part in a lathe. The distance that you have to travel with a tray of plants, and the work to grow them and get them out of the door, is huge.

I have met other growers who have actually counted how many times a plant is handled from where it is potted to where it is dispatched on the lorry — without some sort of machinery to help, it can be as many as 28 times per plant.

Mechanisation on a nursery involves much more than just machines and conveyors; it can also be applied in a very basic form to things such as positioning of doors for easier access of trailers and trolleys, the laying of paths and concrete standings to allow greater accessibility to all the working areas, and the careful organisation of staff.

It also applies to other areas, such as compost supply, which can be efficiently streamlined if thought out correctly.

MAIN BENEFITS OF MECHANISATION

Reduced Labour Costs. Careful application of equipment allows you to reduce the number of part-time staff and, in turn, make better use of full-time staff.

Improved Output and Focus. Much higher output within a given time-frame helps you to plan your work with greater efficiency.