

Krause, W. 1975. Three acres ideal for highest labour efficiency. *The Grower*. 83(24):1194.

Over the last 15 years, the number of greenhouses growing vegetables in Holland dropped from 15,000 to 10,000. A few thousand places changed over to flowers, but a considerable number have gone out of the industry. With this level of bankruptcy, there would not seem to be much encouragement for investment. But, average investment in the Westland has increased from \$42,000 per greenhouse to \$148,000. Why? Because most growers are acutely aware that without increased capital investment the bankruptcy rate would have been a good deal higher. During the same period, the Dutch glasshouse acreage rose from 12,375 acres in 1960 to nearly 20,000 acres in 1975.

The Dutch horticultural industry has the distinction of the highest labor costs in Europe, which is the reason why almost all new developments in the Dutch industry are judged by labor savings or productivity.

During the past 15 years, productivity per man hour has increased enormously. For example, the late planted, heated tomato crop has been increased from about 24 pounds of tomatoes per man hour to 60 pounds, largely through greater capital investment. There are still great variations in yield. In the case of the February planted, end of July cleared crop, one grower may get 50 tons per acre and his neighbor 70 tons or more. The total costs show great variation, from \$67,000 per acre for a heated flower nursery to


perhaps only \$11,000 for an older unheated glasshouse vegetable nursery. The average Westland nursery has a total cost of about \$42,000 per acre per year. The most important cost categories are labor (30 percent), interest and depreciation (25 percent), heating (20 percent) and other costs (25 percent) (1974 figures).

Research has shown that the highest labor efficiency may be achieved on a 3-acre nursery. There is a steady improvement in labor efficiency from 1 1/4 acres to 3 acres, then falling off again because of difficulties in organization. One economist's argument is that if two or three growers with total holdings of less than 3 acres combine their activities, they may achieve upwards to a 10 percent savings of the total costs.

One thing critics of international trading forget is that only by international trading can the manufacturers and seed trade find the huge investments necessary for the developments required by the home industry. It cuts both ways in industry and research. Where would the Dutch hybrid sprouts be today without the big outlets for seed in Britain and Germany? Where would the British cucumber and lettuce industry be without access to Dutch seed and techniques? Where would the Continental fruits growers be without East Malling rootstocks? Where would the British bulb industry be without access to the work at Lisse research station? International trade must inevitably lead to international cooperation. As with any other developments, the ones who are first in the field to take them up and use them are likely to benefit most.

(Exchange rate: 1 British pound = \$2.32 U.S.)

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