

The Seven-month Cyclamen*

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Several attempts have been made to put the cyclamen on a more competitive basis with other pot plants by shortening its production period. But nowhere have I seen this done as successfully as I did recently at the Horticultural Centre at Loughgall, Northern Ireland.

There the deputy director, Mr. A. A. Frost, has been experimenting with the crop to find a suitable alternative for lettuce or chrysanthemums to fill the houses from September till Christmas, following tomatoes. The technique he has evolved over the past two years makes it possible to produce a first rate plant in seven or eight months with a substantial saving in labour and production costs, particularly during the summer months. The success of his methods may be gauged by the fact that Dutch cyclamen growers have been visiting Loughgall to find out how it is done.

Two essential factors

Two factors are essential for short cropping, Mr. Frost has found. One is to achieve rapid and even germination and the other is to avoid all root disturbance particularly during the early stages of the crop. Dutch seed of the Maarse strain of such standard varieties as Rose and Perle Zehlendorf, Rose of Aalsmeer, Sylphide, Giant White and *Salmonium Oculatum* was used. Last year, in a preliminary trial, seeds sown on moist peat and moist vermiculite to the peat they germinated. This led to the peat and no germination at all on the vermiculite. The light intensity of the vermiculite surface prohibited germination because when the seeds were removed from the vermiculite to the peat they germinated. This led to the conclusion that the seed must be germinated in darkness.

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But since germination was erratic on the peat surface the presence of an inhibitor on the seedcoat was sus-

pected. Washing the seeds before sowing in dilute acids and alkalis gave no better results than washing with plain water. The seeds are now pre-treated by washing them under a strong jet of water for 20 minutes in a wire gauze lined funnel. Although it accelerated germination and increased the total germination percentage more work is needed to determine how necessary the washing process is.

The washed seeds are pre-germinated in a homemade hot box which can be maintained accurately at 72 to 74 deg. F. They are pressed into the surface of a layer of moist peat and the seeds can be almost touching each other. Germinated seeds are taken out of the cabinet and sown as soon as they have radicles of $\frac{1}{8}$ to $\frac{1}{4}$ in. long.

A typical germination result in the hot box may look as follows: of 225 washed seeds put into the cabinet on January 10, 80 germinated on January 21, 80 on January 24 and 42 on January 28, giving a total germination percentage of 86 per cent.

One factor which is of extreme importance, Mr. Frost says, is a complete absence of root disturbance during the life of the plant. To achieve this pre-germinated seeds are sown $\frac{3}{8}$ in. deep in the compartments of a seedbox segmented by the Bloxer system. Developed in the Vale of Evesham, the Bloxer system for this purpose divides the compost in the seedbox into 40 blocks separated by vertical strips of polythene.

Flowering delayed

The boxes are maintained at 65 deg. F. until the seedlings appear after which they are kept at 60 deg. F. The plants are transferred to $4\frac{1}{4}$ in. plastic pots when they are at the seven to nine leaf stage. At this point the corm is about the size of a pea and the root system has developed enough to hold the soil block together. The compost used for potting consists of three parts J.I.P.2 and one part peat. Peat pots have been tried for propagation but the compressed peat made it difficult for the roots to penetrate and flowering was delayed by as much as three weeks.

An example of a typical timing schedule is: preparation for germination—March 12, pre-germination completed and seed sown—March 28, seedlings emerge—April 4 to 15, plants potted—July 15, first plants sold—October 15.