CYCLAMEN SEED TREATMENT[1]

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Earlier reports (1, 3) indicated that cyclamen seed germination was improved when seed was soaked in water for 12 hours followed by a 20 second to one minute dip in 0.5% sodium hypochlorite (bleach such as Purex, Hilex or Chlorox) immediately prior to sowing. These recommendations were based on germination in paper toweling (in vitro) and the resultant seedlings were discarded rather than grown to maturity. The water soak (imbibition) sometimes advanced visible signs of germination. The sodium hypochlorite dip served to disinfest the seed surface of fungi and bacteria which could hinder subsequent development of the emerging seedlings. Seed of some cultivars responded favorably while germination of others was not altered.

More recent studies at the University of Minnesota explored the practicability of such treatments when seed was sown in a conventional manner in nutrient-enriched moss peat. The resultant seedlings were then grown to maturity to determine whether flowering time, plant size or any other characteristics were affected.

Soaking the seed in water for 12 hours did advance visible germination up to a week with some cultivars. Soaking the seeds also made them "sticky" and harder to manage than dry seed when sowing. Flowering time and plant growth in other respects was similar for plants from treated and untreated seed. Thus, time savings originally gained in quicker germination were no longer apparent at crop maturity.

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Seed of some cultivars was slower to germinate when dipped in sodium hypochlorite and sown in nutrient-enriched moss peat. This detrimental effect of the seed disinfestation treatment was probably caused by the residual sodium hypochlorite remaining on the seed coat.

Neither individual treatment nor a combination of the two was significantly beneficial when the seedlings were grown on to maturity. In fact, the treatments were detrimental in a few instances. Therefore, we do not recommend any cyclamen seed treatment prior to sowing.

We do recommend selecting good, early blooming cultivars, using fresh seed from reliable sources and providing proper germinating conditions (2).

References:

1. Anderson, R.G. and R.E. Widmer. 1975. Improving vigor expression of cyclamen seed germination with surface disinfestation and gibberellin treatments. J. Amer. Soc. Hort. Sci. 100:597-601.

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3. Widmer, R.E., R.E. Lyons and M.C. Stuart. 1979. Minnesota fast crop cyclamen -- 1979. Minn. State Flor. Bull., Feb. 1:6-11.