

OVER-WINTERING EVERGREENS UNDER POLY IN NORTHERN CLIMATES

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Our firm, having been one of the first to attempt winter storage under northern conditions, and presently storing probably more plants than any other firm in the north, I feel that it might be enlightening to relate our experiences for whatever they may be worth. I feel it is an operation we cannot ignore.

First, may I outline the basic reasons for wanting to store evergreens over winter. First, in our location in west central lower Michigan, it is not uncommon for our spring digging season to begin around April 1st. Being a company that sells to the trade as far south as Kansas City, St. Louis, etc., we must be in a position to deliver when their selling season begins. Second, with a steady increase in retail competition, our customers require a plant in full color, free of all winter discoloration. Poly storage is one of the best ways I know to preserve good winter color. Third, is the fact that in our area common labor is more readily available in the fall than in the early spring.

These three reasons led us in 1960 to erect three non-heated glass Greenhouses (30' x 150'). That fall we were able to store 12,000 evergreens, mostly taxus, juniper, arborvitae, ilex and spruce. These were of various sizes, ranging from 9-12" to 2-3", dug and potted in September and stored in the greenhouses about November 1st.

Our first season's experience was so encouraging with the exception of ilex, that we immediately wanted to expand this project. After studying the cost of glass, we were aware that more glass was impractical. After pricing from several companies, we decided on 5 Trox houses (23 x 178') at a cost of approximately 50c per sq. ft. This looked good in comparison to \$2.00 for glass.

Again the following spring our results were encouraging, with the exception of ilex. When comparing the results in the greenhouses and in the Poly Trox houses, we felt that the plants under poly seemed to show less dehydration than those under glass.

This began an even more intense study of structures. We came up with our own design of 1" pipe 16' x 100' and later redesigned to 18' x 100'. These we built for about 35c per ft., including irrigation. Since, we have erected about 60 of these structures. Each year, we have watched our operation closely, and at this time can draw some of the following observations for successful storage. Keep in mind, we are speaking of west central Michigan.

1. Select for storage plants that are of good quality and vitality. Storage will not make a poor plant look sharp.

2. Dig as early in fall as possible to enable the plant to overcome shock before severe cold weather sets in; I prefer from September 20th to October 10th. However, in the case of ilex, I prefer no later than September 15th.

3. Draw poly over houses about November 1st. Late coverage can result in dehydration of the plants.

4. Keep well watered on days when the soil in containers is not frozen. Ventilate well while watering, so that the plants will not freeze while covered with water.

5. Any time during storage, houses should be ventilated whenever excessive heat builds up due to sunshine. Otherwise, keep as air-tight as possible.

My comments so far may sound as if we have no problems. I must emphasize that whenever the 5 points I outlined were followed, our success was excellent. Our firm is probably no different from hundreds of others, and when something looks promising we have a tendency to stretch our luck. Sometimes we dig too late in the season, and at times we have left some houses uncovered too late. These were the instances where we experienced the most damage. I also mentioned earlier that ilex did not store well. However, when dug in late August, or early September and plunged into sawdust, results were excellent. They will not winter setting on top of the ground.

Most all of the evergreens we have stored were field-potted either with the Jiffy Balling machine or by hand. Though we did store some B & B, but found it very difficult to keep the ball wet unless plunged into some sort of mulch. Therefore, our experience was much more successful with potted plants than B & B.

MODERATOR HESS: Our next topic is one in which many people are very interested. The "Cold Storage of Softwood Azalea Cuttings" will be discussed by Andrew Adams, Jr.

"COLD STORAGE OF SOFTWOOD AZALEA CUTTINGS"

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Back in the middle of June 1964, while trimming our azaleas for the last time of the season, one of our men mentioned what a shame to throw away all those good cuttings. They were really too soft to stick and we still had lining out to do and just did not have the benches ready nor the time to stick cuttings. Azalea cuttings are normally ready here in Central Maryland anytime after the 4th of July, depending of course on the season.

We have a cold storage room 8' x 7' x 50', built of concrete block with one 5-ton refrigerator unit and two circulating