

## **Effect of refrigeration ( 3-5<sup>c</sup> ) on flowering of *Lilium ledebourii***

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*Lilium ledebourii* is native of Ammarloo area of Gilan province and Lankaran area of the Republic of Azarbayejan. Many species of *Lilium* the in world need cold for flowering and according to growth area of *Lilium ledebourii* suggested that main reason for flowering is cold. Thus two bulbs were transported to Lahijan Station November in 1998 and then bulbs were stored for 0,4,6,8,10,12,14 and 16 weeks at 3-5<sup>c</sup> (in refrigerator). The times above 7 bulbs were took and 3 bulb in greenhouse and 4 bulbs in outdoor were cultivated. The time of shoot emergence, number of flower bud, plant height, normal and anormal of flowering were calculated.

The results of this early investigation showed that bulbs were not chilling therefore they can not from flower bud or flowering and their height was very short. In different of cold treatments, plant height was short and suggested that main reason was low light intensity and shortday length. In greenhouse the best cold period got in 6 weeks, of course 4 and 8 weeks periods also were well affected on plants and flower buds were normaly bloomed.

In outdoor investigation the best cold periods were 4 and 6 weeks and plants height were more than plant height in greenhouse and blooming of flower buds were quite normal, of course some physiological disorders observed on petals and stem curvature. The results showed that bulb diameter were affected both on flowering and number of flower buds on plant and with bulb diameter increase, number of flower buds also increase on flower stem.