



## **EFFECTO DE LA ESTRATIFICACIÓN DE SEMILLAS DE *Leucocoryne Ixioides*, *L. Coquimbensis*, *L. Purpurea* Y DE DISTINTAS TÉCNICAS DE PROPAGACIÓN VEGETATIVA EN *Leucocoryne Ixioides*.**

**Ramón Emilio Salazar Miranda**  
**Ingeniero Agrónomo**

### **RESUMEN**

El género *Leucocoryne* posee varias especies que forman parte de la gran diversidad de plantas geófitas que existen en Chile. Las especies de este género muestran gran potencial como plantas ornamentales y flor de corte, lo que ha despertado el interés para su explotación comercial. Por esta razón se hace necesario iniciar estudios de domesticación de la especie a través de la investigación de la propagación por semillas y en forma vegetativa.

Con el propósito de conocer la respuesta germinativa de semillas de *Leucocoryne ixioides*, *L. coquimbensis* y *L. purpurea*, se evaluaron diferentes períodos de estratificación (1, 2, 3 y 4 semanas), a 5-8°C más un testigo sin estratificar.

En *Leucocoryne ixioides*, el mayor porcentaje de germinación correspondió al tratamiento de 4 semanas de frío, el cual obtuvo un 64% de germinación. Producto del bajo porcentaje de germinación obtenido, se realizó un segundo experimento en el cual se extendió el periodo de estratificación a 5, 6 y 7 semanas, en donde aumentaron los porcentajes de germinación, siendo superior a 90% en los tres tratamientos aplicados y sin diferencias significativas entre ellos.

Los días requeridos para la germinación de las semillas de *Leucocoryne ixioides* disminuyeron al extender el periodo de frío, tal es el caso del tratamiento de 7 semanas de frío, el cual sólo requirió 11 días para la germinación de las semillas.

Como consecuencia del análisis y la discusión de los resultados obtenidos, se sugiere que en futuros ensayos los bulbos luego de realizados los cortes sean

dispuestos por algún tiempo en contenedores con un sustrato húmedo que proporcione una buena aireación, para luego ser trasplantados a tierra.

## ABSTRACT

The genus *Leucocoryne* includes several species that are part of the great diversity of the Chilean geophyte plants. The species of this genus shows great potential as ornamental plants and as cut flowers, which has promoted the interest for their commercial exploitation. For this reason it becomes necessary to begin studies of domestication of the species doing research on both seed and vegetative propagation.

With the aim of knowing the germinative response of seeds of *Leucocoryne ixioides*, *L. coquimbensis* and *L. purpurea*, different periods of stratification at 5-8°C were evaluated (1, 2, 3 and 4 weeks), plus a witness without stratification.

In *Leucocoryne ixioides*, the highest germination percentage corresponded to the 4 weeks stratification treatment, reaching a 64% germination. Due to the low germination percentage obtained, it was carried out a second experiment in which the period of stratification was extended to 5, 6, and 7 weeks. The germination percentages increased being higher than 90% in the three treatments and without significant differences among them.

The time required for the germination of the *Leucocoryne ixioides* seed was reduced when the cold period was extended, with 7 weeks of cold treatment, germination occurred 11 days in.

In *Leucocoryne coquimbensis* the highest germination percentage was 94.6%, obtained under 4 weeks of stratification, which required in average 27 days for the germination of the seeds.

In *Leucocoryne purpurea* the cold treatment that reached the highest germination percentage was 3 weeks of stratification, with 96% of germinated seeds, being also the treatment that required the smallest germination time (27 days).

In the vegetative propagation of *Leucocoryne ixioides* the effect of different propagation methods was studied, such as ;chipping in halves and intact bulbs in bulbs caliper 2/3, and the techniques of "scooping", "scoring" and intact bulbs in bulbs caliper 3/4. The multiplication rates were calculated.

In the first propagation experiment, when comparing the chipping method with intact bulbs (uncut), the multiplication rates were 0.94 and 0.84 respectively, in other words none of the methods generated a new bulb from the mother bulb.

In the second experiment carried out to compare the "scooping" methods, "scoring" and the intact bulbs, the multiplication rates were 0.7, 0.2 and 1.1 respectively, so, the only treatment that was able to generate a bulb from a mother bulb was the control treatment (intact bulbs), and the bulbification level achieved by the other two treatments was very low.

In both vegetative propagation experiments the statistical analyses determined that significant differences did not exist among the treatments evaluated through the bulb multiplication rates. The low multiplication rates reached by the treatments of both experiments, could be attributed to the medium used in the experiment (compost and sand, 2:1), which could have had inadequate aeration.

As a consequence of the analysis and the discussion of the results, it is suggested that in future trials the bulbs after cuttage should be put temporarily in containers with a wet and well airated substrate, before being transplanted into soil.