

## SUMMARY

### **Profitability of the cultivation of *Solidago canadensis* L., in greenhouse, municipality of Rafael Delgado, Ver.**

Goldenrod (*Solidago canadensis* L.) is an inflorescence cultivated as a cut flower in various countries of the world and used mostly as a companion in flower compositions and bouquets; but it has been such a success that it is considered internationally as the golden axis of a bouquet of flowers (floral composition), which has contributed to the expansion of its cultivation, not only in its native Canada but also throughout Latin America and European countries. In the municipality of Rafael Delgado Ver., it is a relatively new crop that is expanding due to its easy production, high adaptability to its agroecological conditions and the great demand of local markets. The sustainable cultivation of this plant represents an alternative to productive development for this municipality that currently presents serious economic problems. The present work had the purpose to demonstrate that the production costs can be lowered and the profitability of the product increased, using a cultivation method with different exposures to artificial light compared with the used ones in this municipality. To carry out the objective, two different cropping methods were compared (macro-tunnel and open field) as well as two different types of artificial light exposure: light interrupted (five minutes on-ten minutes off) and continuous light, and without exposure to artificial light. The experimental design consisted of six treatments divided into two blocks. A financial run was carried out to know the profitability of both methods, as well as a bifactorial statistical analysis to know which method was more efficient. The equilibrium point was reached in the second cycle of the first year, being the highest point for open cultivation; contrary to macro-tunnel production, which begins to rise in utility and exceeds total costs in the sixth cycle. The study showed that in the long term, macro-tunnel production and exposure to sporadic artificial light is more convenient.

Key words: *Solidago canadensis*, macro-tunnel, artificial light.