

A POSSIBILITY TO UNIFORM *Lotus tenuis* FLOWERING  
WITH GROWTH REGULATORS

Giménez, Daniel O., Rumi, Clara P. and Olga Peluso

Instituto de Fisiología Vegetal "E.M. Sívori", Facultad de  
Agronomía, U.N.L.P., C.C. 31, ( 1900 ) La Plata, Argentina.

Assays have been performed to analyze dynamics of flowering - fruit process in *Lotus tenuis* and the possibility to uniform them by growth regulators. Seeds of San Genaro population were sown in soil in 2 l - pots. In a first experience, plants were kept under semi-controlled conditions, first at short-days ( SD ) under environmental temperature from 09:00 to 17:00 h ( 8 h of solar radiation ). They were carried daily to climatized chambers in two groups, at 17° and at 21°C ( night temperature ) from 17:00 to 09:00 h for two months. Without altering night T°, plants were afterwards exposed to long-days ( LD ). After a month random groups were selected to begin growth regulator treatments. Two sprayings in water solution were applied. Gibberellic acid ( GA<sub>3</sub> ) was sprayed at 50 ppm, triiodo-benzoic acid ( TIBA ) at 10 ppm, Ethrel at 100 ppm, and Cycocel ( CCC ) at 2000 ppm, without altering temperature and photoperiod. Observations began 15 and 35 days after the last spraying. The number of branches longer than 5 cm and than 25 cm was determined together with the number and stage of flowers and fruits. Another experience was carried out in the field, in pots and with similar regulator sprayings, except GA<sub>3</sub> which was applied earlier and lasted longer. SADH ( B<sub>9</sub> ) was added at 2000 ppm. The observations continued until fruit dehiscence. The results of these experiences show that night temperature, 17°C, favours

flowering onset. GA<sub>3</sub> stops flowering and favours branching from non-basal lateral buds. In branches smaller than 25 cm there was a significant number of inflorescences under growth retardants, TIBA and Ethrel applications. The other treatments varied according to the different environmental conditions.

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