

عنوان مقاله:

Growth of Lily Bulblets In Vitro, a Review

محل انتشار:

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خلاصه مقاله:

In micropropagation of lily, preferably bulblets should be produced: Because bulblets are compact and robust, they are much easier to handle and to plant in soil than shoots. In this review, the various factors that determine bulblet growth in vitro are discussed. Gibberellins, jasmonates (JA) and abscisic acid (ABA) are the major identified plant growth regulators (PGRs) for storage organ formation. They also play a major role in lily bulblet growth in vitro. Growth conditions such as temperature and light (quantity and quality) strongly affect lily bulblet growth in tissue culture. Moderate abiotic stresses are introduced as new tool to improve storage organ formation in vitro. The amounts of endogenous carbohydrates (starch) in the explant and exogenous carbohydrates in the medium (sucrose) influence bulblet growth in vitro. It is also discussed how compounds present in the medium or in the scale-explants are translocated to the regenerating bulblet.

کلمات کلیدی:

Lily, in vitro, Bulblet growth, Scale explant, plant growth regulators, Medium components

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