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Effect of PGRs on organogenesis among clones of *Hippophae rhamonides* in *in vitro* culture

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Abstract

Seabuckthorn (*Hippophae rhamnoides*), a member of Elaeagnaceae, is gaining popularity at home and abroad ever since its beneficial effects were introduced. Sea buckthorn fixes nitrogen through symbiosis with the aid of root nodule bacteria and therefore it is a highly recommended plant species for combating desertification. In developing countries, sea buckthorn is being planted as a major species that vitalizes the regional economy with its fruit and leaves. Therefore, in this study, as an effort to secure useful genetic resources and mass production through establishing in vitro mass propagation system from seeds of Mongolia(M), China(C), and Russia(R). Seed germination began after two weeks of culturing in medium under *in vitro condition*. The experiment using commercial sugar and sucrose showed no significant difference in germination rate, thus reducing the financial cost of tissue culture to enable the necessary physiological studies. In organ differentiation, the process was more efficient in matured leaf than cotyledon, and also the addition of 1.0 mg/L BA, 1.0 mg/L Kin, 5.0 mg/L IAA confirmed that shoot induction frequency was also higher than other treatment. In case of tissue culture, M-1 and M-2 were more efficient, but C and R seed source's vitality dropped in some specimens. Adventitious bud was started in the center of leaf cell through GMA section. Sea buckthorn’ s roots were induced only in few samples, but in general, could not be initiated properly

Biography

Songhee Lee is enrolled in a ph. D. course about combating desertification associated in biotechnology at Dongguk University, Seoul, Korea. And She has studied about biotechnology and plant molecular genetics since master’s course. She has participated in 5 projects and published 5 papers in reputed journal in Korea and present more than 33 posters