Development of technology for the evaluation and cultivation of medicinal plant Ravoch (*Rheum L*) growing in Karakalpakstan

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Abstract: Medicinal plants are valuable sources of herbal products, and they are disappearing at a high speed. The higher market demand and the shortage of wild resources enforce us to carry out cultivation practices. Researchers have recently placed high hopes on the artificial cultivation methods for medicinal plant production, which can solve the problems for conservation of medicinal plants from wild collection.

The study was carried out in the arid and semiarid land where increase in commercial demands for medicinal plant naturally growing Western Uzbekistan. This study evaluated *Rheum tataricum L.* medicinal plant with different production methods including cultivation with seed and root propagation, and wild collection to guide medicine plant production for sustainable utilization of plant resources. As a result of surveys, the 10 samples of the *Rheum tataricum L.* medicinal plant wild species were collected at 4 different locations of the Usturt Plateau. Cultivation experiment was conducted on the basis of randomized complete block design with three replications at experimental field of the Nukus Agriculture Institute. Seed germination and morphological traits of cultivation experiments were determined at the vegetative stage. Results indicated that using phytohormon and chemical fertilizer significantly improved effective root propagation. However, seed germination had more negative effects than root propagation. In general, it was concluded that integrated treatments for root propagation have more beneficial effects on the vegetative propagation of *Rheum tataricum L.*

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