

Effect of temperature on seed germination behaviour in Asalio (*Lepidium sativum* Linn.) and Safed Musli (*Chlorophytum borivilianum*)

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ABSTRACT : Asalio (*Lepidium sativum* Linn.) and safed musli (*Chlorophytum borivilianum*) are economically important medicinal plants. Asalio is used in the treatment of asthma, diabetes, local and rheumatic pain, while, safed musli is known for aphrodisiac and immunomodulatory properties. Asalio is a seed propagated crop and is being introduced into cultivation, while, safed musli is cultivated vegetatively. In safed musli, cultivation through seeds can reduce the cost of cultivation significantly, but seed germination is the major problem. Cultivation of medicinal plants should be done according to good agriculture practices, which adhere to the use of quality seeds and planting material. Seed quality is determined by seed standards and seed testing protocols reflecting seed germination potential. In the present study, germination of asalio variety 'Anand Asalio 1' and safed musli germplasm was carried under controlled conditions at an interval of every '5°C' from '20°C to 40°C' with 16 h light and 8 h dark regime. In asalio, more than 90% germination was recorded at temperature ranging from 20°C to 30°C, but 20°C was found to be the best temperature with respect to the maximum germination percentage, germination energy and mean daily germination. Germination reduced drastically at temperature above 30°C. In safed musli, seeds exhibited the maximum germination at 25°C. Germination reduced significantly at temperature above and below 25°C. In asalio, first count was observed on day 2 irrespective of the temperature, while, in safed musli, first count varied with temperature and was day 5 at 25°C.

Key Words : Asalio, Safed musli, germination, temperature, seed quality.