Effect of pre-sprouting and harvesting date on yield and some agronomical characteristics of three potato cultivars

Introduction: Pre-sprouting is a common practice in potato production. It involves spraying potato tubers with water before planting. This process is known to improve the germination rate and initial growth of the plants. However, the effect of this practice on yield and agronomical characteristics is not always clear.

Materials and Methods: The experiment was conducted at the University of Agriculture, Samia, Iran. Three potato cultivars were used: 'Russet Burbank', 'Atlantic', and 'Désirée'. The tubers were pre-sprouted with different water treatments and harvested at different times. The yield and agronomical characteristics were measured and analyzed.

Results: The results showed that pre-sprouting had a significant effect on yield and some agronomical characteristics. The highest yield was obtained from pre-sprouted 'Russet Burbank'. The effect of pre-sprouting was more pronounced in the early harvests.

Conclusion: Pre-sprouting is an effective method to improve the yield and agronomical characteristics of potato. However, the optimal pre-sprouting conditions need to be determined for each cultivar to ensure the best results.

Keywords: Potatoes, pre-sprouting, yield, agronomical characteristics.