

Thermodynamics and kinetics of germination of seeds of white lupine

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Keywords: lupine, flax, humic acid, enthalpy, entropy.

Abstract

Research has been carried out into the growth dynamics and the development of white lupine seeds at the initial stages of germination in pre-treatment of seeds by physiologically active substances. Seed treatment was performed by extracts from humidified flax, which contained 1-2% humic and fulvic acids. Germination was performed at temperatures of 12 and 22 °C. It is established that the dynamics of the seedlings at 12 °C with the use of extracts is not inferior to the development of seedlings at 22 °C without treatment. The kinetics of growth and development of seedlings is characterized by effective growth rate constants and thermodynamic values.