

❖ **CLIMATE CHANGE AND FOOD SAFETY: EFFECTS OF CLIMATE CHANGE ON FOOD SAFETY
ACROSS FOOD SYSTEMS**

Phenology of the native species Fetească Neagră in Moldova under the background of climate change

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Abstract

Climate change is one of the main challenges facing agricultural production, especially in the context of global temperature rise, some extreme weather (frost, drought and other disasters) will cause serious damage to agricultural production. Viticulture and winemaking are important industries in the Republic of Moldova, contributing significantly to the country's society and economy. Wine grapes are particularly sensitive to climate change because climate affects the character and quality of wine through changes in grape composition. The viticulture industry in Moldova also faces major challenges under conditions of climate change, where the adaptation of vines to climate change is of particular interest. The vines adapt to new climatic conditions through changes in phenological phases. In the Republic of Moldova, the distribution of vineyards is characterized by a high degree of dispersion, variability in topography and landforms, and diversity in climatic conditions.

This study observes the phenological phases of the local variety FN in three geographically protected production areas of Moldova in the last four years (2019-2022), and analyzes the main climate indicators such as temperature and rainfall and the multi-year averages to show that the grapevines are under short-term climate change conditions. Changes in phenological periods. The purpose of the study is expected to provide a reference for viticultural practices in Moldova and to mitigate the impact of climate change on viticulture.