

## **Development of an Economic and Mathematical Model, Analysis and Transformation of the Hops Market in the Russian Federation in the Medium Term\***

Maria L. TOLSTOVA<sup>1</sup> and Alexandra E. KORNILOVA<sup>2</sup>

<sup>1</sup>Department of Financial Law, Chuvash State University named after I.N. Ulyanov,  
Cheboksary, Russian Federation

<sup>2</sup>Department of Civil Law Disciplines, Chuvash State University named  
after I.N. Ulyanov, Cheboksary, Russian Federation

Correspondence should be addressed to: Maria L. TOLSTOVA, [maryaleon@yandex.ru](mailto:maryaleon@yandex.ru)

\* Presented at the 45<sup>th</sup> IBIMA International Conference, 25-26 June 2025, Cordoba, Spain

### **Abstract**

The article examines the state of hop production in the Russian Federation in connection with state regulation of the agricultural sector. Based on retrospective data and production factors, a mathematical and economic model of hop production development for the medium term is constructed. It is shown that within the framework of the model, at least a twofold increase in hop production is expected in the next 5 years with a high degree of reliability. Factors contributing to sustainable growth are analyzed and mechanisms for its intensification are given.

**Keywords:** hop growing, mathematical model, regression, timeseries analysis, gross production.