

**EFFECTS OF TEMPERATURES AND RAINFALLS ON  
POTATO (*Solanum tuberosum* L.) PRODUCTIVITY  
IN INDONESIA AND HUNGARY**

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**ABSTRACT**

Potato is one of the subtropical horticultural crops that are widely cultivated in the highlands and mountains in Indonesia. Hungary is one of the countries with subtropical climate that produced potatoes. Wonosobo, Bandung, Karo, and South Minahasa are several regions in Indonesia that are famous for their potato production. This study aimed to compare the effect of temperatures and rainfalls on potato productivity in Indonesia and Hungary. This study used inferential statistical methods with two variables, they are the dependent variable and independent variable. The dependent variable used was potato productivity data in Indonesia and Hungary, while the independent variable used were temperatures and rainfalls. The data in this study was analyzed using correlation analysis. Based on the results of the correlation analysis, it was known that temperatures had positive correlation on potato productivity in Karo but had a negative correlation on potato productivity in Wonosobo, Bandung, South Minahasa, and Hungary. Later, it was discovered that rainfalls had positive correlation on potato productivity in Karo and Bandung but had negative correlation on potato productivity in Wonosobo, South Minahasa, and Hungary. However, neither temperatures nor rainfalls, had a significant effect on potato productivity in Indonesia and Hungary. This could be caused by the use of varieties that have high productivity and have low sensitivity to temperature and rainfall fluctuation.

**Keywords: Potatoes, Indonesia, Hungary, Temperatures, Rainfalls.**