

# Assessment of the frost resistance of several dozen vine cultivars grown in the Western Pomeranian region



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In recent years, viticulture and winemaking have been gaining in popularity in Poland, also in terms of their commercial use. As a result, new hybrid vine cultivars have appeared, adapted to the cultivation in cooler regions, as well as enotourism, which consists of tours of vineyards, wine cellars, and participation in vintage and wine tasting.

The viticulture of the Western Pomeranian Province dates back to the 13th century. At that time, vineyards were located around the area of the Pomeranian Dukes' Castle in Szczecin, Schwerin, Gustrow and Stargard. Vine plants were grown until the beginning of the 20th century in Połczyn-Zdrój and Szczecin, as confirmed by old photographs showing vineyards located on the hill, formerly known as the Wine Hill (Weinberg).



Vineyards in Mierzęcín and Rattey (Germany)



Major parts of the Western Pomeranian Province and Mecklenburg-Western Pomerania are located in the 7A zone of plant resistance to frost, according to Heinze and Schreiber (1984). In recent years, small vine plantations have been established in the federal state of Mecklenburg-Western Pomerania in Rattey, Loddin, Burg Stargard. Cooperation with Prof. G. Flick, from the Higher School in Neubrandenburg, resulted in obtaining the funds from INTERREG IVA funding programme for the establishment of the training base.



Plants damaged by winter frost and spring frosts



**Rootstocks**  
 S04, 5BB, 125AA, 161-49, Borner, SORI

## List of varieties evaluated

'Cabernet Cortis', 'Monarch', 'Solaris', 'Johanniter', 'Gewuerztraminer', 'NY Muscat', 'Muscaris', 'Bianca', 'Aurora', 'Angela', 'Poeloeskei Muskataly', 'Konigin der Weinberge', 'Rusalka', 'Moritz', 'Kiszmisz Mołdawski', 'Kiszmisz Łuczistyj', 'Heike', 'Stefanie', Iza Zaliwska', 'Nero', 'Agat Doński', 'Galanth', 'Esther', 'Anja', B-V, 'Muscat Bleu', 'Garant', 'Muscat Odeski', 'Dornfelder', 'Gołubok', 'Cabernet', Mitoś, 'Cabernet Dorsa', 'Cabernet Carbon', 'Bolero', 'Saint Laurent' oraz 'Acolon'.



## Pomology Research Station Vineyard in Ostoja

The research indicated that the cultivars derived from the *Vitis vinifera* grapevine are not suitable for cultivation in our region due to frost damage. It was determined that during the winters (2010/2011 and 2011/2012), the majority of cultivars experienced frost damage to their ground parts. As regards the hybrid cultivars, the least damaged were the plants of the following cultivars: Regent, Johanniter, Gewuerztraminer, Muscaris, Solaris, Bianca or Aurora.



Plants cut after the winter frost damages