

## ABSTRACT

In recent years, Poland has noticed a significant interest increase in highbush blueberry cultivation. Most of the fruits are exported, mainly to western Europe, while some to countries of the Far East. It all makes that the consumers are looking for high quality fruit.

The aim of these series of tests was to determine the effect of cultivation on growth, yielding and fruit quality of highbush blueberry (*Vaccinium corymbosum* L.). The research is to become an answer to the questions of the producers on how to improve fruit quality. It is either important to define the possibility of its maintenance by identifying the technologies usage of calcium fertilizers in order to determine the proper doses of acidifying fertilizer, finally fruits preparation and storage. The experiments were conducted on a farm specializing in the cultivation of highbush blueberry. Quality analysis of fruit were carried out in the Horticulture Department of West Pomeranian University of Technology in Szczecin.

Highbush blueberry fruits are species which cultivation in ecological standards enables the harvesting of fruits, which may match or exceed the quality of the conventional cultivation fruits. However, the most important is the choice of an appropriate position for these species.

Foliar fertilizers calcium, especially preparation of Folanx Ca29, affects the increase of highbush blueberries firmness and their higher mechanical resistance. It is either important for maintaining fruits' high firmness is their initial shocking chilling immediately after harvest and cold storage in the KA. Storing fruits in the cold KA, preceded by their shock cooling resulted in the least loss of weight, polyphenolic compounds and L-ascorbic acid. Calcium fertilizer Lebosol Calcium Forte contributed to obtain bigger fruits. Fruit size was dependent not only on the choice of cultivars, but also on the type of calcium fertilizer used and the dose of urea phosphate. Urea phosphate, in addition to the acidifying effects on the substrate, especially at a dose of 60 kilograms of nitrogen per hectare, guarantees the highest yields while not changing parameters of growth of shrubs, also affected the increase in fruit size.