

ABSTRACT

Elderberry is very popular plant, that is due to its beneficial effects to human organism very reputable. The main content substances are flavonoids and anthocyanins. Fruits of this flower are available only seasonally (which is usual for most of flowers), so we have to search for alternative solution of getting them. One of these solutions is conservation. Nowadays there are lots of types of postharvest adjustment, so we have more opportunities to find an optimal concept for every one specific plant.

The diploma thesis is focused on assessment of content of phenolic substances harvested in different parts of Hradec Králové. They were conserved at laboratory temperature, elevated (40°C, 60°C) and reduced (-18°C) temperature. Next part of thesis is focused on assessing of the content of anthocyanins in fruits, that had been conserved for 3 years in refrigerator. The theme was finding the best concept of postharvestal adjustment.

Despite to the individual places of harvest, there were not mentionable differences found out in content of phenolic substances in fruits. Main differences in content of substances were caused by different temperature of conservating area. With the upper temperature the content of phenolic substances was lower. Storage in the fridge for 3 years did not have any influence to content of substances.

Key words: *Sambucus nigra*, fruits, anthocyanins, phenolic substances, postharvest adjustment