Identification of cis and trans-resveratrol in different stages of the berries ripening of *Vitis labrusca* L. var. *Isabel*

K. Z. FONSECA¹, G. H. K de MORAES², F. da SILVA¹

¹UFRB-Universidade Federal do Recôncavo da Bahia, ²UFV-Universidade Federal de Viçosa

Palavras Chave: grape; isomers; resveratrol.

Introdução: The resveratrol (3,5,4’-trihydroxystilbene) is a secondary metabolite synthesized in some plants from p - coumaryl - CoA and three molecules of malonyl - CoA. Its biosynthesis is stimulated by UV radiation and fungi presence (Sautter C. K. Ciênc. Tecnol. Aliment., 25, 437, 2005). Since it is a polyphenol with antioxidants properties, it has been researched as a potent pharmaceutical compound. Both isomeric forms cis and trans are found in grapes but the trans form is converted to the cis form in the presence of light. The grape *Vitis labrusca* L. var. *Isabel* represents a variety of great commercial value and can be used both for the production of wines and juices and jams, in addition to the fresh market. It is the main cultivar planted in Brazil, accounting for 90% of the juices produced in Santa Catarina (Pommer C. V. Cinco Continentes, 2003, 778). It was aimed to identify the presence of cis and trans resveratrol in different stages of the berries ripening of *Vitis labrusca* L. var. *Isabel* by High Efficiency Liquid Chromatography method.

Parte experimental: The grape was collected in the city of Cruz das Almas, BA, Brazil, in three stages: mature, immature, half mature. A standard trans-resveratrol with 99.3 % purity was used. The cis form was obtained from the trans form by exposing it to visible light of 60W for 24 hours at 38º C (Melzoch, K. Agricult Conspectus Scient. 57, 2001). Mobile phases used were methanol and acetic acid; water and acetic acid. Peaks were detected by diode array detector and 305 nm wavelength (Deng, S. Food Chemistry, 2008, 111, 528).

Resultados/Discussão: Comparing the data obtained from vegetable samples and the standard compounds it was possible to find only cis-Resveratrol in the three stages: mature, immature, half mature. The trans form was not found due to probably be converted to the cis form.

Conclusão: In conclusion the method tested was effective to identify the cis form in the three stages of the berries ripening of *Vitis labrusca* L. var. *Isabel* collected in Cruz das Almas – BA, Brazil.