The grape has a broad composition, being constituted of organic acids, pectins, phenolic compounds, aromatic hydrocarbons, among others. During its industrialization are generated waste effluent disposal or use an ineffective, as used in fertilization. These residues in the most part, remain a significant amount of compounds, some being of great interest in relation to human health. The compounds are referred to as phenolic compounds which have antioxidant activity, which prevents the oxidation, thereby reducing the chance of developing diseases oxidative in nature. The present study aimed to obtain flour grape through the use of bagasse generated in the production of grape juice. We evaluated the residue and the flour content of total polyphenols, anthocyanins and antioxidant activity. Also evaluated are the physico-chemical variables analyzed. The meal proved to be within the parameters required by the Brazilian Internet law. The rates of bioactive compounds, as well as antioxidant activity were significant, although the pulp had a higher amount flour. This reduction was expected, since the drying of bagasse can cause significant losses. Finally, the results showed that the flour of waste generated from grape important properties have potentially beneficial to health and may be used in food processes such as in baking. Acknowledgements: UTFPR, CNPq and Fundação Araucária.