Production of Fruit Red Wine Made by Monascus anka CCRC 31499

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ABSTRACT

In this study, fruit red wine was made from fruit juice by Monascus ankaCCRC 31499 and brewer''s yeast. Apple juice was one of the best source foryield and quality improvement in wine making. The red wine was mixed by the 1:1 ratio of the apple wines made by M.anka and yeast after ten-day fermentation. The ethanol yield of the applered wine was 4.1% and 0.347% /0Brix.The color of the wine was moreacceptable than those of the wines made from grape and orange juice. Theother apple red wine was made by both M. anka and yeast from four-day toten-day mixture fermentation. The ethanol yield of the wine was 6.12% and0.313%/0Brix.It was found that the ethanol yield of the wine made by mixturefermentation, while the ethanol%/0Brix yield was decreased. The apple red wine only made by Monascus anka CCRC 31499 was alsostudied. Three different strategies of operation variables, such as winemaking temperature, time and sugar-type carbon source, were investigated.The optimal wine making temperature was at 25 °C for 10 days The ethanolproduction was 3.12% and 6.12%/0Brix.The pH value of the wine becomeincrease as winemaking temperature increased. The color of the wine made at25 °C become more red when the △ a increase was 0.1039/0Brix. °C.Fructoseand Glucos e were the optimal sugar-type carbon sources for M. anka winemaking. The ethanol yield for fructose was up to 4.98% but the △ a increasewas -0.12/ 0Brix. In addition, monosodium glutamate(MSG) addition was usedto improve the increase of ethanol production and color of winemaking. Forglucose and fructose the ethanol yields of red wines were 5.75% and 5.80%,respectively, while the colors were not changed. This research demonstratedthat M. anka CCRC 31499 was worth using to improve the ethanol yield an dcolor quality improvements in apple red winemaking.

Keywords : Monascus ; nka- Brewer- ; Red pigment

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REFERENCES

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