Nouvelle cuisine is a segment that searches for new products, valorizes regional tastes, and has potential for income and employment generation. The objective of this study was to develop and characterize a mango (Mangifera indica) acetic fermented for nouvelle cuisine. Integral juice produced with a blend of mango cultivars was fed-batch fermented by a selected yeast strain of Saccharomyces cerevisiae (Y904) during 72 hours. Alcoholic fermentation was monitored by measuring total sugar ($t_0 = 15$, $t_72 = 7.5$ °BRIX), alcoholic degree (6.6 °GL) and acetic acidity (1.2%, w/v). The mango wine obtained was fermented by Acetobacter sp mix culture in quick generator at 28°C, with four fermentative cycles of 90.7 hours (3.8 days), resulting in 77.8% efficiency, 0.0373 g.L⁻¹.h⁻¹ productivity, 6.7% (w/v) acidity and 0.4 °GL alcoholic degree. To conclude, the adequate productivity and the high efficiency achieved in acetic fermentation show that mango vinegar production is a viable alternative to add value to the raw material and product.