INFLUENCE OF FATTY ACID ADDITION ON FRUTAL AROMA PRODUCTION BY C. FIMBRIATA IN SOLID STATE FERMENTATION

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Natural aroma has great potential for economic possibilities of obtaining a wide range of biomolecules of interest food. The compound most important and the major aggregate value is isoamyl acetate to global banana aroma. Its production by biotechnological processes has great importance due to increased consumer preference for natural compounds. Ceratocystis frimbiata has the potential to synthesis of ester, grows quickly and produces a variety of aromas. This produces a large amount of fruit aroma (peach, pineapple, banana.). Citric pulp is a byproduct of the citrus industry and soybean meal is a byproduct of the processing of soybeans to oil produce. In production of natural aroma by SSF some enzymes was envolves in reaction to synthesis of esters, in this case the most important enzymes probably was lipases. The aim of this work is addition sources of fatty acids in substrate to improvement of frutal aroma production. Were tested soybean oil, corn oil and olive oil that were addition 5% each in Erlenmeyer’s (250 ml) containing a mixture of citric pulp, soybean meal and cane molasses. The headspace was analyzed, every 24h totaling 96 hours of SSF, in gas chromatography and was compared with a standard without addition of fatty acids sources. The best production was in 48 hours of fermentation and the corn oil with increase of 10.77 % (112.68 µmol/L of headspace.g of dry substrate) when compared of the standard, but not has influence in production of isoamyl acetate; the best production was in standard with 0.32 µmol/L.gds.