

Effect of emulsifiers on sensory acceptability of cassava flakes

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Abstract. Reconstituted cassava flakes mash becomes sticky, so emulsifiers are normally added to improve their textural characteristics and sensory quality. Three types of emulsifiers were added to cassava flakes: glyceryl monostearate (monoglyceride), sodium caseinate and skim milk. Sensory scores from 12 judges showed that, the use of glyceryl monostearate (monoglyceride) significantly reduced the stickiness and resulted in a whiter mash. Cassava flakes mash with sodium caseinate and skim milk powder were sticky and dark in colour reducing their sensory acceptability. Pasting characteristics of cassava flour and flakes by

the Brabender amylograph indicated that, samples with glyceryl monostearate had low viscosity. This is due to the ability of glyceryl monostearate to reduce starch granules gelatinisation. Starch granules from flakes with sodium caseinate and skim milk powder, gelatinised and burst completely, which resulted into a sticky reconstituted mash. Reconstituted cassava flakes mash with glyceryl monostearate (monoglyceride) was mealy, thus acceptable like freshly cooked cassava mash.