

Characteristics of tableted roselle (*Hibiscus sabdariffa* Linn.) with addition of sodium starch glycolate

Abstract

The focus of this research is to study the characteristics of tablets produced from the binary powder mixture of Roselle (*Hibiscus sabdariffa* Linn.) and sodium starch glycolate (SSG) powders. The experimental parameters studied were the compaction pressure and the mass composition. The findings indicated that the increase of compaction pressure increased the tensile strength of tablets until a limiting value was reached. On the other hand, as the compaction pressure increased, the porosity of tablets decreased to a minimum value. The elastic recovery of tablets slightly decreased in some results. The increase in compaction pressure also increased the dissolution time of tablets up to a maximum value. The increase of SSG composition decreased the tensile strength of tablets to a certain amount. The dissolution time of tablets also reduced when the percentage of SSG increased. Subsequently, under the same compaction conditions, the increase of SSG composition increased the porosity and the elastic recovery of tablets until the limiting values were achieved.

Keyword: Compaction; Dissolution; *Hibiscus sabdariffa* Linn.; Roselle tablet; Sodium starch glycolate; Tensile strength