XIII ENCONTRO REGIONAL SUL DE CIÊNCIA E TECNOLOGIA DE ALIMENTOS
RODADA DE NEGÓCIOS DA INDÚSTRIA AGROALIMENTAR 2015
ALIMENTOS INOVADORES: Desafios e Oportunidades
XIII ERSCTA
14 a 16 de outubro de 2015 | Curitiba - PR
ISBN: 978-85-60299-06-5

QA26

AMYLOSE AND AMYLOPECTIN CONTENT IN BRAZILIAN PINE SEEDS (ARAUCARIA ANGUSTIFOLIA) HARVESTED IN DIFFERENT SEASONS

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Área: QA - QUALIDADE DE ALIMENTO

Brazilian pine seeds (Araucaria angustifolia) known as pinhão, are composed by starch.Starch consists of two types of molecules, amylose and amylopectin. Both consist of polymers of α-D-glucose units. In amylose they are linked (1 4), with oxygen atom rings all on the same side, whereas in amylopectin about one residue in every twenty or so is also linked (1 6) forming branch-points. The relative proportions of amylose to amylopectin depend on the source of starch. It has a great influence on the physicochemical properties of starch and on many related applications. The goal of this study is to determine the composition of amylose and amylopectin from Brazilian pine seeds, collected in different periods of time throughout the year (premature, medium and late). Three replicates of each period of time were used. The amylose was determined by the spectrophotometer method in which the wavelength applied was 620 nm (ISO 6647). The amylopectin was calculated by subtracting total amylose (100%).All data was analyzed with ANOVA testing followed by Tukey´s test ($p<0,05$) for individual between-group comparisons. In premature Brazilian pine seeds the contents of amylose and amylopectin were 12% and 88% respectively; for medium 10% and 90% and for late 8% and 92% (dry base). There were no statistical differences between Brazilian pine seeds harvested in different time

periods, but all the samples presentedhigh-amylose.There is a great demand for high-amylose starch by the industry because of it's unique functional properties. However, very few high-amylose crops are commercially available.

Palavras-chave: Starch; Composition; Properties.

Apoio: Embrapa Florestas