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Czech J. Food Sci.

R. Dostálová, J. Horáček, I. Hasalová,

R. Trojan: Study of Resistant Starch (RS) Content in Peas during Maturation

Czech J. Food Sci., 27 (2009): S120-S124

Total starch (TS), amylose and resistant starch (RS) were determined in the sets of smooth pea and wrinkled pea varieties in the years 2006 – 2008. Starch content of smooth peas varied in the range 53.61 – 57.23%. Average amylose content was 27.8%. Resistant starch content varied from 2.07% to 6.31%. Content of starch at wrinkled pea varied from 26.57% to 32.55%. Average amylose content was 76.82% of total starch. Content of total starch increases continually during seed development. The dependence of total starch on determined dry mass in harvested sample can be defined by equation γ = 1.2427 × – 6.5611, by determination coefficient $R2$ = 0.8936 and highly significant correlation coefficient r = 0.945. Total

starch content in dry seed reached final average value 29.56%. In garden pea, the level of maturity (by tenderometric measurement) and dry matter were determined. Resistant starch content of 11 garden pea cultivars was studied in three different terms of technological harvest.

Keywords:
peas; total and resistant starch; amylose; dry matter; optimal term of harvest

[fulltext]