

Morphological Traits and Yield of Broccoli Cultivars

Sanja FABEK¹, Nina TOTH¹, Božidar BENKO¹, Mirjana HERAK ĆUSTIĆ¹,
Karmela DELONGA²

¹University of Zagreb, Faculty of Agriculture, Svetošimunska cesta 25, 10000 Zagreb, Croatia
(e-mail: sfabek@agr.hr)

³University of Zagreb, Faculty of Food Technology and Biotechnology, Pierottijeva 6, 10000 Zagreb, Croatia

Abstract

As numerous broccoli hybrid cultivars are available, research with aim to select promising hybrid broccoli cultivars with appropriate agronomic and chemical traits was carried out during summer-autumn growing period of 2007. The field trial involving 13 hybrid broccoli cultivars was laid out according to the randomized block method with four replications.

During harvest period basic morphometric values of top and lateral inflorescences were determined. The following agronomic traits were analyzed: mass and diameter of marketable top inflorescence, mass and number of lateral inflorescences and yield (top, lateral and total).

Cultivar Montop had the highest mass and diameter of top inflorescence (506 g and 15.5 cm), while cultivar Agassi had the lowest mass and diameter (321 g and 12.3 cm). Lower values of top inflorescence mass and diameter resulted with 42% lower top yield of cultivar Agassi in relation to cultivar Montop (1.54 kg/m²).

Due to low production (0.5 per plant) and mass of 22 g, lateral yield did not significantly affect on cultivar Montop total yield (1.57 kg/m²). Cultivar Green magic had the highest number, mass and yield of lateral inflorescences (6, 162 g and 3.24 kg/m²) which significantly affected on total yield (4.73 kg/m²). Cultivar Chevalier with total yield of 1.23 kg/m² achieved only 26% of cultivar Green magic total yield. The results point to the conclusion that the "Green magic" was favourable cultivar for summer-autumn growing period.

Key words: *Brassica oleracea* var. *italica*, cultivar, top and lateral inflorescences, yield

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Morfološka svojstva i prinos sorata brokule

Sanja FABEK¹, Nina TOTH¹, Božidar BENKO¹, Mirjana HERAK ĆUSTIĆ¹,
Karmela DELONGA²

¹Sveučilište u Zagrebu, Agronomski fakultet, Svetošimunska cesta 25, 10000 Zagreb, Hrvatska
(e-mail: sfabek@agr.hr)

²Sveučilište u Zagrebu, Prehrambeno-biotehnološki fakultet, Pierottijeva 6, 10000 Zagreb, Hrvatska

Sažetak

Obzirom na velik broj hibridnih sorata brokule, u ljetno-jesenskom roku uzgoja 2007. godine, provedeno je istraživanje sortimenta u svrhu izbora nekoliko perspektivnih sorata brokule odgovarajućih agronomskih i kemijskih svojstava. Poljski pokus s 13 hibridnih sorata postavljen je po metodi slučajnog bloknog rasporeda u četiri ponavljanja.

Tijekom višekratnih berbi utvrđene su osnovne morfometrijske vrijednosti vršnih i postranih cvatova temeljem kojih su utvrđena najvažnija agronomska svojstva. Analizirana su sljedeća svojstva: masa i promjer tržnog vršnog cvata, masa i broj postranih cvatova te prinos (vršni, postrani i ukupni).

Najveću masu i promjer vršnog cvata imala je sorta Montop (506 g i 15,5 cm), dok je najmanje vrijednosti (321 g i 12,3 cm) imala sorta Agassi. Niže vrijednosti mase i promjera vršnog cvata sorte Agassi rezultirale su 42 % nižim prinosom vršnog cvata u odnosu na sortu Montop (1,54 kg/m²).

Zbog male produkcije (0,5 po biljci) i prosječne mase 22 g, prinos postranih cvatova nije utjecao na ukupni tržišni prinos sorte Montop (1,57 kg/m²). Po broju, masi i prinosu postranih cvatova isticala se sorta Green magic (6, 162 g i 3,24 kg/m²) što je znatno utjecalo na ukupan prinos (4,73 kg/m²). Sorta Chevalier s ukupnim prinosom 1,23 kg/m² ostvarila je samo 26 % ukupnog prinosa sorte Green magic, koja se nakon jednogodišnjeg istraživanja može preporučiti za uzgoj u ljetno-jesenskom roku.

Ključne riječi: *Brassica oleracea* var. *italica*, sorta, vršni i postrani cvatovi, prinos

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