

# Morfološke promjene tijekom fenofaze odrvenjavanja koštice udomaćenih sorti maslina (*Olea europaea* L.) Istre

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## Sažetak

Tijekom rasta i razvoja plodova maslina dolazi do odrvenjavanja (sklerifikacije) endokarpa, a nakon završetka ove faze nastupa proces nakupljanja ulja u mezokarpu ploda. Poznavanje duljine trajanja i završetka ove faze važno je zbog određivanja termina i načina primjene agrotehničkih zahvata navodnjavanja, zaštite protiv štetnika, a kod proizvodnje plodova za konzerviranje zahvata prorjeđivanja kako bi masa i krupnoća plodova bili ujednačeni.

U istraživanju su vršena mjerenja dužine, širine i mase plodova udomaćenih istarskih sorti *Buže*, *Buže puntože*, *Rosinjole* i *Istarske bjelice*. Istraživanje je provedeno u kolekcijskom masliniku Instituta za poljoprivredu i turizam u Poreču u jednakim uzgojnim uvjetima.

Cilj istraživanja je bilo utvrditi dinamiku rasta plodova tijekom fenofaze odrvenjavanja koštice, kako bi se budućim istraživanjima mogla utvrditi korelacija između dinamike rasta i vremenskih prilika tijekom ove fenofaze.

Masa ploda kod svih sorata se u periodu lignifikacije endokarpa (od 7. do 28. srpnja) povećavala. Maksimum postotnog povećanja mase ploda u prvom tjednu imale su sorte *Buža* (48,5%) i *Rosinjola* (44,6%), a u drugom tjednu maksimum su dostigle sorte *Buža puntoža* (44,2%) i *Istarska bjelica* (42%). Najveće ukupno povećanje mase ploda zabilježeno je kod sorte *Buža puntoža* (1,30g), a najmanje kod *Rosinjole* (0,56g). Najveći porast duljine (D) i širine (Š) ploda imala je *Buža puntoža* (D: 7,13mm; Š: 4,23mm), a najmanji *Istarska bjelica* (D: 2,48mm; Š: 2,70mm).

Ključne riječi: odrvenjavanje koštice, maslina, morfološke promjene ploda, masa ploda

sa2011\_a0919

# Morphological changes during pit hardening phenophase of autochthonous Istrian olive (*Olea europaea L.*) varieties

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## Abstract

During an olive fruit growing and development it begins a pit (endocarp) lignification and after ending this phenophase begins an olive oil accumulation in olive fruit pulp (mesocarp). Knowledge of this phase duration and ending is important because of time definition and modality of agrotechnical procedures, irrigation and pest management as well as in table olive production for olive fruit thinning in order to obtain uniform fruit weight and size.

In the present research length, width and weight of Istrian autochthonous olive varieties *Buža*, *Buža puntoža*, *Rosinjola* and *Istarska bjelica* were measured. Study was done in olive collection orchard of the Institute of Agriculture and Tourism in Poreč in equal growing conditions.

The aim of research was to define an olive fruit growth dynamics during pit hardening whereby in further research we could determine correlation between growth and weather conditions during this phenophase.

Fruit weight in all varieties was increasing during endocarp lignification (from 7th to 28th July). The highest percentage in the first week had varieties *Buža* (48,5%) and *Rosinjola* (44,6%) and in the second week maximum was reached by varieties *Buža puntoža* (44,2%) and *Istarska bjelica* (42%). Peak in total fruit mass increase was detected at *Buža puntoža* (1,30 g), and least at *Rosinjola* (0,56 g). Maximum increase in length (L) and width (W) had *Buža puntoža* (L: 7,13mm; W: 4,23mm) and least *Istarska bjelica* (L: 2,48mm; W: 2,70mm).

Key words: pit hardening, olive, fruit morphological changes, fruit weight

sa2011\_a0919