OPLEMENJIVANJE JEČMA NA POLJOPRIVREDNOM INSTITUTU OSIJEK

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Oplemenjivanje ječma na Poljoprivrednom institutu Osijek ima šest desetljeća dugu tradiciju, a prvi radovi obuhvaćali su prikupljanje gen-kolekcije domaćih i stranih sorti ječma, te ispitivanje stranih sorti ječma u uvjetima proizvodnje Republike Hrvatske. Sve to je utjecalo na osmišljavanje koncepta križanja i početke hibridizacije na ječmu na PIO. Prva križanja ječma na Institutu učinio je prof. dr. Mato Valenčić 50-ih godina dvadesetog stoljeća, a 70-ih godina Poljoprivrednom institutu Osijek priznate su i prve sorte ozimog dvorednog ječma. Sorta Satir je prvopriznata sorta, priznata 1970. godine, Mursa je priznata 1972. godine, a 1973. godine priznata je i sorta Alkar. Poljoprivrednom institutu Osijek 1977. godine priznata je sorta Velebit jarog pivarskog ječma. U dosadašnjem radu oplemenjivačima ječma na Institutu u Republici Hrvatskoj priznate su 74 sorte ječma, od kojih su 34 sorte ozimog dvorednog ječma, 12 sorti ozimog višerednog ječma, a 28 je sorti jarog pivarskog ječma.

U razdoblju 1980. i 2000. godine stvorena je prepoznatljiva forma sorti ozimog dvorednog ječma poput sorti Pan, Rodnik, Sladoran, priznatih do 1990 godine; te sorti Rex, Zlatko, Barun, Trenk priznatih do 2002. godine koje su prevladale u proizvodnji ječma u Republici Hrvatskoj, a možemo reći i u ovom jugoistočnom dijelu Europe. Odlika ovih sorti je niska i čvrsta stabljika, izvrsne otpornosti na polijeganje, tolerantnost na rasprostranjene bolesti ječma uz mogućnost ostvarivanja velikog broja klasova/m^2. Također, značajno je prilagođeno vrijeme klasanja ovih sorti uvjetima proizvodnje ječma jugoistočne Europe, a dužina vegetacije i vrijeme klasanja ukazuju na adaptabilnost sorte proizvodnome području.

U proizvodnji ozimog ječma u četrdesetogodišnjem razdoblju najznačajnije OS-sorte ozimog dvorednog ječma bile su Satir, Mursa, Alkar, Slavonac, Pan, Rodnik, Sladoran i Rex, a danas u proizvodnji prevladavaju sorte Rex, Zlatko, Barun i TrenkOs, te sorte višerednog ječma Lord i Grof.

U inozemstvu je Poljoprivrednom institutu Osijek priznato 9 sorti ječma, a OS-sorte ječma Rodnik, Sladoran, Rex, Trasimeno, Olimp, Zlatko, Lord, Barun sijale su se ili se siju na značajnim površinama, u Republici Sloveniji, BiH, Republici Makedoniji, Mađarskoj, Austriji, Italiji, Bugarskoj, Turskoj.

Na temelju šestogodišnjih ispitivanja na Poljoprivrednom institutu u Osijeku (1997.-2002. godine) 13 sorti ozimog dvorednog ječma priznatih u RH u razdoblju od 1983. godine (sorta Pan) do 2002. godine (sorta Trenk) regresijskom analizom procjenjen je učinak oplemenjivanja ječma na Poljoprivrednom institutu Osijek. Procijenjena je ostvarena dobit oplemenjivanjem u urodu zrna od 41 kg/ha godišnje.

BARLEY BREEDING AT THE AGRICULTURAL INSTITUTE OSIJEK

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Activities in breeding of barley at Agricultural Institute Osijek are dated trom age of 50'ies in 20th century and primary they were related to gen-collection founding trough gathering of local and foreign varieties. That was also the beginning of barley variety testing to local growing conditions in Republic of Croatia. The results of conducted trials influenced largely the idea and strategy of first barley breeding project under leadership of Prof. dr. Mato Valenčić. In 70-es Agricultural Institute Osijek barley breeders came trough with the first recognized varieties of two-rowed winter barley. Firstly in 1970 there was variety Satir, in 1972 it was followed by variety Mursa (Osijek), and in 1973 variety Alkar. First variety of spring malting barley was named Velebit and it was recognized in 1977. To this day Barley breeding program at Agricultural Institute Osijek brought up 74 varieties, off which there are 34 two-rowed winter barley, 12 multi-rowed winter barley and 28 varieties of spring malting barley.

In period between 1980 and 2000 at Agricultural Institute Osijek there were created very recognizable form of two-rowed winter barley varieties such as Pan, Rodnik, Sladoran (up to the age of 1990) and Rex, Zlatko, Barun and Trenk that were recognized up to the 2002. All of the above mentioned varieties reached the highest place in range of wide and long-term acceptance in production in Republic of Croatia as much as in many of the Eastern European countries. Major advantage carried by this varieties compared to older ones were short and strong stem with optimum rate of elasticity responding with excellent resistance to lodging. Varieties possessed also very high tolerance to locally spreaded barley diseases and large potential and effectiveness in productive tillering that had commonly guarantied reaching of some of the highest results in realized amount of ears per area unit at that time production. Also is important to mention good temping of earing term according to East Europe barley growing conditions as much as very good adoptability of varieties to same region.

During last 40 years of barley production most important varieties were Satir, Mursa, Alkar, Slavonac, Pan, Rodnik, Sladoran and Rex while at present time at the same place were positioned varieties Zlatko, Barun and Trenk and there is still variety Rex in two-rowed and Lord and Grof as multi-rowed winter barley varieties.

Outside of Republic of Croatia Agricultural Institute Osijek possesses 9 recognized barley varieties and some of it as Rodnik, Sladoran, Rex, Trasimeno, Olimp, Zlatko, Lord, and Barun are grown at large area in Republics of Slovenia, Bosnia and Herzegovina, Macedonia, Hungary, Austria, Italy, Bulgaria and Turkey.

Impact of barley breeding was estimated by regression approach based on the six-years testing at the Agricultural Institute Osijek at location Osijek (1997.-2002. year) with 13 cultivars of two-rowed winter barley registered in Croatia from 1983. (cultivar Pan) to 2002. (cultivar Trenk) Realized gain from breeding was estimated at the rate of 41 kg/ha yearly.