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SUSTAINABLE POSTHARVEST AND  
FOOD TECHNOLOGIES  
INOPTEP 2019  
and  
XXXI NATIONAL CONFERENCE  
PROCESSING AND ENERGY  
IN AGRICULTURE  
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# **BOOK OF ABSTRACTS ZBORNIK APSTRAKATA**

**ŠESTA MEDUNARODNA KONFERENCIJA  
ODRŽIVE POSLEUBIRAJUĆE I  
PREHRAMBENE TEHNOLOGIJE  
INOPTEP 2019**

**i**

**XXXI NACIONALNA KONFERENCIJA  
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U POLJOPRIVREDI  
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## YIELD VALUE OF COLD PRESSED OIL OF THE LATEST SUNFLOWER OIL HYBRIDS

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The cold pressed sunflower oil is obtained by mechanical extraction from the seed which is pressed with a different content of the hull. The content of the hull in the seed is conditioned by the type of hybrid and affects the quality and yield of cold pressed oil as well as the quality of the obtained cake. In addition to the contents of the hull, the yield of the pressing is influenced by the type of raw material, ie the content of the oil in the material for pressing, then the preparation of the material, the granulometric composition, residual impurities, etc. The structure and power of the presses, as well as the pressing conditions (pressure, temperature, duration of the process, the content of the oil in the cake, the moisture content of the raw material, etc.), also affect the effectiveness of pressing (yield).

In this paper, the exploitation of the pressing (yield value) of the latest oil hybrids of the secondary filial (F2) generation grown on the territory of the Republic of Serbia was examined. The yield value in five different oil hybrids (Duško, Orfej, NS Konstantin, NS Ronin and NS Horizont) was calculated on the basis of the oil content of seed and cake obtained after pressing. The content of the oil was determined according to SRPS EN ISO 659:2011, while the moisture content was made according to SRPS EN ISO 665:2008.

The seed oil content ranged from  $32.52 \pm 2.16$  to  $41.66 \pm 2.08$  %, while the moisture content in these seeds ranged from  $5.92 \pm 0.04$  to  $6.08 \pm 0.08$  %. In the obtained cakes the content of oil was determined from  $14.80 \pm 0.05$  to  $17.64 \pm 0.01$  %, while in the same cakes the moisture content was in the range of  $6.92 \pm 0.01$  to  $7.84 \pm 0.03$  %. Of the examined samples, the maximum yield value was determined for the sample of NS Konstantin and amounted to  $75.61 \pm 1.99$  %, while the lowest yield value of  $55.37 \pm 4.41$  % was determined for the NS Horizont sample.

**Key words:** yield, pressing, oil content, moisture content

Note:

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