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The quality of soybean seeds cultivated under oxo-biodegradable plastic mulch
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Soybean is a globally important crop providing oil and protein. In 2016 the total world seed production was 313 million tons (www.globalsoybeanproduction.com). It is complicated to cultivate soybean in Northern-European conditions (N 58°41') where the growing period is short (average 157 days, from April to September) and there is mostly too much precipitation during the harvesting period. To get better quality of the seed a field trial was carried out by Estonian Crop Research Institute and NPO Estonian Union of Soybean using oxo-biodegradable plastic mulch in 2016. The 'SAMCO system' plastic was used. The tested soybean variety was Estonian Laulema. Oxo-biodegradable plastic mulch use decreased the length of the soybean's growing period by seven days. As a result, the content of the following characteristics is increased: raw protein 8.02 %, linolenic acid 0.33 % and alpha-linolenic acid 14.53 % and only raw fat content decreased by 3.92 % compared the control.