Black polypropylene mulch textile in organic agriculture

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In the organic system black polyethylene mulch is often used for weed control in a range of crops. However, using of black polypropylene mulch is usually restricted to perennial crops. In this experiment black polypropylene woven mulch was tested in potatoes under the organic system and using of mulch was compared with bare soil. The trial with two varieties of early potatoes Finka and Katka was conducted at the Experimental station of Department of Crop Production of the Czech University of Life Science Prague-Uhříněves in the Czech Republic. The result showed that the black polypropylene textile had a positive effect on soil temperature (in the depth of 100 mm). After planting slightly higher soil temperatures under black polypropylene mulch had a favourable influence on earlier stands emergence of potatoes. On an average of vegetation period soil water potential (in the depth of 250 mm) and also soil water content was higher under black polypropylene mulch than in control treatment. However, after planting as well as at the end of vegetation lower values of soil water potentials were found out under black polypropylene mulch. Black polypropylene mulch provided favourable temperatures and soil moisture for potatoes. Post harvest analyses were focused on the determination of the yield and the quality of tubers from each variant.