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Economics of open pollinating vs. hybrid rapeseed varieties

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Department of Economics and Economic Policy in Agribusiness, Poznan, Poland Analyzing the costs of rapeseed production in Poland, we can observe a systematic upward trend. According to Institute of Agricultural and Food Economics data, the costs of rapeseed production increased from 3014 PLN/ha in 2008 to 3814 PLN/ha in 2017. One of the ways to cover the rising production costs, and thus guarantee the profitability of production, is to achieve the high yields. One key factor determining yields is quality and properties of seeds. Growers can choose between open pollinating (o.p.) varieties and hybrids. Tests conducted by the Research Centre for Cultivar between 2008 and 2017 showed that on average yield of hybrids amounted to 48.6 dt/ha while o.p. varieties only yielded 43.4 dt/ha (- 5.2 dt/ha). Taking into account differences in seed cost and other input cost is can be demonstrated that the additional expenses caused by hybrids are usually more than compensated by higher revenues.

Rapeseed is a crop that responds positively to the level of inputs. Another experience carried out by Research Centre for Cultivar Testing branch in Głubczyce shows that rapeseed (including hybrid varieties) responded very positively to the increase in production intensity. Between 2014 and 2016 yields from three different cropping strategies were compared: standard, medium-intensive and intensive. The average yield of rapeseed for the standard technology amounted to 42,3 dt/ha, for medium-intensive technology 43.2 dt/ha, for an intensive 47.2 dt/ha. Again, it will be demonstrated that the higher input was profitable.

At the end, it should be emphasized that apart from the yield potential of a given variety, other varietal traits, such as winter hardiness should also have to be considered. In Poland the seasons 2011/12 and 2015/2016 were characterized by a rather harsh winter. Systematic comparisons indicated that the winter hardiness of o.p. and hybrids differ significantly and thereby making the investment into hybrids even more attractive.

The presentation will demonstrate that optimizing seeding is one of the key factors for the economic success of rapeseed production in Poland.