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**“THE IMPLEMENTATION OF GM TRAITS IN POLISH
AGRICULTURE: PROSPECTS AND CONSTRAINTS”**

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ABSTRACT

Application of molecular techniques, including recombinant DNA methods, in plant breeding resulted in the development and release of the first generation of transgenic cultivars. Bacterial genes responsible for herbicide resistance and coding for bacterial toxin against insect pests (BT genes) were incorporated into varieties of several crops (corn, cotton, soybean, sugar beet and rapeseed) with the aim of improving their agronomic performance. These new products of plant biotechnology were surprisingly well received by farmers in some countries. In fact, the rate of increase of area sown with transgenic seeds was very fast; it was the quickest adaptation of technological novelty in agriculture, so far. But in other countries transgenic cultivars were and are perceived as dangerous to people and environment and its implementation was met with vigorous protests of environmental groups and consumer's distrust. There are many reasons for the different attitudes toward this new technology; from cautious approach to new method of gene manipulation to economical and political interests.

In EU countries, Poland included, the regulatory system for GMO release is quite stringent, guided by the blurred concept of precautionary approach. In consequence breeding and release of transgenic cultivars is very difficult with lot of bureaucracy and costly. In the case of so called “agronomic character GMOs” this might result that placing on the market of GMO varieties will be unprofitable. The result is that very few transgenic cultivars are allowed to be imported to EU for feed and processing and even less can be cultivated.

Hope exists that this will change, when the so called second generation transgenic plants will be available for marketing e.g. plants with improved quality characters. In these varieties the benefit to the consumer should be more obvious than in the first generation agronomic GMOs, therefore these transgenics will be more attractive and more easily accepted.