



Dhara Mustard Hybrid – 11

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Introduction

Dhara mustard hybrid-11 also known as DMH-11 was developed in Delhi university by professor Deepak Pental. It was mainly aimed and focused on reducing India's demand for edible oil imports. DMH-11 is considered as the 2nd genetically modified crop in India. After BT cotton DMH-11 was approved by the government. It was invented through trans genetic technology in 2002. It is referred to as hybrid crop as it is the result or output gained after combining/crossing of two different parents and also called as trans genetic as its DNA is modified using engineering techniques. It is called as 11 because we get results after 11 generations. DMH-11 is a process by crossing a popular Indian mustard variety called "varuna" with an east European mutant called "early heera-2". According to census DMH-11 shows an average increase in yield up to 28% when compared over to best variants such as varuna grown in the country. The main issues faced during invention of DMH-11 was that the mustard considered both male and female gamete and are used to self pollination. Hence it cannot be pollinated by other specie gamet. For example: when bees or other species take the mustard seed, they usually put them into the other plants. This was one of the main issue faced by them but later on they rectified this problem and creating a solution was one of the great achievement for Delhi university. Mustard is considered among the 3 highest oil seed crops in India. It involves of barnase gene that is isolated from soil bacterium called as bacillus Amyloliuefaciens. This hybrid mustard plant does not only have high-yielding but it also fertile the production of seeds. Basically it consists of 3 genes namely: Bargene, Barnase, and Barstar.

Conclusion

Dhara mustard hybrid-11 was mainly developed to reduce imports of oils. This plays a vital role in the nation as it has increase in mustard more than the varuna seeds produced in India. It has helped community by providing better quality and quantity of oil seeds. It also has a positive effect on the society. It has reduced the import of oil from other nations. Hence Dhara Mustard hybrid-11 was a essential and a good innovation developed for the betterment of country.