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THE RESPONSE OF DIFFERENT WHEAT VARIETIES TO GAMMA IRRADIATION IN RELATION TO YIELD

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ABSTRACT

From the whole study it is concluded that the effect of irradiation was depressing and the magnitude of the depression varied with the strength of irradiation doses. Most of the effect was restricted to M_1 generation and only little amount was transmitted to the following generation. this reveals that the effect is genotypic in nature which is transmitted from generation to generation.

INTRODUCTION

Mutations are extremely valuable to plant and animal breeder, who is constantly seeking new varieties of the existing types of cultivated plants and domestic animals in an effort to improve them. There are many agents by mean of which mutation can be induced. These are x-rays, ultra-violet rays, lonization, heat, and certain chemical mutagens. So it is with this idea that some varieties of wheat were treated with gamma irradiation, and the results were studied in M_1 and M_2 generation.

The effect of gamma irradiation, on generation, survival, height etc. of various field crops, has been reported by many workers. Some have reported on the stimulating effect on the number of ears per plant, number of spikelet per spike etc. Shull and