The Effects of Consuming GMO vs. Organic Corn on Fruit Fly Health

Arnold, Janelle

Genetically Modified Organisms, or GMO, are becoming more prominent in the agricultural industry of the United States. According to the Institute of Responsible Technology, these organisms are created through genetic engineering where a section of DNA from organism A with the desired trait, is inserted into the DNA sequence of organism B. Recent studies have been conducted in France, led by Séralini, concerning the long term effects of consuming a GMO diet. The question stated “What is the effect of consuming genetically modified foods versus organic food on the health of fruit flies?” The hypothesis stated that if GMO corn is consumed by a population of fruit flies, then the survival rate and fertility rate will decrease. Fruit fly cultures were created using tennis ball containers and a disposable container as the lid. Breathing holes were created and covered with a strip of paper towel and plastic mesh was used to increase surface area. Two fruit fly diets (Organic and GMO) were created with a ratio of 90 grams of oats for every 525 grams of fresh/frozen corn kernels. Two grams of yeast were also added to each culture to attract the flies. The culture was observed for approximately 10 days. The results proved the hypothesis correct, showing that the survivorship percentage was 23.2% higher in the organic cultures in comparison to the GMO. A definite conclusion on the long term effects of GMO could not be reached due to the length of the experiment. Further generations would need to be observed and recorded on a GMO corn diet and organic corn diet.

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