AWARENESS OF STUDENTS ON GENETICALLY MODIFIED ORGANISMS IN A STATE UNIVERSITY: BASIS FOR A PROPOSED UNIVERSITY AWARENESS PROGRAM

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ABSTRACT

As an educational institution, there is a need to be well informed especially about pressing issues and concerns affecting humanity and one such issue is on the genetically modified organism. GMOs are organisms that have gone through some genetic alterations. It has become a business that may have started with good intentions, but that which have been described by experts as something that can also affect large numbers of people in yet unforeseen ways, that some are not even aware of the fact that they are consuming GMO food. The study aimed to find out the level of awareness of Technology and Livelihood Education students in a State University in Region 02 on Genetically Modified Organisms with the hope that many people will acquire knowledge for the development of the community. It made use of the quantitative descriptive-inferential approach using a questionnaire checklist validated by experts. Weighted mean and Analysis of Variance were used to analyze the data gathered. **Findings** show that most of the respondents have a low level of awareness on genetically modified organisms in food products and have a very low level of awareness in terms of genetically modified plants, animals, medicine, and the possible health risks these can bring about. Furthermore, findings reveal that there is a significant difference on their level of awareness in terms of genetically modified food products, plants, animals, medicines. With the findings and conclusions gathered, there is a great need to raise the level of awareness of the respondents on genetically modified organisms. Thereby, the researchers proposed the University Awareness Program on genetically modified organisms making every student in the university fully aware of the issue of GMOs.

Keywords: *Genetically Modified Organisms, Food Products, Plants, Animals, Medicines, Health Risks, Awareness, Students*

RESEARCH HIGHLIGHTS

GMO has become a business that may have started with good intentions, but that which have been described by experts, as something that can also affect large numbers of people in yet unforeseen ways. GM plants are being developed today to produce specific vitamins, resist plant viruses, and even produce products for medical uses (Monsanto Company, 2015).

Now, GMO products are widely spread and the risk of using them involves multitudes of people all over the world. Some are not even aware of the fact that they are consuming GMO food (Digal, 2017).

1. Technology and Livelihood Education students alarmingly have a very low awareness on genetically modified organisms on food products, plants, animals, and medicines.
2. Technology and Livelihood Education students have a very low awareness on the health risks genetically modified organisms may bring.
3. With a very low awareness about the aspects of GMO, it appears that they were at least aware about its presence on food products.

Research Objectives

The researchers conducted an assessment on the awareness of students in a state university in Region 02 on Genetically Modified Organisms (GMO) with the hope that many people will acquire knowledge for the development of the community.

The study aimed to find out the level of awareness of Technology and Livelihood Education students on Genetically Modified Organisms.

Methodology

The descriptive method of research was used for this study using both descriptive and inferential statistics. The respondents were mainly the first to fourth-year students of Technology and Livelihood Education enrolled during the 2nd semester of S.Y. 2018-2019. 108 samples were randomly selected from a total population of 149 students.

Survey questionnaire was used to gather the necessary information, which contained questions about the aspects of GMOs, particularly on awareness on GMO in food products, plants, animals and medicine, as well as on health risks. A 5-point Likert Scale was used to find out the level of awareness of the respondents: 5-Highly Aware; 4-Slightly Aware; 3-Aware; 2- Slightly Unaware; 1-Unaware.

Data gathered were tallied, tabulated, and analyzed using statistics software. Weighted mean was used to determine the relative importance of each observation, and Analysis of Variance to determine the significant difference between and among the level of awareness of the respondents. Games-Howell Post Hoc test was used for multiple comparisons.

Results

Respondents have a slight level of awareness on GMOs in food products with an overall mean of 1.79 with verbally interpreted as "slightly aware". Thus, they are not fully knowledgeable about the issues and topics on GMOs in food products.

On the level of awareness on GM plants, data show an overall mean of 1.37 ,while on GM animals, an overall mean of 1.37, and in GM medicinal products, it has an overall mean is 1.01 – all with the verbal interpretation of “unaware”. This means that the respondents have not heard or read anything about the issues and topics on genetically modified plants, animals nor in medicinal products.

They are not aware of the health risks of GMOs. This was described by an overall mean of 1.02 with a verbal interpretation of “unaware.”

The computed F-value (24.293) and p-value (.000) leads to the rejection of the null hypothesis that there is no significant difference between and among their level of awareness on GMOs in food products, plants, animals, and medicine. Multiple comparisons reveal that the significant difference is found between their level of awareness of the respondents on GMO in food products and animals, and between food products and medicines.

Findings

Most of the respondents have a low level of awareness on genetically modified organisms in food products and have a very low level of awareness in terms of genetically modified plants, animals, medicines, and the possible health risks these can bring about.

There is a significant difference on the level of awareness in terms of genetically modified organisms in food products, plants, animals, and medicines, and that the respondents are much more aware on its presence in food products compared to the rest.

In summary, the Technology and Livelihood Education student respondents have a low-level awareness of genetically modified organisms.

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Annalene Grace E. Co received her master's degree in Science Education from University of La Salette, Inc., Philippines in 2012. Then she pursued her Ph.D. studies in Science Education in 2014 and Educational Management in 2018 in the same University. She has 5 years of experience in teaching science courses and has done researches on Applied Sciences. Currently, she is working as Assistant Professor and the Program Chairperson of the Bachelor of Secondary Education in Quirino State University, Maddela Campus, Philippines. Her research interests focus on product development in science and technology

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