



Is Our Diet Good For Our Health?

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Introduction:

Out of the country health problems are a lot caused by the type of food we consume and the contents of that food. This is not only caused by the ignorance but also the lack of knowledge on the presence of harmful chemicals in the food we consume. These chemicals come from pesticides and chemicals used during food processing, additives and contaminated water. In Tanzania the pesticide which is legally used is Dichlo-Dipheny I – Trichloroethane (DDT). It was banned in 1992 but re-introduced by the Ministry of Health in 2010 as a tool to eliminate Malaria vector without considering its environmental effects. The main effect of DDT is that it is a source of 2,3,7,8 tetro – chlorodibero para dioxin (TCDD) / Dioxin which is human known carcinogen (According to IARC): Most of the food additives are harmful. During food processing there are substances used that harms the body by causing headache, high blood pressure and vasoconstriction.



Materials required are :-

Spatula, fat (blue band), microwave, watch glass and a microscope
Manila cards and marker pens
Pictures of different pesticides example; DDT, toxaphene, chlordne, mirex and heptachlor
Pictures of people who had experienced the exposure of dioxine ex; Vicktor Yushrenko.
An image to show the effects of caffeine and cholesterol to human body.
A table to show the type and age of fethered minnow and their dioxin concentration in their bodies.
Images of people who are farmers irrigating their vegetables by using contaminated water example: farmers from Msimbazi valley
A graph showing how cholesterol accumulation is linked with heart diseases.
Methods we use of doing experiment and presentation.

Table 1:

Uses and possible ill-effects of food additives.

Additive	Uses	Possible ill - effects
Amaranth E123	Red colouring in jams, jellies, ketchup, 'fruit' drinks	Tumour production and allergic reactions
Tartrazine E102	Yellow colouring in 'fruit' drinks	Behavior problems in children
Monosodium glutamate 621	Flavouring in cup-a-soups and Chinese foods	Allergic reactions, psychological effects (depression)
Sulphites	Preservative in beers, wines, fruit juices, dried fruits	Interferes with vitamin A and B metabolism

Results:

METHODS TO BE FOLLOWED.

Take a sample of fat (blue band) by using a sterilized spatula and put the sample into clean watch glass and afterwards put a watch glass into a microwave at 30 C temperature and after sometime remove the watch glass and put the sample into a microscope slide and examine the sample.

The experiment worked because both samples natural and artificial fats happens to favour the growth of microbes. The microbes we seen were moulds in natural fats and add roundish structure like eggs in artificial fasts.

In this experiment, the hypothesis was supported by the experiments when it took 24 hours for the microbes start to reproduce in the sample contained Addictives (Artificial fat) unlike natural fat microbes started to reproduce after 168 hour (7days). Also the photograph proved that the food that consumed by many Tanzania is contaminated through dirty and poisoned water used for irrigation. That dirty and poisoned water comes from the industries and garages and drained to the water streams like rivers where the farmers fetch the water for irrigation.

Conclusions:

As we have seen that our hypothesis about how foods are contaminated have been proved right by the experiment we have done then now it can be clearly concluded that, many Tanzanians are in a danger of diseases because the foods that they consume are freely contaminated through many ways directly and indirectly.

The experiment was interesting because after several days funny organism were moving in the samples for experiment.

The experiment was also supported by GCCE Biology because, it pointed out factors favoring production of microbes like those we demonstrated.

Moreover, in our daily life plenty of foods are contaminated mainly through the way they are stored especially when the temperature shown by manufactures exceeds.

When our project is revealed in societies a number of people will be aware about ways that foods are contaminated, dangerous chemicals and pesticides used. We expect to create a science club for the students and youth about contaminated food and diseases it posses, pesticides used and processing so as they could be good ambassador to their nation and to the rest of the world.

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Further information:

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