INTERNATIONAL CONFERENCE PROPOSAL

THEME: Hazards of Agricultural Chemicals and Practices: Implications for the Environment, Food Security and Public Health in Developing Countries

By

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1.0 INTRODUCTION

Agricultural chemicals, notably fertilizers and pesticides among others, have improved modern agriculture tremendously.

In order to obtain increased crop yields, the use of fertilizers is a necessity in most developing countries as it has been for a long tie in the developed world. The substitution of more productive and more responsive varieties of crops for the older traditional ones will not yield expected benefits without fertilizers. The fullest success results only when the two are properly combined.

The benefits of fertilizers may not be very glaring in the develop countries because they are used sparingly, owing to short supply or unavoidability. However, environmental hazards may result from wrong usage, wrong calculation of application rates, improper application techniques, and general abuse.

Pesticides are used to protect crops from the adverse effects of pests. Apart from agriculture, pesticides are used for public health purposes and in particular, the eradication or control of rodents, insects, mites, ticks and snails, which carry debilitating and ften lethal diseases. Ideally, all pesticides should be harmless to users, the community and the environment; unfortunately, most are not. When used properly, pesticides provide an economical method of managing pests in agricultural production and environmental protection. However, certain pesticides, when mishandled and misused, can lead to human health and environmental hazards, as well as food safety issues.

The impact of agricultural chemicals on humans and the environment has become an important subject of study in recent times. Several international conventions and agreements have set out strategies and programmes to counter environmental degradation and promote sustainable development. In 1992 the United Nations Conference on Environment and Development (UNCED) adopted Agenda 21, which advocated the use of target-specific and readily degradable pesticides or the use of biological control agents as an alternative to the use of toxic or hazards pesticides for agricultural and health purposes. Similarly, the Food and Agriculture Organisation (FAO) and the European Union (EU) have continuously recommended that acute hazard categories of pesticides should not be used in the developing countries, because they are dangerous to the environment.

In spite of the global efforts to restrict the use of hazardous pesticides with various adverse health and environmental effects, several domestically forbidden products from the developed countries are still being shipped to the developing world. In 1998, the Rotterdam convention on Prior Informed Consent (PIC) identified 22 pesticides, which were either widely banned or severally restricted, or which cause problems under conditions of use in the developing countries.

Similarly, the Persistent Organic Pollutants (POPs) Treaty or the Stockholm Convention of 2000 listed 12 pesticides, which are known to persist in the environment and to accumulate in the air, water and the food chain.

Herbicides are agents used to destroy plants or inhibit plant growth. Some substantial benefits can be gained from the use of herbicides to manage unwanted vegetation. Compare to alternative means of weed control, such as mechanical weeding by hand or machine, herbicides are less expensive, often safer (especially in forestry), faster and sometimes more selective.

However, if not properly applied, they may cause damage to crops (too large doses). Environmental hazards, such as changes in animal habit, reduced biodiversity and accumulation in the ecosystem as well as ground water leading to toxicity to fish and wild life, are also associated with the use of herbicides.

Herbicides, also referred to as weed killers, are a serious health hazard to humans, especially children. It has been shown that serious health hazards such as cancer, disruption of human sex hormones leading to miscarriages, child leukemia, brain tumours, lung damage as well as acute and chronic injury to the nervous system, can occur as a result of improper use or handling of herbicides.

In view of the above, the implications for food quality and safety, as well as the environment and health of the populace are evident. Food safety must cut across board from what happens at the farm, manufacturers, food labeling, packaging, hygiene, additions f chemicals such as additives and pesticides, biotechnologies, import and export inspection and home use. Contamination may occur directly or indirectly through contact with soil, fertilizer, water used for irrigation, exposure to livestock, packaging house equipment, transportation vehicles, the workers' handling of the products and even in the house. The indiscriminate use of agricultural chemicals, from land clearing to harvesting of crops, therefore, poses enormous challenges to food security.

1.1 Objective

The objective of this conference is therefore to highlight the possible implications of the hazards of agricultural chemicals and practices on the environment, food security and public health in the developing countries of the world.

2.0 SUB-THEMES

This subject can be discussed adequately under the following sub-themes:

Agrochemicals and the environment

- Pesticides
- Herbicides
- Fertilizers
- Growth enhances

Food Security

- Implications of agrochemicals in food production
- Targeting fertilizer to the soil or crop: implications for food quality and post-harvest losses
- Use of chemicals for reduction of post-harvest losses during storage: implications for food security

Food Quality

- Indicators of food quality (food quality standards)
- Chemical additives and contaminants that affect food quality (from farm to table)

Food Safety

- Inorganic fertilizer and health
- Pesticides, food and public health
- Food contaminants from unintentional sources (environmental impact)
- Emerging Contaminants of Concern (ECC) and food safety

Marketability

- Occurrence of pesticide residues in food: Implications for local and foreign markets

3.0 KEY NOTE ADDRESS

- Promoting Good Agronomic practices for a Sustainable Environment, Food Security and Public Health

4.0 TARGET PARTICIPANTS

- Farmers
- Government officials (policy makers and operators)
- Food processors/marketers
- Agrochemical producers, dealers and handlers
- Lecturers from higher institutions
- Researchers from research Institutes
- Doctors and Nurses
- Community Leaders
- General public

5.0 RESOURCE PERSONS

Resource persons will be obtained from the following:

- Universities in Nigeria
- Research Institutes (e.g. IITA, IFS, IAR, NRCRI)
- Agro-Allied industries
- Regulatory Agencies (e.g NAFDAC, SON)
- Nigerian Institute of Food Science and Technology (NIFST)
- Nutrition Society of Nigeria (NSN)
- Nigerian Export Promotion Council
- International experts in the field

6.0 BUDGET

The budget overview is as follows:

a.	Transport and Logistics	- 500,000
b.	Scientific and Technical	- 830,000
c.	Venue/Security	-1,403,850
d.	Accommodation	-2,005,500
e.	Feeding/Hospitality	-2,388,750
f.	Publicity	- 677,250
	Total	**7,805,350**