



# NIGERIAN SCHOOL HEALTH JOURNAL

## Eastern Zone

Vol 3 (2), 2003

*Published by*  
**Nigerian School Health Association**  
Eastern Zone



## Reducing Accidents in the Agriculture Enterprises Through Safety Awareness Programmes in Agriculture Teacher Education

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*This paper discusses the possibility of reducing accidents in agriculture enterprises through safety awareness programmes in agriculture teacher education. Specially, it has discussed the elements of accidents and their effects; the concept of agriculture teacher education; the need for safety awareness programmes; suggested curriculum components of an agriculture enterprise safety awareness programmes as well as the implications of safety awareness programmes on safe, successful and sustainable agriculture enterprise operations.*

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The occurrence of various forms of accidents in the agriculture enterprises is a daily phenomena that seem insignificant but with significant negative effects. Accidents are situations of mishaps that may occur due to carelessness on the part of the individual or group of individuals or through the abject neglect of putting in place the relevant safety measures and observing them in the enterprise concern. The occurrence of accidents according to Ekong (2002) have often resulted in casualties, calamities, disaster, misfortunes, discomforts, sufferings, injuries, losses of lives and so on.

The agriculture enterprises embrace the specific aspects of ventures be it production, processing, storage and/or marketing/distribution by an individual/groups of individuals, organizations or corporate bodies as honest means of livelihood. Human beings require food for energy, growth, and for the performance of life functions. Such needs calls for food production, processing, storage and or distribution. They are accident-prone enterprises. It might not be wrong to remark that little or no consideration have always been given, for putting in place safety measures by operators to avert such dangerous trend in the supposed smooth and safe enterprise engagement. Accident situations is articulated in Spore (2002) as that which occur in the field and on the farm and require as much attention as the appalling lack of safety elsewhere in the food chain. It is also noted that for producers and consumers of agricultural produce and products worldwide, safety measures are often too little and if at all provided, it comes too late, and for the unorganized it is too far away. If at the food production level, safety is hardly considered so much more the safety of



consumer's which are better imagined than described. If nothing is done to reverse the trend right from the stage of training of agriculture teachers, the inherent dangers of accidents become complicated. Then the essence of training the agriculture teachers for effective role performance shall have been defeated.

Ekong (1997) stressed education in agriculture through the schools at different levels as constituting the foundation for agricultural innovations including articulated safety programmes. It would ensure the design and development of safety mechanism for accident free agriculture enterprises. Therefore the designing, development and implementation of the safety curriculum should be a prominent component of agriculture teacher education.

### **Agriculture Teacher Education Programme in Nigeria**

Agriculture teacher education is an all-embracing programme for the training of personnel for the agriculture world of work to serve as teachers, extension person personnel, programme planner's etc. It is a designed programme described by Ekong (2000) as an all embracing professional activity aimed at producing competent teachers for efficient performance of agriculture teaching functions. It also describes an academic and vocational programme of preparing agriculture teaching personnel in the art of imparting knowledge and skills of practical values to the in-and out of school youths. The objectives of the teacher preparation as articulated by Ekong (1999) included.

- The production of highly motivated, conscientious and efficient agriculture teachers,
- The encouragement of the spirit of enquiry and creativity in the agriculture teachers,
- Helping agriculture teachers to fit into the social life of the community and society at large to enhance commitment to national objectives,
- The provision of agriculture teachers with intellectual and professional background adequate for their assignments and for their adaptability to changing situations in the life of Nigerians and the world at large,
- Enhancing agriculture teachers' commitment to agriculture teaching profession.

Olaitan and Ekong (2001) categorized the patterns for the training of agriculture teachers as being in two parts- the pre-service and the in-service patterns. The pre-service pattern involves the admission of unemployed but qualified candidates who may be interested in teaching for the training at the Nigeria Certificate in Education or at the Bachelor's degree level. The trainees are exposed to rudiments of science, technology, methodologies and general education as well as other professional contents. But the safety components based on the another as an agricultural education is observed to be absent and for incorporation into the training curriculum considering the inherent hazards in the agriculture world of work.

The in-service pattern is meant for knowledge and skill update of agriculture teachers on the field. The need for in- service programmes is associated with



new developments the teachers should be exposed to. The arrangement could be through conferences, workshops, seminars or regular short courses. Offorma (1992) as having some deficiencies of being too academic generally observed the teacher education patterns, theoretical, inadequate and unsuitable. Offorma's observation might not exclude the absence of safety programmes to ensure safety in production operations and consumption of agricultural produce and products. Such a situation of course is dangerous.

### **The Need for Safety Awareness Programme**

Safety awareness programme is a designed and developed activities directed at exposing individuals or groups of individuals to safety principles, practices and their applications. The need for safety awareness programmes in agriculture teacher education programme is no better than now. The agriculture world of work with its numerous enterprises is divers and dynamic with component hazards, which of course could culminate into accidents. To stem accident-prone situations justifies the need for safety awareness programme so long as it would perform the following roles towards achieving such objectives as;

- It would provide an avenue and condition for the development of safety attitudes and habits among agriculture teachers.
- It would prepare the trainee teachers for effective application of safety measures in the agriculture enterprises he/she or students developed would be engaged in on graduation.
- The attitude of ensuring adequate facility maintenance would be ensured in those exposed to the experiences.
- Agriculture teacher trainees would be developed in the skills of carefulness, precautions, attentiveness and good judgement.
- Agriculture teacher trainees would be exposed to potential hazards and accident prevention strategies or measures applicable to agricultural enterprises and practices.
- The safety programmes would go a long way to help agriculture teacher trainees to develop proper guidelines on the utilization of farm tools, equipment and machines.
- The students pass through organised experience of safety awareness programmes would be in a position to appreciate pre-planned approaches for handling emergency accident situations that may occur in any agriculture enterprises.

### **Areas of Agriculture Enterprises for Safety Awareness Programmes**

Safety awareness programmes developed for incorporation into the agriculture teacher education curriculum of tertiary institutions in Nigeria would contribute ensuring safe environment for agriculture enterprise practitioners.

They would also be armed with developed attitudes and skills as viable tools to facilitate safety operations. With such view in mind, safety awareness programmes for agriculture enterprises could be developed in such areas as:



- Agricultural production
- Agricultural produce processing for quality and ensured supply
- Agriculture produce/product storage technologies for safe practices.
- Agriculture commodity marketing and distribution to ensure putting in place safety mechanisms for successful engagement in the enterprise
- Agricultural chemicals utilization (such as fertilizers, pesticides herbicides, rodenticides etc) to ensure the safe manipulation by users and the consumers of agricultural products.

### **Characteristics of A Good Safety Programme**

The characteristics of a good safety awareness programme as adapted from those of the Colorado Industrial Arts Association in 1984 would be as follows; the programme should;

- Be well organized with provisions for periodic reviews and evaluation
- Have inbuilt discipline, that is, the ensuring and insisting on the safety mechanisms right from the first day of classes,
- Have reasonable and prudent actions in place in the interest of the learners safety and welfare,
- Have provisions for restricting infringement on the safety rights of others among the learners
- Be practical enough to eschew rigidity in practices and application and practices,
- Be motivating enough through flexible instructional approaches rather than translating into enforcement of set rules,
- Ensure students' participation in agricultural enterprises operation in terms of the implementation and ready acceptability of their inputs for adjustments,
- Be relevant to the needs of the learners as determined by the entrepreneurial situations they are expected to function,
- Be result oriented, that is ensuring accident-free enterprise engagements based on specified focus of the enterprise.

### **Suggested Curriculum Components of Agriculture Enterprise Safety Awareness Programmes.**

Since agriculture enterprises are diverse and dynamic with simple and/or complex tools, equipment, machines and other facility utilization, the safety programmes that would be developed should have such components as:

- Safety concept definitions and explanations
- Safety inspection
- Accident report writing
- Tools equipment and machine operational safety.
- Enterprise locational and residential safety policy.
- Technology information education



Technology information education could be regarded as the form of education that provides the guidelines on the operation, maintenance of tools, equipment and other facilities of domestic and industrial usage to save cost, reduce wastage and the risks of loss of life.

- Electricity utilization safety.
- Fire safety, such as the use of fire extinguishers, storage of fuel at Homes.
- First-aid activity safety, that is, what should be done and with what in emergency accident situations.
- Individual/personal safety, in terms of personal safety precautions and practices.
- General safety practices for the learners and their teachers and operators agricultural enterprises.
- Communication system safety devices.
- Production operational safety.
- Processing operational safety.
- Storage facility operational safety.
- Marketing and distribution operational safety.
- Safety supervisory roles of agricultural teachers, prefects, farm supervisors etc.

### **Implications of Safety Awareness Programmes on Safe and Sustainable Agriculture Enterprise Operations**

The fundamental assumption underlying safe, and sustainable agriculture enterprise operation is the integration of well articulated safety awareness programmes in agriculture teacher education. The agriculture teacher is primarily concerned with the development of youths and adult farmers for successful engagement in agriculture vocations. If the agriculture teacher is well trained in safety in agriculture enterprises, he or she would produce safety conscious youths from school. Such youths constitute the potential farmers who would succeed the older generation and practice safety-oriented agriculture production, processing, storage, marketing and distribution. The fear of consumption of unfit food products shall have been a thing of the past with adequate safety awareness mechanisms. It will ensure successful and sustainable engagement in chosen agriculture enterprise.

If the non-safety agriculture practices persist then the statuesque of daily occurrence of one form of accident or the other in agriculture enterprises will also persist. The danger inherent in agriculture production, processing, storage and so on related to accidents could easily manifest. The lives of stakeholders in designed agriculture enterprises would be endangered.

### **Conclusion**

The need for reducing accidents in the agriculture enterprises calls for a well-articulated safety awareness programme in agriculture teacher education in



Nigeria. This paper has highlighted a number of safety awareness programmes in agriculture enterprises as well as safety awareness curriculum contents for agriculture teacher education has been suggested. The suggestion should be considered by curriculum developers and implementers of agriculture teacher education programme for the production of quality and safety conscious agriculture teacher, who would in turn influence the youths in school with safety-conscious attitudes. Hopefully, such would ensure safe and sustainable engagement in the various agriculture enterprises.

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