

# Asia Working Group on Groundnut Aflatoxin Management: Background, Objectives, and Goals

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Groundnut is a major food legume and an important oilseed crop in many Asian countries. It is a major source of income to both small- and large-scale farmers. Groundnut also contributes significantly to the export earnings of several countries. Aflatoxin contamination is a major problem in many groundnut-producing countries. Aflatoxins are highly toxic, cancer-causing substances produced by the fungus *Aspergillus flavus*, which often infects groundnut pods and seeds. The presence of such toxic and carcinogenic substances in groundnut foods and feeds has a considerable impact on the utilization of, and trade in, groundnuts and groundnut products. Some groundnut-producing countries are losing export earnings because they are not able to achieve the maximum permissible limits of aflatoxin set by importing countries. Although many national and international research institutions are working on various aspects of the groundnut aflatoxin problem, a coordinated effort is needed to hasten the development of integrated aflatoxin management strategies. The International Groundnut Workshop held at ICRISAT in 1991 recommended the formation of a Working Group on Aflatoxin Management. This paper describes the concept and operation of a Working Group, and its role in assisting and enhancing research collaboration and outcomes.

## **Cereals and Legumes Asia Network (CLAN)**

CLAN was established in April 1992 by amalgamating the erstwhile Asian Grain Legumes Network (AGLN) and the Cooperative Cereals Research Network (CCRN). CLAN serves as a single-window network in Asia, for research and technology exchange involving sorghum, pearl millet, chickpea, pigeonpea, and groundnut.

CLAN comprises of scientists and administrators in Asian countries who have indicated their interest and willingness to commit resources to undertake collaborative research, participate in network activities, and share results and technology.

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Membership includes staff from more than 15 Asian countries, regional and international institutions primarily in Asia, and ICRISAT. Currently, the Coordination Unit is located at, and supported by, the ICRISAT Asia Center.

The specific objectives of CLAN are to:

- Strengthen linkages and enhance exchange of germplasm, breeding material, technical information, and technology options among members,
- Facilitate collaborative research among members to address and solve high-priority production constraints, paying attention to poverty and equity issues as per the needs and priorities of member countries,
- Assist in improving the research and extension capability of member countries through human resource development,
- Enhance coordination of regional research on sorghum, pearl millet, chickpea, pigeonpea, and groundnut, and
- Contribute to the development of stable and sustainable production systems through a responsive research capability in member countries.

The overall objective of CLAN is to support, coordinate, and facilitate technology exchange involving CLAN priority crops and their resource management among Asian scientists. The ultimate goal is to improve the well-being of Asian farmers by improving the production and productivity of crops in a sustainable manner.

## **Working Groups**

Individual laboratories and/or institutions are unable to take up comprehensive studies due to the scarcity of funds, facilities, and expertise. Therefore, it is not surprising that scientists should endeavor to join hands to address, and find solutions to, important regional problems for increased and sustainable food production. A Working Group (WG) can be defined as a group of committed scientists sharing a common interest in addressing and finding solutions to a high-priority regional problem. Working Groups are also called subnetworks, working parties, or consortia. International and regional Working Groups coordinate and stimulate cooperative research by bringing together experts from developed and developing countries, international agricultural research centers, and specialized research laboratories and institutions, to work together on a common platform as equal partners.

The concept of Working Groups is not new; scientists around the world have been pooling their resources and sharing the results either formally or informally. Many countries have collaborative ventures for sharing resources and research responsibilities. In the international arena, collaborative agricultural research networks are becoming increasingly popular as a means of utilizing funds, facilities, and staff more efficiently and effectively. For example, Working Groups on Asia-Pacific Groundnut Viruses and Bacterial Wilt of Groundnut have been successful in generating new research information, creating research partnerships, and disseminating research results, information and technologies.

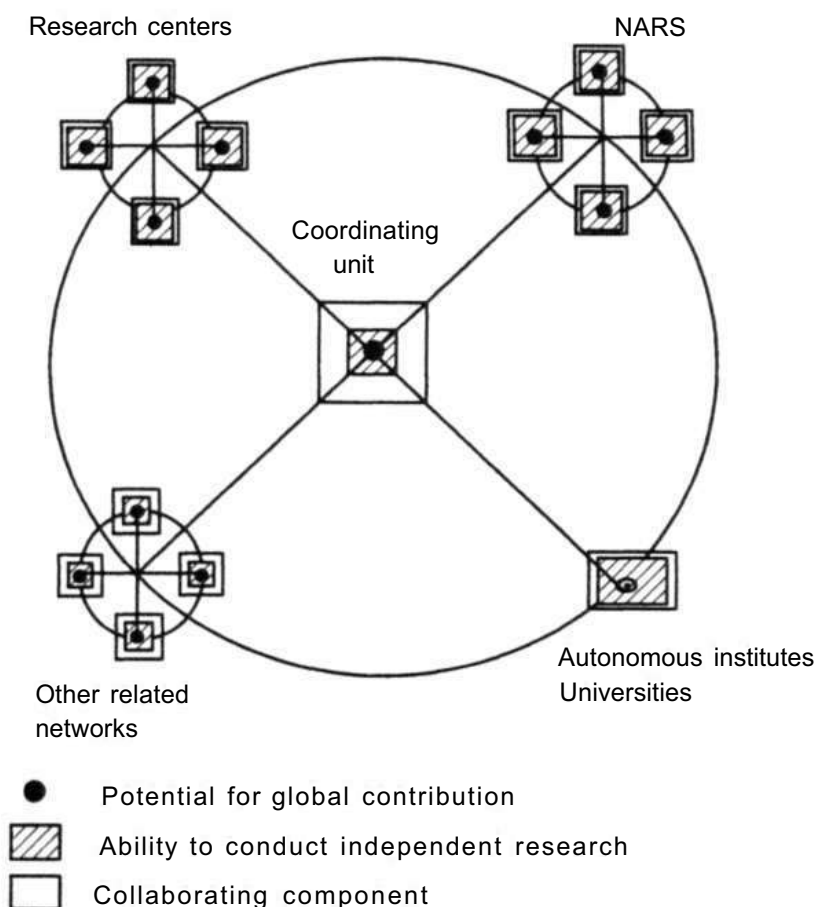
## Advantages of Working Groups

Some of the advantages of Working Groups (WGs) are:

- Enhanced research partnerships in the region to address major production problems,
- Flexibility in operation to initiate and conclude research on specific problems,
- Cost-effectiveness and operational efficiency due to small size of WGs,
- Use of existing staff and facilities, avoidance of duplication, and saving of time and resources,
- Attractiveness of collective approach to donors for funding, and
- Support of overlapping activities of other WGs in areas such as training.

## Organization and Structure of Working Groups

Working Groups consist of interested members from national, international, and regional programs/institutions. Each WG nominates a Technical Coordinator (TC) to be responsible for the liaison, coordination, and harmonizing of research. A TC is normally an expert in the subject, and can be from any collaborating institution. An example of a WG structure is given in Figure 1. Usually the TC of a WG is supported by a network or institution for the provision of necessary administrative and logistic support.



**Figure 1. Structure of a Working Group,**

## **Working Group on Groundnut Aflatoxin Management**

A Working Group on Groundnut Aflatoxin Management is to be established, subject to approval at this meeting, to coordinate research on groundnut aflatoxin management.

The objectives of the meeting are to:

- Review the progress in recent years in analytical and immunochemical techniques for aflatoxin analysis,
- Document available knowledge on components of integrated management of groundnut aflatoxin problems, and
- Establish priorities for future research and collaboration.

It is hoped that the WG members will be able to share research responsibilities, depending on their capabilities and comparative advantages, and share and exchange research results and information. The goal is to provide management options to farmers for managing groundnut aflatoxin problems for better profits and the health of the human and animal populations of the world.