## Integration of Research, Education and Extension

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The views expressed in this note are made on my own responsibility. They do not represent the views of any of my official superiors nor do those officers stand committed in any manner through this note.

The use of the word "Integration" in the subject matter of the present symposium presupposes that whatever liaison or co-ordination that may now exist between Research and Education is not considered adequate and that one should now go the whole hog and secure a full integration and not mere co-ordination alone. The use of the word co-ordination implies the existence of two separate wings which should meet together and pool and exchange their ideas whereas integration implies a merger of the two. This policy of integration seems to be inconsistent with any existing rule or regulation which prescribes separate qualifications for recruitment of persons in charge of teaching, right from the bottom to the top. These rules create a separate hierarchy of educational personnel in the Department. Whatever be the reason that impelled the authorities in creating such a separate hierarchy, it has to be admitted that this strikes at the root of the principle of integration. Integration to be successful should have one pre-requisite namely, the pooling of all available man power in each branch or subject both in research the teaching wing, and enable the drafting of personnel for either of these wings from that common pool. It should also be possible to change the men from research to teaching subject of course to the limitations imposed by individual aptitudes. As long as you keep a separate set of qualifications, for the men of the teaching wing, no exchange is really possible and it often happens that the men on the research wing continue there only and so also the teaching personnel. If it is argued that the qualifications prescribed for teaching personnel are supplementary to research qualifications, may I ask whether it is not a fact that the existance of these very supplementary qualifications bar out the free exchange of men from research to teaching and vice versa? I am of the view that frequent exchange of men between research and teaching (i. e. a two way traffic) is

necessary for integration of research and teaching. This would ensure that the teaching personnel accquire and pass on to the student a knowledge of all recent developments in the field of research with which they are concerned.

Coming to integration of research and extension, I may refer the demand frequently expressed in certain quarters that practical agriculturists should be associated with the research work going on at Agricultural Research Stations. This demand has been considered as not feasible. It has been contended that the Farmers' week and other deliberations where Farmers are given an opportunity to visit research centres offer adequate opportunities for the practical Farmer to acquaint himself with recent developments in research. I agree that a practical Farmer however learned he may be, may find it difficult to understand and appreciate the actual method of research. He may not for instance understand the need why a particular kind of lay out in a field experiment is adopted or the reasons why a particular method of breeding is utilised. But in assessing progress from the practical and utilitarian point of view, I suppose any practical Farmer would easily understand whether any practical progress useful to his needs has been made. He can also appreciate what difficulties the worker had to confront with during the course of his work. I am of the view that in assessing results every year, one or more practical Farmers should be given an opportunity to understand the progress. Committees of a few Farmers can well be associated with various research centres and they may hold membership from 3 to 5 years during which period they will meet atleast once a year. During such meetings the research workers will explain to them in a manner in which they can understand the problems that were tackled since the previous meetings and the progress that has been achieved. Farmers' Weeks are larger functions where apparently close study of the problems and assessment of the practical progress achieved are not feasible. It is therefore necessary to associate small committees of Farmers consisting of not more than 5 or 6 whenever progress of work is reviewed. These Farmers will serve as carriers of information on progress of research to their villages.

Then there is the extension worker whether working in the Agricultural Department or in the Community Projects and National Extension Service Organisations. Sometimes it is said that there should be a free exchange of men from the extension wing to the research wing and vice versa. This suggestion overlooks the fundamental point that a really good research man is not some one who is

created as such by an order of a competent authority based on a set of rules prescribing particular qualifications. His qualities and competence as a research man are something which are already latent in him and which given an opportunity blossom out into excellent work which very often commands international respect. I concede that administration has to have rules and regulations for whatever it has to do in order to eliminate personal preferences and prejudices. But that is not the same thing as saying that by its mere order, administration can bring into being first class research men. By the same logic administration cannot also create to order first class These activities require basic aptitudes which are extension men. The very administration which goes by rules and regulainherent. tions very often puts a round peg in a square hole only because there are no aptitude tests atleast for recruitment to the subordinate executive ranks before a person is drafted into the research wing or to the extension wing. It is only after one or two years that the officers who supervise the work of new men discover that these recruits are in a wrong place. These men who are in wrong places can be switched on to their proper places and utilised to the full. For instance a person who has a flare for bringing up good posters or exhibitions and who is now in the research wing is ultimately the person who after a few years of experience in the research wing can well be drafted to the extension wing. The very fact that such a person has been in the research wing for some years enables him to have an overall idea of the research work done at our research centres and he can easily put across results of such work to the Farmers. The reverse can also take place. The transfer of such men to their proper places based on a study of aptitudes can create a two way traffic and enrich both fields. In such matters the question will always be asked as to what will happen to the future prospects of these individuals. The reply is that personal interests cannot be the ruling principle in such large matters which affect the public at large.

Integration of research and extension in the same sense as integration of research and education i. e., a merger of the two wings, is not in my view within practical possibilities because of the different aptitudes that men of each wing require. But integration can be partially effected by a free flow of knowledge from the research wing to the extension wing. There are several media for passing on such knowledge and I do not propose to discuss them in this note because I am limiting myself to the administrative angle. The speed with which our extension literature reaches the extension worker or

the Farmer is a very important consideration. As things at present stand we are not moving fast enough. Administratively centralisation of all printing and such items of work may seem feasible. In a centralised unit, each individual or a group of individuals deal with only one aspect of administration. They acquire specialised knowledge in their line and are therefore less liable to commit mistakes in the application of rules and regulations. In handling printing work for instance it is always easier to purchase stationery or printing materials by Departments or units who have specialised in these lines. It is also administratively easier to get all printing jobs done in a central press. But in such an arrangement, they have to wait in que with others with the result for instance that an instructional leaf-let on planting a crop or selection of seed gets ready late and reaches the field staff long after the planting season is over. Ultimately the very purpose of the leaf-let is thus defeated. If speed has to be ensured some sort of decentralisation of such items of work as printing might seem desirable. It might be argued that the compilation of such literature should be taken up sufficiently in advance so as to facilitate the literature to be printed in time and to reach the Farmer in time. I am afraid this is difficult. The research man should first find out what exactly he has to give to the extension man before the extension man decides how he can sell this idea to the Farmer in a manner and with a speed which will enable the Farmer to get the idea before the proper season.

While it is true our research people are writing up a number of reports or papers, I have been wondering whether we have an organisation, however small it may be, which actually contacts the research men or probes into their reports to get at material for extension work. There seems no use in any one arguing that it is the research man that should hand over his results quickly to the extension man nor for the research man to argue that it is for the extension man to himself cull out what he wants. I am of the view that we should have a small unit of 5 or 6 men who should constantly probe into the various reports of research men and meet them frequently in an attempt to get at material for extension work which should be turned out to the Farmer with speed and in time.