

# Integration of Agricultural Research, Education and Extension

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The subject chosen for the symposium is appropriate on a memorable occasion as the celebration of the Golden Jubilee of the Agricultural Research Institute, Coimbatore. With several Research, training and Extension Schemes included in the Second Five Year Plan, it is desirable that the several aspects of Agricultural Science are properly co-ordinated for maximum effects.

In all progressive countries research, teaching and extension aspects of Agriculture have been developed though to different degrees. In India also, most of the States now have Research Institutes, Agricultural Colleges and Extension wings in their Agricultural Departments, though a few years back several states had Research and Extension only depending on neighbouring state for training of technical personnel or for results of research.

While the three wings of the State Agricultural Departments have now developed fairly well to the extent necessary for each state, yet the integration between them does not seem to have developed to the extent necessary for their mutual benefit and for maximum utilisation of these for the country's advancement. There is not only need for proper co-ordination between research, teaching and extension of the State Agricultural Departments, but also to bring into the picture the little extension work done by missions and mutts, research and teaching in Universities and other private organisations and Research Institutes of the Union Government located in the State. There should be harmonious co-ordination of activities of the several agencies if the country is to derive the most from these.

It is easy to effect integration between Research and teaching as Research Institutes and Agricultural Colleges are located side by side in a campus if not in the same building. Research Officers can do part time teaching in the College and teachers can similarly do some research work. It is often argued that research officers do not make good teachers and it would be waste of time to detract them from their research work for routine teaching work. While this may be true of very highly specialised Research workers and those

temperamentally unsuitable for instructional work yet it cannot be denied that College Students should have the benefit of current research work through some special lectures. The teachers themselves should be given opportunities for research. The policy regarding integration of research and teaching in the Madras Agricultural Department was changed twice or thrice before 1940. The Professor of Agriculture was also Superintendent of the Central Farm for some years and for some years the posts were held by separate persons thereby even teaching, let alone research, suffered for want of full facilities. Happily this state of affairs was set right in recent years.

Every one will admit that in Agriculture and Animal Husbandry, the results of research for the most part are slow to find practical and especially, universal application. The causes are partly inherent in the problem and partly due to lack of appreciation of the significance in our organisation. Precise and clear cut findings are readily accepted by cultivators but not results which have value in the long run. The farmers are ignorant of the scientific laws while the research works are often ignorant of the inexorable practical laws which a farmer uses in his battle with nature. Research men are men of ability, highly qualified and trained in sciences to be fitted for their work. But frequently and more often than not, they have little practical perspective in the vocation of farming. Application of knowledge in the field with its manifold practical applications bring the research worker into a realm entirely different from that in which he is constantly at work. The extension work is getting specialised with large amount of targetted work to be done under the Plans. The integration of research and extension is more difficult. The Deputy Directors of Agriculture were for some years in the past in charge of Research Stations and have even acted as Specialists. For obvious reasons of specialisation this practice was given up. Some Research Officers were transferred to Extension permanently, not with a set purpose but due to exigencies of service. These methods of exchange would do no good to either of wings as their valuable experience in their own lines will be lost. The present system of training special Extension Officers from research sections as Seed Development Officers, Cotton Extension Officer, Oil Seeds Development Officers and Plant Protection Officers no doubt form a better link between research and extension at a higher level. The link on the lower executive level will be better forged through special research assistants under the

Extension Officers. These assistants have to be changed at short periodic intervals so that they do not stagnate for want of fresh research back ground.

Integration between Extension and teaching is to some extent achieved in respect of Agronomy by the Regional Deputy Directors of Agriculture taking up some classes on Extension for the final year class. This may be strengthened with the proposed development of the Extension Wing in the College. Similar linking of Extension and teaching in other specialities seems desirable.

Co-ordination of the three functions: Research, Teaching and Extension, is much more difficult of achievement in practice. Perhaps co-ordination at higher level of administration is desirable if the branches are not to suffer for want of proper attention. The College Day and Conference, the district work officers conferences, the Farmers' Day Celebrations on Research Farms, have their own part to play in effecting co-ordination of the different branches but much depends on the personalities that come together on such occasions.